

## LIST OF PUBLICATIONS

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**Bioresource Engineering and Department of Mining and Materials Engineering,  
McGill University, Montreal, Canada**

**Chemical Engineering Department, Western University, London, Ontario, Canada**

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*This list of publications is not complete or fully up-to-date. It includes listings of refereed journal papers, conference papers (partial), book chapters as well as books authored or edited by Professor Mujumdar. Please visit the websites noted above for additional details about current research areas, teaching interests, academic and professional service contributions, etc.*



## **PUBLICATIONS OF DR. ARUN MUJUMDAR (1978- PRESENT, PARTIAL LIST)**

### **1. PUBLICATIONS IN REFEREED JOURNALS**

#### **2016**

- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Thermal Performance of Coiled Square Tubes at Large Temperature Differences for Heat Exchanger Application (2016) *Heat Transfer Engineering*, 37 (16), pp. 1341-1356.
- Kurnia, J.C., Sasmito, A.P., Shamim, T., Mujumdar, A.S. Numerical investigation of heat transfer and entropy generation of laminar flow in helical tubes with various cross sections (2016) *Applied Thermal Engineering*, 102, pp. 849-860.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Potential catalyst savings in heterogeneous gaseous spiral coiled reactor utilizing selective wall coating - A computational study (2016) *Computers and Chemical Engineering*, 88, pp. 59-72.
- Tong, W., Somasundaram, K., Birgersson, E., Mujumdar, A.S., Yap, C. Thermo-electrochemical model for forced convection air cooling of a lithium-ion battery module (2016) *Applied Thermal Engineering*, 99, pp. 672-682.
- Jiang, H., Zhang, M., Mujumdar, A.S., Lim, R.-X. Drying uniformity analysis of pulse-spouted microwave-freeze drying of banana cubes (2016) *Drying Technology*, 34 (5), pp. 539-546.
- Xu, P., Sasmito, A.P., Qiu, S., Mujumdar, A.S., Xu, L., Geng, L. Heat transfer and entropy generation in air jet impingement on a model rough surface (2016) *International Communications in Heat and Mass Transfer*, 72, pp. 48-56.
- Jiang, H., Zhang, M., Fang, Z., Mujumdar, A.S., Xu, B. Effect of different dielectric drying methods on the physic-chemical properties of a starch-water model system (2016) *Food Hydrocolloids*, 52, pp. 192-200.

#### **2015**

- Chiewchan, N., Mujumdar, A.S., Devahastin, S. Application of Drying Technology to Control Aflatoxins in Foods and Feeds: A Review (2015) *Drying Technology*, 33 (14), pp. 1700-1707.
- Aghbashlo, M., Hosseinpour, S., Mujumdar, A.S. Application of Artificial Neural Networks (ANNs) in Drying Technology: A Comprehensive Review (2015) *Drying Technology*, 33 (12), pp. 1397-1462.
- Kurnia, J.C., Sasmito, A.P., Akhtar, S., Shamim, T., Mujumdar, A.S. Numerical Investigation of Heat Transfer Performance of Various Coiled Square Tubes for Heat Exchanger Application (2015) *Energy Procedia*, 75, pp. 3168-3173.
- Sasmito, A.P., Kurnia, J.C., Shamim, T., Mujumdar, A.S. Optimization of Design Parameters for an Open-cathode Polymer Electrolyte Fuel Cells Stack Utilizing Taguchi Method (2015) *Energy Procedia*, 75, pp. 2027-2032.

- Tong, W., Somasundaram, K., Birgersson, E., Mujumdar, A.S., Yap, C. Numerical investigation of water cooling for a lithium-ion bipolar battery pack (2015) *International Journal of Thermal Sciences*, 94, art. no. 4406, pp. 259-269.
- Esmailpour, K., Hosseinalipour, M., Bozorgmehr, B., Mujumdar, A.S. A numerical study of heat transfer in a turbulent pulsating impinging jet (2015) *Canadian Journal of Chemical Engineering*, 93 (5), pp. 959-969.
- Zhang, M., Chen, H., Mujumdar, A.S., Zhong, Q., Sun, J. Recent Developments in High-Quality Drying with Energy-Saving Characteristic for Fresh Foods (2015) *Drying Technology*, 33 (13), pp. 1590-1600.
- Gao, Y., Zhang, M., Wang, Y., Mujumdar, A.S., Chen, W. Textural and sensory properties of herring (*Clupea harengus*) cubes in Chinese-type paste as affected by prefrying methods (2015) *Journal of Aquatic Food Product Technology*, 24 (2), pp. 179-190.
- Kurnia, J.C., Sasmito, A.P., Hassani, F.P., Mujumdar, A.S. Introduction and evaluation of a novel hybrid brattice for improved dust control in underground mining faces: A computational study (2015) *International Journal of Mining Science and Technology*, 25 (4), art. no. 528, pp. 537-543.
- Ghasemkhani, H., Keyhani, A., Aghbashlo, M., Rafiee, S., Mujumdar, A.S. Improving exergetic performance parameters of a rotating-tray air dryer via a simple heat exchanger (2016) *Applied Thermal Engineering*, 94, pp. 13-23.
- Jiang, H., Zhang, M., Fang, Z., Mujumdar, A.S., Xu, B. Effect of different dielectric drying methods on the physic-chemical properties of a starch-water model system (2016) *Food Hydrocolloids*, 52, pp. 192-200.
- Xiao, H.-W., Gao, Z.-J., Mujumdar, A.S. Seafood: Mining shell waste will not be easy (2015) *Nature*, 525 (7569), p. 321.
- Tohidi, A., Ghaffari, H., Nasibi, H., Mujumdar, A.S. Heat transfer enhancement by combination of chaotic advection and nanofluids flow in helically coiled tube (2015) *Applied Thermal Engineering*, 86, art. no. 6562, pp. 91-105.
- Tohidi, A., Hosseinalipour, S.M., Shokrpour, M., Mujumdar, A.S. Heat transfer enhancement utilizing chaotic advection in coiled tube heat exchangers (2015) *Applied Thermal Engineering*, 76, pp. 185-195.
- Xiao, H.-W., Mujumdar, A.S., Che, L. Pollution: uncouple from economy boom (2015) *Nature*, 517, pp. 145.
- Jiang, H., Zhang, M., Fang, Z., Mujumdar, A.S., Xu, B. Effect of different dielectric drying methods on the physic-chemical properties of a starch-water model system (2015) *Food Hydrocolloids*, 52, pp. 192-200
- Tohidi, A., Ghaffari, H., Nasibi, H., Mujumdar, A.S. Heat transfer enhancement by combination of chaotic advection and nanofluids flow in helically coiled tube (2015) *Applied Thermal Engineering*, 86, 6562, pp. 91-105.
- Tohidi, A., Hosseinalipour, S.M., Shokrpour, M., Mujumdar, A.S. Heat transfer enhancement utilizing chaotic advection in coiled tube heat exchangers(2015) *Applied Thermal Engineering*, 76, pp. 185-195.
- Show, K.-Y., Lee, D.-J., Mujumdar, A.S. Advances and Challenges on Algae Harvesting and Drying (2015) *Drying Technology*, 33 (4), pp. 386-394.

- Ahmadi, H., Rajabi-Zargarabadi, M., Mujumdar, A.S., Mohammadpour, J. Numerical modeling of a turbulent semi-confined slot jet impinging on a concave surface (2015) *Thermal Science*, 19 (1), pp. 129-140.
- Tong, W., Koh, W.Q., Birgersson, E., Mujumdar, A.S., Yap, C. Correlating uncertainties of a lithium-ion battery - A Monte Carlo simulation (2015) *International Journal of Energy Research*, 39 (6), pp. 778-788.
- Liu, P., Mujumdar, A.S., Zhang, M., Jiang, H. Comparison of Three Blanching Treatments on the Color and Anthocyanin Level of the Microwave-Assisted Spouted Bed Drying of Purple Flesh Sweet Potato (2015) *Drying Technology*, 33 (1), pp. 66-71.
- Chang, Y.-R., Lee, D.-J., Chang, J.-S., Mujumdar, A.S. Enhancement of Lutein Yield from Coagulated *Chlorella* sp. ESP-6 with Sodium Hypochlorite (2015) *Drying Technology*, 33 (4), pp. 429-433.
- Su, Y., Zhang, M., Mujumdar, A.S. Recent Developments in Smart Drying Technology (2015) *Drying Technology*, 33 (3), pp. 260-276.
- Song, C.F., Cui, Z.W., Jin, G.Y., Mujumdar, A.S., Yu, J.F. Effects of Four Different Drying Methods on the Quality Characteristics of Peeled Litchis (*Litchi chinensis* Sonn.) (2015) *Drying Technology*, 33 (5), pp. 583-590.
- Gao, Y., Zhang, M., Wang, Y., Mujumdar, A.S., Chen, W. Textural and sensory properties of herring (*Clupea harengus*) cubes in Chinese-type paste as affected by prefrying methods (2015) *Journal of Aquatic Food Product Technology*, 24 (2), pp. 179-190.

## 2014

- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. CFD simulation of methane dispersion and innovative methane management in underground mining faces (2014) *Applied Mathematical Modelling*, 38 (14), pp. 3467-3484.
- Sasmito, A.P., Kurnia, J.C., Birgersson, E., Mujumdar, A.S. Computational evaluation of thermal management strategies in an underground mine (2014) *Applied Thermal Engineering*, Article in Press.
- Kurnia, J.C., Sasmito, A.P., Wong, W.Y., Mujumdar, A.S. Prediction and innovative control strategies for oxygen and hazardous gases from diesel emission in underground mines (2014) *Science of the Total Environment*, 481 (1), pp. 317-334.
- Jiang, H., Zhang, M., Mujumdar, A.S., Lim, R.X. Changes of microwave structure/dielectric properties during microwave freeze-drying process banana chips (2014) *International Journal of Food Science and Technology*, 49 (4), pp. 1142-1148.
- Gong, Z.-X., Mujumdar, A.S. Process Simulation of Combustion Drying with Simprosys Software (2014) *Drying Technology*, 32 (4), pp. 447-454.
- Mohan, B., Puqing, J., Sasmito, A.P., Kurnia, J.C., Jangam, S.V., Mujumdar, A.S. Energy-efficient novel heterogeneous gaseous T-junction microreactor design utilizing inlet flow pulsation (2014) *Industrial and Engineering Chemistry Research*, 53 (49), pp. 18699-18710.
- Tohidi, A., Hosseinalipour, S.M., Monfared, Z.G., Mujumdar, A.S. Laminar heat transfer enhancement utilizing nanofluids in a chaotic flow (2014) *Journal of Heat Transfer*, 136 (9), art. no. 091704.

- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Dust dispersion and management in underground mining faces (2014) *International Journal of Mining Science and Technology*, 24 (1), pp. 39-44.
- Roknul, A.S.M., Zhang, M., Mujumdar, A.S., Wang, Y. A Comparative Study of Four Drying Methods on Drying Time and Quality Characteristics of Stem Lettuce Slices (*Lactuca sativa* L.) (2014) *Drying Technology*, 32 (6), pp. 657-666.
- Wu, Z., Yue, L., Li, Z., Li, J., Mujumdar, A.S., Rehkopf, J.A. Pulse Combustion Spray Drying of Egg White: Energy Efficiency and Product Quality (2014) *Food and Bioprocess Technology*, 8 (1), pp. 148-157.
- Lu, Y., Zhang, M., Liu, H., Mujumdar, A.S., Sun, J., Zheng, D. Optimization of Potato Cube Drying in a Microwave-Assisted Pulsed Spouted Bed (2014) *Drying Technology*, 32 (8), pp. 960-968.
- Kurnia, J.C., Sasmito, A.P., Birgersson, E., Shamim, T., Mujumdar, A.S. Evaluation of mass transport performance in heterogeneous gaseous in-plane spiral reactors with various cross-section geometries at fixed cross-section area (2014) *Chemical Engineering and Processing: Process Intensification*, 82, pp. 101-111.
- Hosseinalipour, S.M., Tohidi, A., Mashaei, P.R., Mujumdar, A.S. Experimental investigation of mixing in a novel continuous chaotic mixer (2014) *Korean Journal of Chemical Engineering*, 31 (10), pp. 1757-1765.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Simulation of a novel intermittent ventilation system for underground mines (2014) *Tunnelling and Underground Space Technology*, 42, pp. 206-215.
- Zolfagharian, M.M., Rajabi-Zargarabadi, M., Mujumdar, A.S., Valipour, M.S., Asadollahi, M. Optimization of turbine blade cooling using combined cooling techniques (2014) *Engineering Applications of Computational Fluid Mechanics*, 8 (3), pp. 462-475.
- Shaker, M., Birgersson, E., Mujumdar, A.S. Extended Maxwell model for the thermal conductivity of nanofluids that accounts for nonlocal heat transfer (2014) *International Journal of Thermal Sciences*, 84, pp. 260-266.
- Mohammadpour, J., Rajabi-Zargarabadi, M., Mujumdar, A.S., Ahmadi, H. Effect of intermittent and sinusoidal pulsed flows on impingement heat transfer from a concave surface (2014) *International Journal of Thermal Sciences*, 76, pp. 118-127.
- Mohammadpour, J., Zolfagharian, M.M., Mujumdar, A.S., Zargarabadi, M.R., Abdulhazadeh, M. Heat transfer under composite arrangement of pulsed and steady turbulent submerged multiple jets impinging on a flat surface (2014) *International Journal of Thermal Sciences*, 86, pp. 139-147.
- Aghbashlo, M., Sotudeh-Gharebagh, R., Zarghami, R., Mujumdar, A.S., Mostoufi, N. Measurement Techniques to Monitor and Control Fluidization Quality in Fluidized Bed Dryers: A Review (2014) *Drying Technology*, 32 (9), pp. 1005-1051.
- Li, R., Huang, L., Zhang, M., Mujumdar, A.S., Wang, Y.C. Freeze Drying of Apple Slices with and without Application of Microwaves (2014) *Drying Technology*, 32 (15), pp. 1769-1776.

- Mothibe, K.J., Zhang, M., Mujumdar, A.S., Wang, Y.C., Cheng, X. Effects of Ultrasound and Microwave Pretreatments of Apple Before Spouted Bed Drying on Rate of Dehydration and Physical Properties (2014) *Drying Technology*, 32 (15), pp. 1848-1856.
- Jiang, H., Zhang, M., Mujumdar, A.S., Lim, R.-X. Comparison of drying characteristic and uniformity of banana cubes dried by pulse-spouted microwave vacuum drying, freeze drying and microwave freeze drying (2014) *Journal of the Science of Food and Agriculture*, 94 (9), pp. 1827-1834.
- Mothibe, K.J., Wang, C.-Y., Mujumdar, A.S., Zhang, M. Microwave-Assisted Pulse-Spouted Vacuum Drying of Apple Cubes (2014) *Drying Technology*, 32 (15), pp. 1762-1768.
- Wang, Y., Zhang, M., Mujumdar, A.S., Chen, H. Drying and Quality Characteristics of Shredded Squid in an Infrared-Assisted Convective Dryer (2014) *Drying Technology*, 32 (15), pp. 1828-1839.
- Qi, L.-L., Zhang, M., Mujumdar, A.S., Meng, X.-Y., Chen, H.-Z. Comparison of Drying Characteristics and Quality of Shiitake Mushrooms (*Lentinus edodes*) Using Different Drying Methods (2014) *Drying Technology*, 32 (15), pp. 1751-1761.
- Chen, F., Zhang, M., Mujumdar, A.S., Jiang, H., Wang, L. Production of Crispy Granules of Fish: A Comparative Study of Alternate Drying Techniques (2014) *Drying Technology*, 32 (12), pp. 1512-1521.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Laminar heat transfer performance of power law fluids in coiled square tube with various configurations (2014) *International Communications in Heat and Mass Transfer*, 57, pp. 100-108.
- Wang, R., Huo, H., Dou, R., Li, Z., Mujumdar, A.S. Effect of the Inside Placement of Electrically Conductive Beads on Electric Field Uniformity in a Microwave Applicator (2014) *Drying Technology*, 32 (16), pp. 1997-2004.
- Liu, P., Zhang, M., Mujumdar, A.S. Purple-Fleshed Sweet Potato Cubes Drying in a Microwave-Assisted Spouted Bed Dryer (2014) *Drying Technology*, 32 (15), pp. 1865-1871.
- Wang, H., Zhang, M., Mujumdar, A.S. Comparison of Three New Drying Methods for Drying Characteristics and Quality of Shiitake Mushroom (*Lentinus edodes*) (2014) *Drying Technology*, 32 (15), pp. 1791-1802.
- Freire, F.B., Vieira, G.N.A., Freire, J.T., Mujumdar, A.S. Trends in Modeling and Sensing Approaches for Drying Control (2014) *Drying Technology*, 32 (13), pp. 1524-1532.

## 2013

- Wang, Y., Zhang, M., Mujumdar, A.S., Mothibe, K.J., Roknul Azam, S.M. Study of Drying Uniformity in Pulsed Spouted Microwave-Vacuum Drying of Stem Lettuce Slices with Regard to Product Quality (2013) *Drying Technology*, 31 (1), pp. 91-101.
- Kurnia, J.C., Sasmito, A.P., Jangam, S.V., Mujumdar, A.S. Heat transfer in coiled square tubes for laminar flow of slurry of microencapsulated phase change material (2013) *Heat Transfer Engineering*, 34 (11-12), pp. 994-1007.

- Wang, Y., Zhang, M., Mujumdar, A.S. Effect of cassava starch gel, fish gel and mixed gels and thermal treatment on structure development and various quality parameters in microwave vacuum-dried gel slices (2013) *Food Hydrocolloids*, 33 (1), pp. 26-37.
- Wang, Y., Zhang, M., Mujumdar, A.S., Mothibe, K.J. Quality Changes of Dehydrated Restructured Fish Product from Silver Carp (*Hypophthalmichthys molitrix*) as Affected by Drying Methods (2013) *Food and Bioprocess Technology*, 6 (7), pp. 1664-1680.
- Tohidi, A., Hosseinalipour, S.M., Taheri, P., Nouri, N.M., Mujumdar, A.S. Chaotic advection induced heat transfer enhancement in a chevron-type plate heat exchanger (2013) *Heat and Mass Transfer/Waerme- und Stoffuebertragung*, pp. 1-14. Article in Press.
- Sasmito, A.P., Shamim, T., Mujumdar, A.S. Passive thermal management for PEM fuel cell stack under cold weather condition using phase change materials (PCM) (2013) *Applied Thermal Engineering*, 58 (1-2), pp. 615-625.
- Jiang, H., Zhang, M., Liu, Y., Mujumdar, A.S., Liu, H. The energy consumption and color analysis of freeze/microwave freeze banana chips (2013) *Food and Bioproducts Processing*, . Article in Press.
- Wang, L., Zhang, M., Mujumdar, A.S., Wang, Y., Zhu, C. Restructured crispy fish cubes containing *Salicornia bigelovii* Torr. developed with microwave vacuum drying (2013) *Journal of Aquatic Food Product Technology*, 22 (3), pp. 226-240.
- Wu, Z., Xie, J., Li, E., Mujumdar, A.S. Novel gas-fired pulse combustors-design evaluation via simulation (2013) *JP Journal of Heat and Mass Transfer*, 7 (2), pp. 129-156.
- Qiufang, T., Zhonghua, W., Mujumdar, A.S. Optimization of liquid steel flow in an industrial tundish (2013) *Advanced Materials Research*, 634-638 (1), pp. 1752-1755.
- Qiu, S., Xu, P., Qiao, X., Mujumdar, A.S. Flow and mixing characteristics of pulsed confined opposed jets in turbulent flow regime (2013) *Heat and Mass Transfer/Waerme- und Stoffuebertragung*, 49 (2), pp. 277-284.
- Sasmito, A.P., Birgersson, E., Ly, H.C., Mujumdar, A.S. Some approaches to improve ventilation system in underground coal mines environment - A computational fluid dynamic study (2013) *Tunnelling and Underground Space Technology*, 34, pp. 82-95.
- Jiang, H., Zhang, M., Mujumdar, A.S., Lim, R.-X. Analysis of Temperature Distribution and SEM Images of Microwave Freeze Drying Banana Chips (2013) *Food and Bioprocess Technology*, 6 (5), pp. 1144-1152.
- Kurnia, J.C., Sasmito, A.P., Tong, W., Mujumdar, A.S. Energy-efficient thermal drying using impinging-jets with time-varying heat input - A computational study (2013) *Journal of Food Engineering*, 114 (2), pp. 269-277.
- Kurnia, J.C., Sasmito, A.P., Jangam, S.V., Mujumdar, A.S. Improved design for heat transfer performance of a novel phase change material (PCM) thermal energy storage (TES) (2013) *Applied Thermal Engineering*, 50 (1), pp. 896-907.



## 2012

- Wang, Y., Zhang, M., Mujumdar, A.S., Mothibe, K.J. Microwave-Assisted Pulse-Spouted Bed Freeze-Drying of Stem Lettuce Slices-Effect on Product Quality (2012) *Food and Bioprocess Technology*, pp. 1-14. Article in Press.
- Hosseinalipour, M., Esmailpour, K., Yahyae, A., Mujumdar, A.S. Numerical simulation of flow and thermal characteristics of harmonic pulsed laminar impinging streams (2012) *Asia-Pacific Journal of Chemical Engineering*, Article in Press.
- Sasmito, A.P., Shamim, T., Birgersson, E., Mujumdar, A.S. Computational study of edge cooling for open-cathode polymer electrolyte fuel cell stacks (2012) *Journal of Fuel Cell Science and Technology*, 9 (6), art. no. 61008.
- Wu, Z., Zhang, J., Li, Z., Xie, J., Mujumdar, A.S. Production of a solid fuel using sewage sludge and spent cooking oil by immersion frying (2012) *Journal of Hazardous Materials*, 243, pp. 357-363.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Laminar convective heat transfer for in-plane spiral coils of non-circular cross-sections ducts: A computational fluid dynamics study (2012) *Thermal Science*, 16 (1), pp. 109-118.
- Wang, Y., Zhang, M., Mujumdar, A.S., Mothibe, K.J., Roknul Azam, S.M. Effect of blanching on microwave freeze drying of stem lettuce cubes in a circular conduit drying chamber (2012) *Journal of Food Engineering*, 113 (2), pp. 177-185.
- Somasundaram, K., Birgersson, E., Mujumdar, A.S. Model for a bipolar Li-ion battery module: Automated model generation, validation and verification (2012) *Applied Mathematics and Computation*, 219 (4), pp. 2231-2245.
- Mounir, S., Allaf, T., Mujumdar, A.S., Allaf, K. Swell Drying: Coupling Instant Controlled Pressure Drop DIC to Standard Convection Drying Processes to Intensify Transfer Phenomena and improve Quality-An Overview (2012) *Drying Technology*, 30 (14), pp. 1508-1531.
- Qiu, S., Xu, P., Qiao, X., Mujumdar, A.S. Flow and mixing characteristics of pulsed confined opposed jets in turbulent flow regime (2012) *Heat and Mass Transfer/Waerme- und Stoffuebertragung*, pp. 1-8. Article in Press.
- Sasmito, A.P., Kurnia, J.C., Wang, W., Jangam, S.V., Mujumdar, A.S. Numerical analysis of laminar heat transfer performance of in-plane spiral ducts with various cross-sections at fixed cross-section area (2012) *International Journal of Heat and Mass Transfer*, 55 (21-22), pp. 5882-5890.
- Zhonghua, W., Long, W., Zhanyong, L., Mujumdar, A.S. Atomization and Drying Characteristics of Sewage Sludge inside a Helmholtz Pulse Combustor. *Drying Technology* 2012, 30(10), 1105-1112.
- Jiang, Y., Xu, P., Mujumdar, A.S., Qiu, S., Jiang, Z. A Numerical Study on the Convective Heat Transfer Characteristics of Pulsed Impingement Drying. *Drying Technology* 2012, 30(10), 1056-1061.
- Sasmito, A.P., Kurnia, J.C., Wang, W., Jangam, S.V., Mujumdar, A.S. Numerical analysis of laminar heat transfer performance of in-plane spiral ducts with various cross-sections at fixed cross-section area. *International Journal of Heat and Mass Transfer* 2012, Article in press.
- An, H., Li, A., Sasmito, A.P., Kurnia, J.C., Jangam, S.V., Mujumdar, A.S. Computational fluid dynamics (CFD) analysis of micro-reactor performance:

Effect of various configurations. *Chemical Engineering Science* 2012, 75, 85-95.

- Qiu, S., Xu, P., Jiang, Z., Mujumdar, A.S. Numerical modeling of pulsed laminar opposed impinging jets. *Engineering Applications of Computational Fluid Mechanics* 2012, 6(2), 195-202.
- Wang, Y., Zhang, M., Mujumdar, A.S. Influence of green banana flour substitution for cassava starch on the nutrition, color, texture and sensory quality in two types of snacks, *LWT - Food Science and Technology* 2012, 47 (1), 175-182.
- Huang, L.-L., Zhang, M., Wang, L.-P., Mujumdar, A.S., Sun, D.-F. Influence of combination drying methods on composition, texture, aroma and microstructure of apple slices, *LWT - Food Science and Technology* 2012, 47 (1), 183-188.
- Kurnia, J.C., Birgersson, E., Mujumdar, A.S. Finite deformation of fast-response thermo-sensitive hydrogels - A computational study, *Polymer*, Article in Press.
- Pawar, S.B., Mujumdar, A.S., Thorat, B.N. CFD analysis of flow pattern in the agitated thin film evaporator. *Chemical Engineering Research and Design* 2012, 90(6), 757-765.
- Yan, W.-Q., Zhang, M., Huang, L.-L., Mujumdar, A.S., Tang, J. Influence of microwave drying method on the characteristics of the sweet potato dices. *Journal of Food Processing and Preservation* 2012, Article in Press.
- Somasundaram, K., Birgersson, E., Mujumdar, A.S. Thermal-electrochemical model for passive thermal management of a spiral-wound lithium-ion battery, *Journal of Power Sources* 2012, 203, 84-96.
- Shaker, M., Ghaedamini, H., Sasmito, A.P., Kurnia, J.C., Jangam, S.V., Mujumdar, A.S. Numerical investigation of laminar mass transport enhancement in heterogeneous gaseous microreactors, *Chemical Engineering and Processing: Process Intensification* 2012, 54, 1-11.
- Sasmito, A.P., Birgersson, E., Mujumdar, A.S. A novel flow reversal concept for improved thermal management in polymer electrolyte fuel cell stacks, *International Journal of Thermal Sciences* 2012, 54, 242-252.
- Wang, Y., Zhang, M., Mujumdar, A.S., Mothibe, K.J. Quality Changes of Dehydrated Restructured Fish Product from Silver Carp (*Hypophthalmichthys molitrix*) as Affected by Drying Methods, *Food and Bioprocess Technology* 2012, 1-17, Article in Press.
- Woo, M.W., Che, L.M., Daud, W.R.W., Mujumdar, A.S., Chen, X.D. Highly swirling transient flows in spray dryers and consequent effect on modeling of particle deposition, *Chemical Engineering Research and Design* 2012, 90 (3), 336-345.
- Kurnia, J.C., Birgersson, E., Mujumdar, A.S. A phenomenological model for hydrogels with rigid skin formation, *International Journal of Applied Mechanics* 2012, 4(1), art. no. 12001361.
- Xu, P., Qiu, S., Yu, M., Qiao, X., Mujumdar, A.S. A study on the heat and mass transfer properties of multiple pulsating impinging jets, *International Communications in Heat and Mass Transfer* 2012, 39 (3), 378-382.
- Jiang, H., Zhang, M., Mujumdar, A.S., Lim, R.-X. Analysis of Temperature Distribution and SEM Images of Microwave Freeze Drying Banana Chips, *Food and Bioprocess Technology* 2012, 1-9. Article in Press.

- Sasmito, A.P., Kurnia, J.C., Mujumdar, A.S. Numerical evaluation of transport phenomena in a T-junction microreactor with coils of different configurations, *Industrial and Engineering Chemistry Research* 2012, 51 (4), 1970-1980.
- Kurnia, J.C., Birgersson, E., Mujumdar, A.S. Analysis of a model for pH-sensitive hydrogels, *Polymer* 2012, 53 (2), 613-622.
- Sasmito, A.P., Birgersson, E., Lum, K.W., Mujumdar, A.S. Fan selection and stack design for open-cathode polymer electrolyte fuel cell stacks, *Renewable Energy* 2012, 37 (1), 325-332.
- Arasu, A.V., Mujumdar, A.S. Numerical study on melting of paraffin wax with Al 20 3 in a square enclosure, *International Communications in Heat and Mass Transfer* 2012, 39(1), 8-16.
- Liu, P., Zhang, M., Mujumdar, A.S. Comparison of three microwave-assisted drying methods on the physiochemical, nutritional and sensory qualities of re-structured purple-fleshed sweet potato granules, *International Journal of Food Science and Technology* 2012, 47(1), 141-147.

## 2011

- Zhang, F., Zhang, M., Mujumdar, A.S. Drying characteristics and quality of restructured wild cabbage chips processed using different drying methods. *Drying Technology* 2011, 29(6), 682-688.
- Nahimana, H., Mujumdar, A.S., Zhang, M. Drying and radial shrinkage characteristics and changes in color and shape of carrot tissues (*Daucus Carota L*) during air drying. *African Journal of Biotechnology* 2011, 10 (68) , 15327-15345.
- Somasundaram, K., Birgersson, E., Mujumdar, A.S. Analysis of a model for an electrochemical capacitor *Journal of the Electrochemical Society* 2011, 158 (11) , A1220-A1230.
- Wang, R., Zhang, M., Mujumdar, A.S., Jiang, H. Effect of salt and sucrose content on dielectric properties and microwave freeze drying behavior of re-structured potato slices. *Journal of Food Engineering* 2011, 106 (4) , 290-297.
- Nahimana, H., Zhang, M., Mujumdar, A.S., Ding, Z. Mass transfer modeling and shrinkage consideration during osmotic dehydration of fruits and vegetables. *Food Reviews International* 2011, 27 (4) , 331-356.
- Ren, A.-Q., Zhang, M., Mujumdar, A.S. Effect of water activity and glass transition on critical preservation conditions of dried squids. *International Agrophysics* 2011, 25 (3) , 205-209.
- Li, X., Zhang, M., Duan, X., Mujumdar, A.S. Effect of nano-silver coating on microbial control of microwave-freeze combined dried sea cucumber. *International Agrophysics* 2011, 25 (2) , 181-186.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Numerical investigation of laminar heat transfer performance of various cooling channel designs. *Applied Thermal Engineering* 2011, 31 (6-7), 1293-1304.
- Pawar, S.B., Patil, R., Mujumdar, A.S., Thorat, B.N. Mathematical modeling of agitated thin-film dryer. *Drying Technology* 2011, 29(6), 719-728.

- Pawar, S.B., Mujumdar, A.S., Thorat, B.N. Flow pattern and heat transfer in agitated thin film dryer. *Chemical Engineering and Processing*, available online.
- Huang, L.-L., Zhang, M., Yan, W.-Q., Mujumdar, A.S., Sun, D.-F. Rehydration characteristics of freeze-dried strawberry pieces as affected by whey protein edible coatings. *International Journal of Food Science and Technology* 2011, 46 (4), 671-677.
- Huang, L.-L., Zhang, M., Mujumdar, A.S., Lim, R.-X. Comparison of four drying methods for re-structured mixed potato with apple chips, *Journal of Food Engineering* 2011, 103(3), 279-284.
- Jangam, S.V., Karthikeyan, M., Mujumdar, A.S. A critical assessment of industrial coal drying technologies: Role of energy, emissions, risk and sustainability, *Drying Technology* 2011, Accepted for publication.
- Kurnia, J. C., Sasmito, A. P. and Mujumdar, A. S. Numerical investigation of laminar heat transfer performance of various cooling channel designs, submitted to *Applied Thermal Engineering* 2011, In press.
- Kurnia, J.C., Birgersson, E., Mujumdar, A.S., Peng, T.S. Kin, Y.Y. and Li, H. A phenomenological model for coupled alcohol and temperature sensitive hydrogels, *International Journal of Applied Mechanics* 2011. {Accepted}
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Laminar convective heat transfer for in-plane spiral coils of non-circular cross sections ducts: A computational fluid dynamics study, *Thermal Science* 2011, accepted.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Evaluation of heat transfer performance of helical coils of non-circular tubes, *Journal of Zhejiang University Science: A* 2011, 12(1), 63-70.
- Mestry, A.P., Mujumdar, A.S., Thorat, B.N. Optimization of Spray Drying of Fermented Mixed Juice of Carrot and Watermelon, *Drying Technology* 2011, Under review.
- Osman, H., Jangam, S.V., Mujumdar, A.S. Recent Innovations on Coal Moisture Removal: A Review of Patent Literature, *Recent Patents on Engineering* 2011, Under review.
- Pawar, S.B., Mujumdar, A.S., Thorat, B.N. Mechanically Agitated Fluidized Bed Drying of Cohesive Particles at Low Air Velocity. *Drying Technology* 2011, Accepted for publication.
- Sasmito, A.P., Birgersson, E., Lum, K.W., Mujumdar, A.S. Fan selection and stack design for open-cathode polymer electrolyte fuel cell stacks, submitted to *Renewable Energy* 2011, under review.
- Sasmito, A.P., Birgersson, E., Mujumdar, A.S. Numerical investigation of liquid water cooling for a proton exchange membrane fuel cell stack. *Heat Transfer Engineering* 2011, 32(2), 151-167.
- Sasmito, A.P., Kurnia, J.C., Mujumdar, A.S. Numerical Evaluation of Laminar Heat Transfer Enhancement in Nanofluid Flow in Coiled Square Tubes, submitted to *Nanoscale Research Letters* 2011, under review.
- Sasmito, A.P., Kurnia, J.C. Mujumdar, A.S. Numerical evaluation of transport phenomena in a T-junction micro-reactor with coils of square cross-section tubes, submitted to *Industrial & Engineering Chemistry Research* 2011, under review.

- Ghaedamini, H., Salimpour, M.R., Mujumdar, A.S. The effect of svelteness on the bifurcation angles role in pressure drop and flow uniformity of tree-shaped microchannels. *Applied Thermal Engineering* 2011, Article in Press.
- Fernandes, F.A.N., Rodrigues, S., Law, C.L. and Mujumdar, A. S. Drying of exotic tropical fruits: A comprehensive review, *Food and Bioprocess Technologies* 2011, 4(2), 163-185.
- Gong, Z.-X., Stanovský, J., Mujumdar, A.S. Energy audit of a fiberboard drying production line using simprosys software.

## 2010

- Wang, R., Zhang, M., Mujumdar, A.S. Effect of osmotic dehydration on microwave freeze drying characteristics and quality of potato chips, *Drying Technology* 2010, 28(6), 798-806.
- Gong, Z., Gao, L., An, J., Zhang, M., Mujumdar, A.S., Sun, J. Effects of pre-drying and vacuum impregnation with nano-calcium carbonate solution on strawberry, carrot, corn and blueberry, *Drying Technology* 2010, 28(1), 36-41.
- Wu, G., Zhang, M., Mujumdar, A.S., Wang, R. Effect of calcium ion and microwave power on structural and qualitative changes in drying of apple slices. *Drying Technology* 2010, 28(4), 517-522.
- Duan, X., Zhang, M., Mujumdar, A.S., Wang, R. Trends in microwave-assisted freeze drying of foods, *Drying Technology* 2010, 28(4), 444-453.
- Yan, W.Q., Zhang, M., Huang, L.L., Tang, J., Mujumdar, A.S., Sun, J.C. Study on optimization of puffing characteristics of potato cubes by spouted bed drying enhanced with microwave, *Journal of the Science of Food and Agriculture* 2010, 90(8), 1300-1307.
- Cheng, Y.-L., Wong, R.-J., Lin, J.C.-T., Huang, C., Lee, D.-J. and Mujumdar, A.S. Water coagulation using electrostatic patch coagulation (EPC) mechanism, *Drying Technology* 2010, 28(7), 850-857.
- Duan, X., Zhang, M., Mujumdar, A.S. and Wang, S. Microwave freeze drying of sea cucumber (*Stichopus japonicus*), *Journal of Food Engineering* 2010, 96 (4), 491-497.
- Duan, X., Zhang, M., Mujumdar, A.S., Huang, L.L., Wang, H. A novel dielectric drying method of sea cucumber. *International Journal of Food Science and Technology* 2010, 45(12), 2538-2545.
- Ghasemi, N., Sohrabi, M., Khosravi, M., Mujumdar, A.S., Goodarzi, M. CFD simulation of solid-liquid flow in a two impinging streams cyclone reactor: Prediction of mean residence time and holdup of solid particles. *Chemical Engineering and Processing: Process Intensification* 2010, 49 (12), 1277-1283.
- Gong, Z., Gao, L., An, J., Zhang, M., Mujumdar, A.S., Sun, J. Effects of predrying and vacuum impregnation with Nano-calcium carbonate solution on strawberries, carrots, corn, and blueberries, *Drying Technology* 2010, 28 (1), 36-41.

- Gong, Z., Zhang, M., Bhandari, B., Mujumdar, A.S. and Jin-Cai, S. Rheological properties of cabbage pulp, *International Journal of Food Properties* 2010, 13 (5), 1066-1073.
- Gong, Z.-X., Mujumdar, A.S. Simulation of drying nonaqueous systems-an application of simprosys software, *Drying Technology* 2010, 28 (1), 111-115.
- Hsu, J.-P., Su, A., Mujumdar, A.S. and Lee, D.-J. Unified analysis of dewatering and drying of sludge cake, *Drying Technology* 2010, 28 (7), 877-880.
- Hsu, J.-P., Tao, T., Su, A., Mujumdar, A.S. and Lee, D.-J. Model for sludge cake drying accounting for developing cracks, *Drying Technology* 2010, 28(7), 922-926.
- Jiang, H., Zhang, M. and Mujumdar, A.S. Physico-chemical changes during different stages of MFD/FD banana chips, *Journal of Food Engineering* 2010, 101 (2), 140-145.
- Jiang, H., Zhang, M., Mujumdar, A.S. Microwave freeze-drying characteristics of banana crisps. *Drying Technology* 2010, 28 (12), 1377-1384.
- Law, C.L. and Mujumdar, A.S. Drying technology: Trends and applications in postharvest processing. *Food and Bioprocess Technologies* 2010, in press.
- Li, Z., Su, W., Wu, Z., Wang, R., Mujumdar, A.S. Investigation of flow behaviors and bubble characteristics of a pulse fluidized bed via CFD modeling, *Drying Technology* 2010, 28 (1), 78-93.
- Mujumdar, A.S., Huang, L.-X., Dong Chen, X. An overview of the recent advances in spray-drying, *Dairy Science and Technology* 2010, 90 (2-3), 211-224.
- Pang, S., Mujumdar, A.S. Drying of woody biomass for bioenergy: Drying technologies and optimization for an integrated bioenergy plant, *Drying Technology* 2010, 28 (5), 690-701.
- Peng, X., Yu, B., Qiu, S., Poh, H.J. and Mujumdar, A.S. Turbulent impinging jet heat transfer enhancement due to intermittent pulsation, *International Journal of Thermal Sciences* 2010, Available online.
- Sasmito, A.P., Lum, K.W., Birgersson, E. and Mujumdar, A.S. Computational study of forced air-convection in open-cathode polymer electrolyte fuel cell stacks, *Journal of Power Sources* 2010, 195 (17), 5550-5563.
- Wang, R., Zhang, M. and Mujumdar, A.S. Effects of vacuum and microwave freeze drying on microstructure and quality of potato slices, *Journal of Food Engineering* 2010, 101 (2), 131-139.
- Wang, R., Zhang, M., Mujumdar, A.S. Effect of food ingredient on microwave freeze drying of instant vegetable soup, *LWT - Food Science and Technology* 2010, Article in Press.
- Wang, R., Zhang, M., Mujumdar, A.S. Effect of osmotic dehydration on microwave freeze-drying characteristics and quality of potato chips, *Drying Technology* 2010, 28 (6), 798-806.
- Wang, X. Q., Xu, P., Mujumdar, A.S. and Yap, C. Flow and thermal characteristics of offset branching network, *International Journal of Thermal Sciences* 2010, 49(2), 272-280.
- Woo, M.W., Daud, W.R.W., Mujumdar, A.S., Tasirin, S.M., Talib, M.Z.M. The role of rheology characteristics in amorphous food particle-wall collisions in spray drying. *Powder Technology* 2010, 198, 251-257.

- Woo, M.W., Mujumdar, A.S. Effects of electric and magnetic field on freezing and possible relevance in freeze drying, *Drying Technology* 2010, 28 (4), 433-443.
- Wu, G.-C., Zhang, M., Mujumdar, A.S., Wang, R. Effect of calcium ion and microwave power on structural and quality changes in drying of apple slices, *Drying Technology* 2010, 28 (4), 517-522.
- Wu, Z.H., Hu, Y.J., Lee, D.J., Mujumdar, A.S. and Li, Z.Y. Dewatering and drying in mineral processing industry: Potential for innovation, *Drying Technology* 2010, 28(7), 834-842.
- Xu, P., Mujumdar, A.S., Poh, H.J. and Yu, B. Heat transfer under a pulsed slot turbulent impinging jet at large temperature differences, *Thermal Science* 2010, 14 (1), 271-281.
- Xu, P., Yu, B., Qiu, S., Poh, H.J. and Mujumdar, A.S. Turbulent impinging jet heat transfer enhancement due to intermittent pulsation, *International Journal of Thermal Sciences* 2010, in Press.
- Yan, W., Zhang, M., Huang, L.L., Tang, J., Mujumdar, A.S., Sun, J.-C. Study of the optimisation of puffing characteristics of potato cubes by spouted bed drying enhanced with microwave, *Journal of the Science of Food and Agriculture* 2010, 90(8), 1300-1307.
- Yan, W.-Q., Zhang, M., Huang, L.-L., Tang, J., Mujumdar, A.S. and Sun, J.-C. Studies on different combined microwave drying of carrot pieces, *International Journal of Food Science and Technology* 2010, 45 (10), 2141-2148.
- Yang, Z., Su, A., Mujumdar, A.S. and Lee, D.-J. Electroosmotic flows in sludge at dewatering, *Drying Technology* 2010, 28 (9), 1113-1117.
- Yu, G.-H., He, P.-J., Shao, L.-M., Lee, D.-J. and Mujumdar, A.S. Extracellular polymeric substances (EPS) and extracellular enzymes in aerobic granules, *Drying Technology* 2010, 28(7), 910-915.
- Zhang, C.H., Huang, L.X., Wang, C.P., Mujumdar, A.S. Experimental and numerical investigation of spray-drying parameters on the dried powder properties of ginkgo biloba seeds, *Drying Technology* 2010, 28 (3), 380-388.

## 2009

- Banooni, S., Hosseinalipour, S.M., Mujumdar, A.S., Taherkhani, P., Bahiraei, M. Baking of Flat Bread in an Impingement Oven: Modeling and Optimization, *Drying Technology* 2009, 27(1), 103-112.
- Chin, S.K., Law, C.L., Supramaniam, C.V., Cheng, P.G. and Mujumdar, A.S. Convective drying of *Ganoderma tsugae* Murrill and effect of temperature on basidiospores, *Drying Technology* 2009, 26 (12), 1524-1533
- Huang, L., Zhang, M.; Mujumdar, A.S.; Sun, D.F., Tan, G.W. and Tang, S. Studies on Decreasing Energy Consumption for a Freeze-Drying Process of Apple Slices, *Drying Technology* 2009, 27(9), 938 – 946.
- Huang, L.L., Zhang, M., Yan, W.Q., Mujumdar, A.S. and Sun, D.F. Effect of coating on post-drying of freeze-dried strawberry pieces, *Journal of Food Engineering* 2009, 92 (1), 107-111.
- Jangam, S.V., Mujumdar, A.S. and Thorat, B. N. Design of an Efficient Gas Distribution System for a Fluidized Bed Dryer, *Drying Technology* 2009, 27(11), 1217 – 1228.

- Kandasamy, R. and Mujumdar, A.S. Interface thermal characteristics of flip chip packages-A numerical study, *Applied Thermal Engineering* 2009, 29 (5-6), 822-829.
- Kurnia, J.C., Birgersson, E., Mujumdar, A.S. and Quah, L.C. Mathematical modeling of hydrogels for microfluidic flow control, *Advanced Material Research* 2009, 74, 33-36.
- Mahbub, F., Hawlader, M.N.A. and Mujumdar, A.S. Combined water and power plant (CWPP) — a novel desalination technology, *Desalination and Water Treatment* 2009, 5, 172-177.
- Muthusamy, K., Wu, Z.H. and Mujumdar, A.S. Low-Rank Coal Drying Technologies—Current Status and New Developments. *Drying Technology* 2009, 27(3), 403-415.
- Peng X., Mujumdar, A.S. and Yu, B. Drying-induced cracks in thin film fabricated from colloidal dispersions, *Drying Technology* 2009, 27 (5), 636-652.
- Peng Xu, Wu, Z., Mujumdar, A.S. and Yu, B. Innovative hydrocyclone inlet designs to reduce erosion-induced wear in mineral dewater processes, *Drying Technology* 2009, 27 (2), 201-211.
- Peng Xu, X.Q. Wang, A.S. Mujumdar, C. Yap and B.M. Yu, Thermal characteristics of tree-shaped microchannel nets with/without loops, *International Journal of Thermal Science* 2009, 48(11), 2139-2147.
- Piacentini, R.D. and Mujumdar, A.S. Climate Change and Drying of Agricultural Products, *Drying Technology* 2009, 27(5), 629 – 635.
- Song, X. J., Zhang, M., Mujumdar, A.S. and Fan, L. Drying characteristics and kinetics of vacuum microwave-dried potato slices, *Drying Technology* 2009, 27(9), 969-974.
- Wang, R., Zhang, M., Mujumdar, A.S. and Sun, J. Microwave Freeze-Drying Characteristics and Sensory Quality of Instant Vegetable Soup, *Drying Technology* 2009, 27(9), 962 - 968.
- Woo, M. W., Daud, W.R.W., Mujumdar, A.S., Zhonghua, W., Talib, M.Z.M. and Tasirin, S.M. Non-swirling steady and transient flow simulations in short-form spray dryers, *Chemical Product and Process Modeling* 2009, Vol. 4(1), Article 20.
- Woo, M.W., Daud, W.R.W., Mujumdar, A.S., Wu, Z.-H., Talib, M.Z.M. and Tasirin, S.M. CFD evaluation of droplet drying models in a spray dryer fitted with a rotary atomizer, *Drying Technology* 2009, 26 (10), 1180-1198.
- Xu, H.S., Zhang, M., Duan, X., Mujumdar, A.S. and Sun, J.C. Effect of power ultrasound pretreatment on edamame prior to freeze drying, *Drying Technology* 2009, 27(2), 186-193.
- Yun, L., Wang, B., Jing, D., Lv, X., Yu, C., Wang, G., Huang, L. and Mujumdar, A.S. Drying kinetics of magnesium hydroxide of different morphological micro nanostructures, *Drying Technology* 2009, 27(4), 523-528.

## 2008

- Banooni, S., Hosseinalipour, S.M., Mujumdar, A.S., Taheran, E. and Bahiraei, M. Impingement heat transfer effects on baking of flat bread, *Drying Technology* 2008, 26(7), 910-919.



- Banooni, S., Hosseinalipour, S.M., Mujumdar, A.S., Taheran, E., Bahiraei, M. and Taherkhani, P. Baking of flat bread in an impingement oven: An experimental study of heat transfer and quality aspects, *Drying Technology* 2008, 26(7), 902-909.
- Chen, H.H., Huang, T.C. Tsai, C.H. and Mujumdar, A.S. Development and performance analysis of a new solar energy-assisted photocatalytic dryer, *Drying Technology* 2008, 26(4), 503-507.
- Duan, X., Zhang, M., Li, X.L. and Mujumdar, A.S. Microwave freeze drying of sea cucumber coated with nanoscale silver, *Drying Technology* 2008, 26(4), 413-419.
- Duan, X., Zhang, M., Li, X.L. and Mujumdar, A.S. Ultrasonically enhanced osmotic pretreatment of sea cucumber prior to microwave freeze drying, *Drying Technology* 2008, 26(4), 420-426.
- Gong, Z., Min, Z., Mujumdar, A.S. and Sun, J. Spray drying and agglomeration of instant bayberry powder, *Drying Technology* 2008, 26(1), 116-121.
- Gong, Z.X. and Mujumdar, A.S. software for design and analysis of drying systems, *Drying Technology* 2008, 26(7), 887-894.
- Huang, L. and Mujumdar, A.S. The effect of rotary disk atomizer rpm on particle size distribution in a semi-industrial spray dryer, *Drying Technology* 2008, 26(11), 1319-1325.
- Huang, L., Zhang, M., Mujumdar, A.S., Zhang, C., Lu, D. and Sun, J. Studies on Controlling Surface Accumulation of Glucose on Dehydrated Cabbage. *Drying Technology* 2008, 26(7), 931-935.
- Huang, L., Zhou, R.J. and Mujumdar, A.S. Review on the latest development of spray drying, *Drying Technology & Equipment* 2008, 6(1) 3-8.
- Jangam, S.V., Joshi, V.S., Mujumdar, A.S. and Thorat, B.N. Studies on dehydration of sapota (*Achras zapota*), *Drying Technology* 2008, 26(3), 369-377.
- Kandasamy, R. and Mujumdar, A.S. Thermal analysis of a flip chip ceramic ball grid array (CBGA) package, *Microelectronica Reliability* 2008, 48(2) 261-273.
- Kandasamy, R., Xiangqi, W. and Mujumdar A.S., Transient cooling of electronics using phase change materials (PCM) – based heat sinks, *Applied Thermal Engineering* 2008, 28(8-9), 1047-1057.
- Law, C.L., Waje, S.S., Thorat, B.N. and Mujumdar, A.S. Advances and recent developments in thermal drying for bio-origin and agricultural products, *Stewart Postharvest Review* 2008, 4(1) 1-23.
- Lou, Z.Q., Yap C. and Mujumdar, A.S. A numerical study of a heat sink fin under a laminar impinging jet, *Journal of Electronic Packaging* 2008, 130(3), 0345011- 0345015.
- Min, Q., Duan, Y.Y., Peng, X.F., Mujumdar, A.S. Hsu, C. and Lee, D.J. Froth flotation of mineral particles: mechanism, *Drying Technology* 2008, 26(8), 985-995.
- Mujumdar, A.S. and Wu, Z.H. Thermal drying technologies-Cost effective innovation aided by mathematical modeling approach, *Drying Technology* 2008, 26(1), 145-153.
- Mujumdar, A.S. New dehydration technologies for dairy and food products, *Indian Dairyman* 2008, 60 (3).

- Patel, A.K., Waje, S.S., Throat, B.N. and Mujumdar, A.S. Tomographic diagnosis of gas maldistribution in gas-solid fluidized beds, *Powder Technology* 2008, 185 (3), 239-250.
- Pawar, S.B., Rama Kumar, P.S., Mujumdar, A.S. and Thorat, B.N. Infrared-convective drying of organic pigments, *Drying Technology* 2008, 26(3), 315-322.
- Rahman, S.M.A. and Mujumdar, A.S. A novel atmospheric freeze drying system using a vortex tube and multimode heat supply. *Int. J. of Postharvest Technology and Innovation* 2008, 1(3), 249-266.
- Rahman, S.M.A. and Mujumdar, A.S. A novel atmospheric freeze drying system in a vibro-fluidized bed dryer couple with adsorbent and multimode heat input, *Drying Technology* 2008, 26(3), 393-403.
- Rahman, S.M.A. and Mujumdar, A.S. Effect of combined radiant and conductive vacuum drying with application of vibration, *Journal of Food Engineering* 2008, 4(2) 1-16.
- Rahman, S.M.A. and Mujumdar, A.S. Sublimation of ice in a novel tmospheric freeze drying system using vortex tube and multimode heat input: Simulation and experiment, *Asia-pacific Journal of Chemical engineering* 2008, 3(4) 408-416.
- Sung, S. Ju, S.P., Hsu, C., Mujumdar, A.S. and Lee, D.J. Floc strength evaluation at alternative shearing with presence of natural organic matters, *Drying Technology* 2008, 26(8), 996-1001,
- Tao, T., Peng, X.F., Su, A., Lee, D.J. and Mujumdar, A.S. Modeling convective drying of wet cake, *Journal of The Chinese Institute of Chemical Engineers* 2008, 39(3) 287-290.
- Wang, X.Q. and Mujumdar, A.S. A review on nanofluids - part I: Theoretical and numerical investigation, *Brazilian Journal of Chemical Engineering* 2008, 25 (4), 613-630.
- Wang, X.Q. and Mujumdar, A.S. A review on nanofluids - part II: experiments and applications, *Brazilian Journal of Chemical Engineering* 2008, 25 (4), 631-648.
- Wang, X.Q., Yap, C. and Mujumdar, A.S. A parametric study of phase change material (PCM)-based heat sinks, *International Journal of Thermal Sciences* 2008, 47(8), 1055-1068.
- Wang, Z., Peng, X.F., Mujumdar, A.S., Su, A. and Lee, D.J. Evaporation of ethanol-water mixture drop on horizontal substrate, *Drying Technology* 2008, 26(6), 806-810.
- Woo, M.W., Daud, W.R.W., Mujumdar, A.S., Wu, Z.H., Talib, M.Z.M. and Tasirin, S.M. Evaluation of droplet drying models in a CFD spray drying environment, *Drying Technology* 2008, 26(10), 1180-1198.
- Woo, M.W., Daud, W.R.W., Mujumdar, A.S., Wu, Z.H., Talib, M.Z.M. and Tasirin, S.M. Comparative study of drying models for cfd simulations of spray dryer, *Chemical Engineering Research and Design* 2008, 86(9), 1038-1048.
- Wu, D., Peng, X.F., Su, A., Mujumdar, A.S., Hsu, C. and Lee, D.J. Heat and mass transfer in unsaturated porous cake with heated walls, *Drying Technology* 2008, 26(8), 1079-1085.

- Wu, Z. and Mujumdar, A.S. Pulse combustion characteristics of various gaseous fuels, *Energy & Fuels* 2008, 22(2) 915-924.
- Xu, P., Mujumdar, A.S. and Yu, B. Fractal theory on drying: A review, *Drying Technology* 2008, 26(6), 640-650.
- Yang, Z., Lee, D.J., Mujumdar, D.J., Peng, X.F., Su, A. and Hsu, C. Probing heterogeneous structure of aggregates, *Drying Technology* 2008, 26(8), 1018-1023.
- Zhonghua, W. and Mujumdar, A.S. CFD modeling of the gas-particle flow behavior in spouted beds, *Powder Technology* 2008, 183 (2), 260-272.
- Zielińska, B.M., Mujumdar, A.S. and Markowski, M. Heat and mass transfer during drying of a bed of shrinking particles – Simulation for carrot cubes dried in a spout-fluidized-bed drier, *International Journal of Heat and Mass Transfer* 2008, 51 (19-20), 4704-4716.

## 2007

- Wang X. and Mujumdar, A.S. Heat transfer characteristics of nano-fluids: A Review, accepted for publication in *International Journal of Thermal Sciences* 2007, 46(1), 1-19.
- Wang, W., Guohua, C. and Mujumdar, A.S. Physical interpretation of solids drying: An overview of mathematical modeling research, *Drying Technology* 2007, 25(4-6), 659-668.
- Yang, G.Y., Shi, Y.C., Liu, X.D. and Mujumdar, A.S. TG-DTG analysis of chemically bound moisture removal of  $AlF_3 \cdot 3H_2O$ , *Drying Technology* 2007, 25(4-6), 675-580.
- Lim, L.C., Waje, S.S., Thorat, B.N. and Mujumdar, A.S. Innovation and recent advancement in drying operation for postharvest processes. *Stalwart Postharvest Review* 2007, 4(1): 1-23.
- Wang, X.Q., Mujumdar, A.S. and Yap, C. Effect of bifurcation angle in tree-shaped microchannel networks, *Journal of Applied Physics* 2007, 102, 073530.
- Wang, X.Q., Mujumdar, A.S. and Yap, C. Effect of orientation for phase change material (PCM)-based heat sinks for transient thermal management of electric components, *International Communications of Heat and Mass Transfer* 2007, 34 (7), 801-808.
- Kandasamy, R., Wang, X.Q. and Mujumdar, A.S. Application of phase change materials in thermal management of electronics, *Applied Thermal Engineering* 2007, 27(17-18), 2822-2832.
- Huang, L. and Mujumdar, A.S. Simulation of an industrial spray dryer and prediction of off-design performance, *Drying Technology* 2007, 25(4-6), 703-714.
- Rahman, S.M.A., Islam M.R and Mujumdar, A.S. A study of coupled heat and mass transfer through a composite food product during convective drying. *Drying Technology* 2007, 25, 1359-1368.
- Rahman, S.M.A and Mujumdar, A.S. Effect of osmotic treatment with concentrated sugar and salt solutions on kinetics and color in vacuum contact drying. *Journal of food process and preservation* 2007, 31, 671-687.

- Waje S.S., Thorat, B.N. and Mujumdar, A.S. Hydrodynamic characteristics of a pilot-scale screw conveyor dryer, *Drying Technology* **2007**, 25(4), 609-616.
- Waje S.S., Patel, A.K., Thorat, B.N. and Mujumdar, A.S. Study of residence time distribution in a pilot-Scale screw conveyor dryer, *Drying Technology* **2007**, 25(1), 249-259.
- Waje S.S., Thorat, B.N. and Mujumdar, A.S. Screw conveyor dryer: Process and equipment design, *Drying Technology* **2007**, 25 (1), 241-247.
- Wang, S.J. and Mujumdar, A.S. Three dimensional analysis of flow and mixing characteristics of a novel in-line jet mixer, *Ind. Eng. Chem. Res.* **2007**, 46(2), 632-642.
- Suvarnakuta, P., Devahastin, S., Mujumdar, A.S. A mathematical model for low-pressure superheated steam drying of a biomaterial, *Chemical Engineering and Processing* **2007**, 46(7), 675-683.
- Wu, Z. and Mujumdar, A.S. Simulation of the hydrodynamics and drying in a spouted bed dryer, *Drying Technology* **2007**, 25(1), 1-16.
- Hu, Q.G., Zhang M., Mujumdar, A.S., Xiao, G.N. and Sun, J. Performance evaluation of vacuum microwave drying of edamame in deep-bed drying, *Drying Technology* **2007**, 25(4), 731 – 736.
- Cao, H., Zhang M., Mujumdar A. S., Xiao, G.N. and Sun, J. Study on reduction of water activity and storage stability for dehydrated Brassica parachineusis with intermediate moisture, *Drying Technology* **2007**, 25(4), 669-674.
- Fan L.P., Zhang, M. and Mujumdar A.S. Storage stability of carrot chips, *Drying Technology* **2007**, 25(9), 1537-1543.
- Cao, H., Zhang M., Mujumdar A. S., Duan, X., Zhang, C. and Sun, J. Effect of sugar pretreatment on quality of dehydrated cabbage, *Drying Technology* **2007**, 25(9), 1545-1549.
- Duan, X., Zhang, M. and Mujumdar A.S. Studies on the microwave freeze-drying technique and sterilization characteristic of cabbage, *Drying Technology* **2007**, 25(10), 1725-1731.
- Islam, M.R., Thakur, K.S. and Mujumdar, A.S., A diffusion model for a drum dryer subjected to conduction, convection and radiant heat input, *Drying Technology* **2007**, 25(6), 1043-1053.
- Zhang, Y., Peng, X. F., Su, A., Mujumdar, A.S. and Lee, D. J. Drying for Porous Medium Containing Concentrations Sodium Chloride Solution, *Drying Technology* **2007**, 25(1-3), 171-175.
- Song, X.J., Zhang, M. and Mujumdar, A.S. Optimization of vacuum microwave predrying and vacuum frying conditions to produce fried potato chips, *Drying Technology* **2007**, 25 (12), 2027-2034.
- Song, X.J., Zhang, M. and Mujumdar, A.S. Effect of vacuum-microwave predrying on quality of vacuum-fried potato chips, *Drying Technology* **2007**, 25(12), 2021-2026.
- Duan, X., Zhang, M. and Mujumdar, A.S. Study on a combination drying technique of sea cucumber, *Drying Technology* **2007**, 25(12), 2011-2019.

- Gong, Z.X. and Mujumdar, A.S. Review of R&D in drying of refractories, *Drying Technology* **2007**, 25(12), 1917-1925.
- Basu, S., Shivhare, U.S. and Mujumdar, A.S. Moisture adsorption isotherms and glass transition temperature of xanthan gum, *Drying Technology* **2007**, 25(9), 1577-1582.
- Wang, S.J. and Mujumdar, A.S. Flow and mixing characteristics of multiple and multi-set opposing jets, *Chemical Engineering and Processing: Process Intensification* **2007**, 46 (8), 703-712.
- Konstantopoulos, D.K., Maroulis, V.Z., Karoglou, M., Moropoulou, A. and Mujumdar, A.S. Hygroscope: A moisture transfer a simulator for buildings, *Drying Technology* **2007**, 25(6), 1119-1125.
- Wang, B., Zhang, W., Yu, C., Wang, G., Huang, L. and Mujumdar, A.S. Influence of drying processes on agglomeration and grain diameters of magnesium oxide nanoparticles, *Drying Technology* **2007**, 25 (4), 715-721.
- Mujumdar, A.S. and Huang, L.X. Global R&D needs in drying, *Drying Technology* **2007**, 25 (4), 647-658.
- Xian, H., Liu, D., Shang, F., Yang, Y., Du, X., Mujumdar, A.S. and Huang, L. Study on heat transfer enhancement of oscillating-flow heat pipe for drying, *Drying Technology* **2007**, 25(4), 723-729.
- Ogura, H., Yasuda, S. , Otsubo, A. and Mujumdar, A.S. Continuous operation of a chemical heat pump, *Asia-Pacific Journal of Chemical Engineering* **2007**, 2 (2), 118-123.
- Huang, L.X. and Mujumdar, A.S. A computational fluid dynamic study of a low-humidity co-current spray dryer, *Asia-Pacific Journal of Chemical Engineering* **2007**, 2(1), 12-19.
- Mujumdar, A.S. An overview of innovation in industrial drying: Current status and R&D needs, *Transport in Porous Media* **2007**, 66(1-2), 3-18.

## 2006

- Wu, Z.H. and Mujumdar, A.S. R&D needs and opportunities in pulse combustion and pulse combustion drying, *Drying Technology* **2006**, 24, 1521-1523.
- Wu, Z.H. and Mujumdar, A.S. Pulse combustion dryers, *Chemical Industry Digest* **May 2006**, 58-65
- Wu, Z.H. and Mujumdar, A.S. A parametric study of spray drying of a solution in a pulsating high temperature turbulent flow , *Drying technology* **2006**, 24(6), 751-761.
- Devahastin, S. and Mujumdar, A.S. Recent advances in drying technologies for carrot and sweet potato, *Acta Horticulture* **2006**, 703, 89-96.
- Huang, L., Kumar, K. and Mujumdar, A.S. A comparative study of a spray dryer with rotary disc atomizer and pressure nozzle using computational fluid dynamic simulations, *Chemical Engineering and Processing* **2006**, 45(6), 461-470.
- Cao, H., Min, Z., Mujumdar, A.S., Du, W.-H. and Sun, J.-C. Optimization of osmotic dehydration of kiwifruit, *Drying Technology* **2006**, 24(1), 89-94.

- Wanjari, A.N., Thorat, B.N., Baker, C. G. J. and Mujumdar, A.S. Design and modeling of plug flow fluid bed dryers, *Drying Technology* **2006**, 24(1), 147-158.
- Birchal, V.S., Huang, L., Mujumdar, A.S. and Passos, M.L. Spray dryers: Modeling and Simulation, *Drying Technology* **2006**, 24(3), 359-372.
- Mujumdar, A.S. and Law, C.L. Filter dryers in process industries, *Chemical Industry Digest* **2006**, XIX(4), 54-62.
- Waje, S.S., Thorat, B.N. and Mujumdar, A.S. An experimental study of the thermal performance of a screw conveyor dryer, *Drying Technology* **2006**, 24(3), 303-314.
- Fan, L.P., Zhang, Min and Mujumdar, A.S. Effect of various pretreatment methods on the quality of vacuum-fried carrot chips, *Drying Technology* **2006**, 24(11), 1481-1486.
- Wang, S.J., Devahastin, S. and Mujumdar, A.S. Effects of temperature difference on flow and mixing characteristics of laminar confined opposing streams, *Applied Thermal Engineering* **2006**, 26, 519-529.
- Zhang, M., Tang, J., Mujumdar, A.S. and Wang, S. Trends in microwave-related combination drying of fruits and vegetables, *Trends in Food Science & Technology Journal* **2006**, 17, 524-534.
- Yong, C.K., Islam, Md. SR. and Mujumdar, A.S. Mechanical means of enhancing drying rates: effect on drying kinetics and quality, *Drying Technology* **2006**, 24(3), 397-404.
- Hu, Q. G., Zhang, M., Mujumdar, A.S. Wei-hua, D. and Sun, J.C. Effects of different drying methods on the quality changes of granular Edamames, *Drying Technology* **2006**, 24(9), 1025-1032.
- Basu, S., Shivhare, U.S. and Mujumdar, A.S. Models for sorption isotherms for foods: A Review, *Drying Technology* **2006**, 24(8), 917-930.
- Xu, Y., Zhang, M., Mujumdar, A.S., Xu, D. and Sun, J.C. A two-stage vacuum freeze and convective air -drying technique for strawberries, *Drying Technology* **2006**, 24, 1019-1023.
- Hu, Q. G., Zhang, M., Mujumdar, A.S. Wei-hua, D. and Sun, J.C. Drying of Edamames by hot air and vacuum microwave combination, *Journal of Food Engineering* **2006**, 77(4), 977-982.
- Wang, X.Q., Mujumdar, A.S. and Yap, C. Thermal characteristics of tree-shaped microchannel nets for cooling of a rectangular heat sink, *International Journal of Thermal Sciences* **2006**, 45 (11), 1103-1112.
- Lee, D.J., Lai, J.Y. and Mujumdar, A.S. Moisture Distribution and Dewatering Efficiency for Wet Materials, *Drying Technology* **2006**, 24(10), 1201-1208.
- Huang, L. and Mujumdar, A.S. Numerical study of two-stage horizontal spray dryers using computational fluid dynamics, *Drying Technology* **2006**, 24(6), 727-733.
- Wang, S.J., Devahastin, S. and Mujumdar, A.S. Effect of temperature difference on flow and mixing characteristics of laminar confined opposing jets, *Applied Thermal Engineering* **2006**, 26(5-6), 519-529.
- Wang, W.Q., Mujumdar, A.S. and Yap, C. Numerical analysis of blockage and optimization of heat transfer performance of fractal-like microchannel net, *Journal of Electronic Packaging, Transactions of the ASME* **2006**, 128(1), 38-45.

## 2005

- Poh, H.J., Kumar, K. and Mujumdar, A.S. Heat transfer from a pulsed laminar impinging jet, *International Communication of Heat and Mass Transfer* **2005**, 32(10), 1317-1324.
- Wang, S.J. and Mujumdar, A.S. A numerical study of flow and mixing characteristics of three-dimensional confined turbulent opposing jets: Unequal jets, *Chemical Engineering and Processing* **2005**, 44, 1068-1074.
- Lou, Z.Q., Mujumdar, A.S. and Yap, C. Effects of geometric parameters on confined impinging jet heat transfer, *Applied Thermal Engineering* **2005**, 25(17-18), 2687-2697.
- Sun, L., Islam, R.M., and Mujumdar, A.S. A diffusion model for drying of heat sensitive solid under multiple heat input modes, *Bioresource Technology* **2005**, 96(14), 1551-1560.
- Sablani, S.S., Kacimov, A., Perret, J. and Mujumdar, A.S. Non-iterative estimation of the heat transfer coefficients using artificial neural network models, *Int. Journal of Heat and Mass Transfer* **2005**, 48(3), 665-679.
- Wang, X.-Q., Yap, C.R. and Mujumdar, A.S. Effects of two-dimensional roughness in flow in microchannels, *Journal of Electronic Packaging Transactions of the ASME* **2005**, 127(3), 357-361.
- Suvarnakuta, P., Devahastin, S., Soponronnarit, S. and Mujumdar, A.S. Drying kinetics and inversion temperature in a low-pressure superheated steam drying system, *Industrial & Engineering Chemistry Research* **2005**, 44(6), 1934-1941.
- Fan, L.-P., Zhang, M. and Mujumdar, A.S. Vacuum frying of carrot chips, *Drying Technology* **2005**, 23(3), 645-656.
- Birchal, V.S., Passos, L.M., Wildhagen, G.R.S. and Mujumdar, A.S. Effect of spray dryer operating variables on the whole milk powder quality, *Drying Technology* **2005**, 23(3), 611-636.
- Devahastin, S. and Mujumdar, A.S. Drying kinetics and beta-carotene degradation in carrot undergoing different drying processes, *Journal of Food Science* **2005**, 70(8), S520-S526.
- Wang, X-Q., Mujumdar, A.S. and Yap, C. Thermal characteristics of fractal-like microchannel nets in a rectangular heat sink, *ASME Journal, Electronic Packaging* **2005**, 128, 38-45.
- Huang, L. and Mujumdar, A.S. Development of a new innovative conceptual design for horizontal spray dryer via mathematical modeling, *Drying Technology* **2005**, 23(6), 1169-1187.
- Birchal, V.S., Passos, L.M., Wildhagen, G.R.S. and Mujumdar, A.S. Effect of spray-dryer operating variables on the whole milk powder quality, *Drying Technology* **2005**, 23(3), 611-636.
- Fan, L.-P., Zhang, M. and Mujumdar, A.S. Vacuum frying of carrot chips, *Drying Technology* **2005**, 23(3), 645-656.
- Wang, S.J., Devahastin, S. and Mujumdar, A.S. A numerical investigation of approaches to improve mixing under laminar confined impinging streams, *Applied Thermal Engineering* **2005**, 25, 253-269.

- Wang, S.J., and Mujumdar, A.S. A comparative study of five low Reynolds number  $k-\varepsilon$  models for confined impinging jet streams, *Applied Thermal Engineering* **2005**, 25, 31-44.
- Li, Hailong, Elias, E. and Mujumdar, A.S. Theoretical simulation of explosive boiling, to appear in *International Communications in Heat and Mass Transfer* **2005**, 32(5), 612-619.
- Xu, Y., Zhang, M., Tu, D., Sun, J., Zhou, L. and Mujumdar, A.S. A two-stage convective air and vacuum freeze-drying technique for bamboo shoots, *Int. Journal of Food Science and Technology* **2005**, 40(6), 589-595.

## 2004

- Goel, M., Mujumdar, A.S. and Ray, M.B. Sonochemical decomposition of volatile and non-volatile organic compounds – A comparative study, *Water Research* **2004**, 38(19), 4247-4261.
- Huang, L.X., Kumar, K. and Mujumdar, A.S. Simulation of spray evaporation using pressure and ultrasonic atomizer – A comparative analysis, *Russia TSTU Trans (English version)* **2004**, 10 (1A), 83-100.
- Huang, L.X., Kumar, K. and Mujumdar, A.S. Spray evaporation of different liquids in a drying chamber – effect on flow, heat and mass transfer performance, *China Journal of Chemical Engineering (English Version)* **2004**, 10, 83-89.
- Wang, B.H., Zhang, W.B., Zheng, W., Mujumdar, A.S. and Huang, L.X. Progress in drying technology for nanomaterials, *Drying Technology* **2004**, 23(1), 1-18.
- Wang, S. and Mujumdar, A.S. A comparative study of five low Reynolds number  $k-\varepsilon$  turbulence models for impingement heat transfer, *Applied Thermal Engineering* **2004**, 25(1), 31-44.
- Zhao, W., Kumar, K. and Mujumdar, A.S. Flow and heat transfer under confined noncircular turbulent impinging jets, *Drying Technology* **2004**, 22(9), 2027-2049.
- Xu Y., Zhang, M., Mujumdar, A.S., Zhou, L.-Q. and Sun, J.-C. Studies on hot air and microwave vacuum drying of wild cabbage, *Drying Technology* **2004**, 22(9), 2201-2209.
- Devahastin, S., Suvarnakuta, P., Soponsonnarit, S. And Mujumdar, A.S. A comparative study of low-pressure superheated steam and vacuum drying of heat-sensitive materials, *Drying Technology* **2004**, 22(8), 1845-1867.
- Ranjan, R., Irudayaraj, J., Reddy, J.N. and Mujumdar, A.S. Finite element simulation and validation of stepwise drying of banana, *Numerical Heat Transfer- Part A* **2004**, 45(10), 997-1001.
- Mujumdar, A.S. Research and Developments in Drying: Recent Trends and Future Prospects, *Drying Technology* **2004**, 22(1-2), 1-26.
- Ogura, H., Hamaguchi, N. Kage, H. And Mujumdar, A.S. Energy and cost estimation: application of chemical heat pump dryer to industrial ceramic drying, *Drying Technology* **2004**, 22(1-2), 307-323.



- Huang, L., Kumar, K. and Mujumdar, A.S. Simulation of a spray dryer fitted with a rotary disk atomizer using a three-dimensional computational fluid dynamic model, *Drying Technology* **2004**, 22(10), 1489-1516.
- Zhao, L. J., Pan, Y. K., Li, J. G., Chen, G.H. and Mujumdar, A.S. Revolving flow fluidized bed dryer of inert particles, *Drying Technology* **2004**, 22(1-2), 363-376.
- Yangang, X., Z. Min and Mujumdar, A.S. Studies on hot air and microwave vacuum drying of wild cabbage, *Drying Technology* **2004**, 22(9), 2201-2210.
- Markowski, A.S. and Mujumdar, A.S. Drying risk assessment strategies, *Drying Technology* **2004**, 22(1-2), 495-412.
- Hee, J.P., Kumar, K., Hock, S.C. and Mujumdar, A.S. Heat transfer from a laminar impinging jet of a power law fluid, *International Communications in Heat and Mass Transfer* **2004**, 31(2), 241-249.
- Shi, Y.L., Mujumdar, A.S. and Ray, M.B. Effect of large temperature difference on impingement heat transfer under a round turbulent jet, *International Communications in Heat and Mass Transfer* **2004**, 31(2), 251-260.

## 2003

- Yuling, S., Ray, M.B. and Mujumdar, A.S. A parametric study of heat transfer in turbulent gas-solid flow in multiple impinging jets, *Industrial & Engineering Chemistry Research* **2003**, 42(24), 6223-6231.
- Huang, L.X., Kumar, K. and Mujumdar, A.S. A parametric study of the gas flow patterns and drying performance of co-current spray dryer: Results of a computational fluid dynamics study, *Drying Technology* **2003**, 21(6), 957-978.
- Huang, L.X. and Mujumdar, A.S. Classification and selection of spray dryers, *Chemical Industry Digest (India)* **2003**, 7-8, 75-84.
- Huang, L.X. and Mujumdar, A.S. Design of spray dryers, *Chemical Industry Digest (India)* **2003**, 11-12, 95-102.
- Shi Yuling, Ray, M.B. and Mujumdar, A.S. Effects of Prandtl number on impinging jet heat transfer under a semi-confined laminar slot jet, *International Communications in Heat and Mass Transfer* **2003**, 30(4), 455-464.
- Chua, K.J., Mujumdar, A.S. and Chou, S.K. Intermittent drying of bio-products – An overview, *Bioresource Technology* **2003**, 90(3), 285-295.
- Li., Jingtang, Mason, D. J. and Mujumdar, A.S. A numerical study of the heat transfer mechanisms in gas-solids flows in pipes using a coupled CFD and DEM model, *Drying Technology* **2003**, 21(9), 1839-1867.
- Li, J., Campbell, G.M., and Mujumdar, A.S. Discrete modeling and suggested measurement of heat transfer in gas-solids flows, *Drying Technology* **2003**, 21(6), 979-994.
- Islam, M.R., Ho, J.C. and Mujumdar, A.S. Convective drying with time-varying heat input: Simulation results, *Drying Technology* **2003**, 21(7), 1359-1382.
- Jia, L.W., Islam, M.R. and Mujumdar, A.S. A simulation study on convection and microwave drying of different food products, *Drying Technology* **2003**, 21(8), 1551-1576.

- Huang, Lixin, Kumar, K. and Mujumdar, A.S., Use of Computational fluid dynamics to evaluate alternative spray chamber configurations, *Drying Technology* **2003**, 21(3), 385-412.
- Yuling, S., Mujumdar, A.S. and Ray, M.B. Numerical study on the effect of cross-flow on turbulent flow and heat transfer characteristics under normal and oblique semi-confined impinging slot jets, *Drying Technology* **2003**, 21(10), 1909-1923.
- Lixin, H., Kumar, K. and Mujumdar, A.S. Numerical simulation of spray evaporation of organic liquids, *Drying Technology* **2003**, 21(8).
- Islam, Raisul Md., Ho, J.C. and Mujumdar, A.S. Simulation of liquid diffusion-controlled drying of shrinking thin slabs subjected to multiple heat sources, *Drying Technology* **2003**, 21(3), 413-438.
- Raisul Md. I. and Mujumdar, A.S. Role of product shrinkage in drying rate predictions using a liquid diffusion model, *International Communications in Heat and Mass transfer* **2003**, 30(3), 391-400.
- Dedic, A.D., Mujumdar, A.S. and Voronjec, D.K. A three dimensional model for heat and mass transfer in convective wood drying, *Drying Technology* **2003**, 21(1), 1-16.
- Ogura, H., Ishida, H., Kage, H. and Mujumdar, A.S. Enhancement of energy efficiency of a chemical heat pump-assisted convective dryer, *Drying Technology* **2003**, 21(2), 279-292.
- Islam, M.R., Sablani, S.S. and Mujumdar, A.S. An artificial neural network model for prediction of drying rates, *Drying Technology* **2003**, 21(9), 1867-1885.
- Perera, C.O, Jasinghe, V.J., Ng, F.L. and Mujumdar, A.S. The effect of moisture content on the conversion of ergosterol to vitamin D in shitake mushrooms, *Drying Technology* **2003**, 21(6), 1091-1099.
- Markowski, A., and Mujumdar, A.S. Drying risk assessment strategies, *Drying Technology* **2003**, 21(7-8), 2003.
- Chua, K.J., Chou, S.K., Mujumdar, A.S., Ho, J.C. and Hon, C. K. Radiant-Convective drying of osmotically treated agro-products: effect on drying kinetics and product quality, *Food Control* **2003**.
- Huang, Lixin, Kumar, K. and Mujumdar, A.S. A parametric study of the gas flow patterns and drying performance of co-current spray dryer: Results of a computational fluid dynamic study, *Drying Technology* **2003**, 21(6), 957-978.

## **2002**

- Mujumdar, A.S. New Developments in Industrial Drying and Future Trends, *Chemical Digest (India)* **2002**, 7-8, 52-61.
- Shi, Y.-L., Ray, M.B. and Mujumdar, A.S. A Computational Study of Impingement Heat Transfer under a Turbulent Slot Jet, *Industrial and Engineering Chemistry Research* **2002**, 41, 4643-4651.
- Shi, YL.; Ray, M.B. and Mujumdar, A.S. Effect of Large Temperature Differences on Local Nusselt Number Under a Turbulent Slot Impinging Jet, *Drying Tech.-An International Journal* **2002**, 20(9), 1803-1825.

- Shi, YL.; Ray, M.B. and Mujumdar, A.S. Effect of Prandtl Number on Impinging Jet Heat Transfer Under a Semi-Confined Turbulent Slot Jet, *International Communications in Heat and Mass Transfer* **2002**, 29(7), 929-938.
- Ogura, H., Yamamoto, T., Kage, H., Matsuno, Y. and Mujumdar, A.S. Effects of heat exchange conditions on hot air production by a chemical heat pump dryer using  $\text{CaO}/\text{Ca}(\text{OH})_2$  reaction, *Chemical Engineering Journal* **2002**, 86(1-2), 3-10.
- Mujumdar, A.S. Drying Research- Current State and Future Trends, *Developments in Chemical Engineering and Mineral Processing* **2002**, 10(3/4), 225-246.
- Chen, G. and Mujumdar, A.S. Application of electrical fields in dewatering and drying, *Developments in Chemical Engineering and Mineral Processing* **2002**, 10(3/4), 429-442.
- Sanga, E.M.C., Mujumdar, A.S. and Raghavan, G.S.V. Simulation of convection-microwave drying for a shrinking material. *Chemical Engineering and Processing* **2002**, 41(6), 487-499.
- Wang, W., Thorat, B. N., Chen, G. and Mujumdar, A.S. Fluidized-bed drying of heat sensitive porous material with microwave heating, Accepted for publication in *Drying Technology* **2002**, 20(9), 1855-1868.
- Chen, G., Yue, P.-L. and Mujumdar, A.S. Sludge Dewatering and Drying, accepted for publication, *Drying Technology* **2002**, 20(4-5), 883-916.
- Mujumdar, A.S. Drying Research – current status and future trends, accepted for publication, *Research Trends in Heat and Mass Transfer*, Trivandrum, India, **2002**.
- Elustondo, D.M., Mujumdar, A.S. and Urbicain, M.J. Optimum operating conditions in drying foodstuffs with superheated steam, *Drying Technology* **2002**, 20(3), 381-402.
- Nishimura, A., Matsuda, H., Hasatani, M. and Mujumdar, A.S. Heat Transfer Characteristics in a Pulsated Fluidized Bed in Relation to Bubble Characteristics. Accepted for publication in *Heat Transfer- Asian Research* **2002**, 31(4), 307-319.
- Uddin, M.S., Hawlader, M.N.A., Ding, L. and Mujumdar, A.S. Degradation of Ascorbic acid in dried guava during storage, *Journal of Food Engineering* **2002**, 1, 21-26.

## **2001**

- Devahastin, S. and Mujumdar, A.S. A study of turbulent mixing of confined impinging streams using a new composite turbulence model, *Industrial & Engineering Research* **2001**, 40(22), 4998-5004.
- Devahastin, S. and Mujumdar, A.S. A numerical study of flow and mixing characteristics of laminar confined impinging streams, *Chemical Engineering Journal* **2001**, 85(2&3), 215-223.
- Devahastin, S. and Mujumdar, A.S. A numerical study of mixing in a novel impinging stream in-line mixer, *Chemical Engineering and Processing* **2001**, 40(5), 459-470.

- Chen, G., Wang, W. and Mujumdar, A.S. Theoretical study of microwave heating patterns on batch fluidized bed drying of porous material, *Chemical Engineering Science* **2001**, 56, 6823-6835.
- Zhao, W., Mujumdar, A.S. and Ray, M. Collection efficiencies of various designs of the post-cyclone, *Canadian Journal of Chemical Engineering* **2001**, 79, 708-716.
- Ho, J.C., Chou, S.K., Chua, K.J., Mujumdar, A.S. and Hawlader, M.N.A. Analytical study of cyclic temperature drying: Effect on drying kinetics and product quality, *Journal of Food Engineering* **2001**, 51, 65-75.
- Ho, J.C., Chou, S.K., Chua, K.J., Mujumdar, A.S. and Hawlader, M.N.A. Optimization framework for drying heat-sensitive products, *Applied Thermal Engineering* **2001**, 21, 1779-1798.
- Chou, S.K., Chua, K.J., Mujumdar, A.S., Tan, M. and Tan, S.L. Study on the osmotic pre-treatment and infrared radiation on drying kinetics and colour changes during drying of agricultural products, *ASEAN Journal on Science and Technology for Development* **2001**, 18(1), 11-23.
- Hawlader, M.N.A., Chou, S.K., Chua, K.J., Ho, J.C. and Mujumdar, A.S. On the steady state modeling of a two-stage evaporator system, *International Journal of Energy Research* **2001**, 25, 859-880.
- Chua, K.J., Mujumdar, A.S., Hawlader, M.N.A., Chou, S.K. and Ho, J.C. Batch drying of banana pieces – effect of stepwise change in drying air temperature on drying kinetics and product colour, *Food Research International* **2001**, 34, 721-731.
- Jumah, R.Y. and Mujumdar, A.S. Natural convection heat and mass transfer from a vertical flat plate with variable wall temperature and concentration to power-law fluids with yield stress in a porous medium, *Chemical Engineering Communications* **2001**, 185, 165-182.
- Devahastin, S. and Mujumdar, A.S. Some hydrodynamic and mixing characteristics of a pulsed spouted bed dryer, *Powder Technology* **2001**, 117, 189-197.
- Sanga, E.C., Mujumdar, A.S. and Raghavan, G.S.V. Principles and applications of microwave drying –a review, *Research Trends, Trivandrum India*, 2001.
- Tan, M., Chua, K.J., Mujumdar, A.S. and Chou, S.K. Osmotic dehydration of potato and pineapple-Effect of intermittent infrared radiation and continuous convection in a heat pump dryer, *Drying Technology* **2001**, 19(9), 2193-2208.
- Rostami, A.A., Mujumdar, A.S. and Saniei, N. Liquid flow and heat transfer in micro-channels: A review, *International Journal of Heat and Technology* **2001**, 18, 59-68.

## 2000

- Nishimura, A., Deguchi, S., Matsuda, H., Hasatani, M. and Mujumdar, A.S. Heat transfer characteristics of a pulsated fluidized bed in relation to bubble characteristics, *Kagaku Kogaku Ronbunshu* **2000**, 26, 830-836.
- Chua, K.J., Chou, S.K., Ho, J.C., Mujumdar, A.S. and Hawlader, M.N.A. Cyclic air temperature drying of guava pieces: Effects on moisture and ascorbic acid contents, *Transactions of the Institution of Chemical Engineers, Part C* **2000**, 78, 72-78.

- Chou, S.K., Chua, K.J., Hawlader, M.N.A., Mujumdar, A.S. and Ho, J.C. On the intermittent drying of an agricultural product, Transactions of the Institution of Chemical Engineers **2000**, 78, Part C, 193-203.
- Nishimura, A., Deguchi, S., Matsuda, H., Hasatani, M. and Mujumdar, A.S. Bubble characteristics of a pulsed fluidized bed under intermittent fluidization, Kagaku Kogaku Ronbunshu **2000**, 26, 88-93.
- Passos, M.L. and Mujumdar, A.S. Effect of cohesive forces on fluidized and spouted beds of wet particles, Powder Technology **2000**, 110, 222-238.
- Jumah, R.Y. and Mujumdar, A.S. Free convection heat and mass transfer of non-Newtonian power law fluids with yield stress from a vertical flat plate in saturated porous media, International Communications in Heat and Mass Transfer **2000**, 27, 485-494.
- Mujumdar, A.S., Hosseinalipour, S.M. and Devahastin, S.A. two-dimensional superheated steam impinging stream dryer: A computational model, Bulletin of the Polish Academy of Sciences: Technical Sciences **2000**, 48, 287-299.
- Pan, Y.K., Li, Z.Y., Mujumdar, A.S. and Kudra, T. Analogy of heat and mass transfer for drying hygroscopic particles in vibrated fluid beds, Bulletin of the Polish Academy of Sciences: Technical Sciences **2000**, 48, 463-474.
- Devahastin, S. and Mujumdar, A.S. Evaluation of some transport and thermodynamic properties of superheated steam: Effects of steam temperature and pressure, Drying Technology **2000**, 18, 1055-1071.
- Mujumdar, A.S. and Wu, J. Analysis of recent patent literature on drying and dryers, Drying Technology **2000**, 18, 1147-1156.
- Ogura, H. and Mujumdar, A.S. Proposal for a novel chemical heat pump dryer, Drying Technology **2000**, 18, 1033-1053.
- Chua, K.J., Mujumdar, A.S., Chou, S.K., Hawlader, M.N.A. and Ho, J.C. Convective drying of banana, guava and potato pieces: Effect of cyclical variations of air temperature on drying kinetics and color change, Drying Technology **2000**, 18, 907-936.
- Khillarkar, D.B., Gong, Z.-X. and Mujumdar, A.S. Melting of a phase change material in concentric horizontal annuli of arbitrary cross-section, Applied Thermal Engineering **2000**, 20, 893-912.
- Nebra, S.A., Silva, M.A. and Mujumdar, A.S. Drying in cyclones – A review, Drying Technology **2000**, 18, 791-832.

## 1999

- Nishimura, A., Deguchi, S., Matsuda, H., Hasatani, M. and Mujumdar, A.S. Effects of pulse cycle and bed height on hydrodynamic characteristics of a pulsated fluidized bed, Kagaku Kogaku Ronbunshu **1999**, 25, 395-399.
- Ogura, H., Shimojyo, R., Kage, H., Matsuno, Y. and Mujumdar, A.S. Simulation of hydration/dehydration of CaO/Ca(OH)<sub>2</sub> chemical heat pump reaction for cold/hot heat generation, Drying Technology **1999**, 17, 1579-1592.
- Gong, Z.-X., Devahastin, S. and Mujumdar, A.S. Enhanced heat transfer in convection-dominated melting in a rectangular cavity with an isothermal vertical wall, Applied Thermal Engineering **1999**, 19, 1237-1251.
- Ng, K.W., Devahastin, S., Mujumdar, A.S. and Arai, N. Passive enhancement of free-convection dominated melting of a phase change material in a

horizontal cylindrical annulus, Journal of Chemical Engineering of Japan **1999**, 32, 353-357.

- Devahastin, S., Mujumdar, A.S. and Raghavan, G.S.V. Hydrodynamic characteristics of a rotating jet annular spouted bed, Powder Technology **1999**, 103, 169-174.
- Devahastin, S. and Mujumdar, A.S. Batch drying of grains in a well-mixed dryer-Effect of continuous and stepwise change in drying air temperature, Transactions of the ASAE **1999**, 42, 421-425.

## **1998**

- Khillarkar, D.B., Devahastin, S. and Mujumdar, A.S. Effect of flipping on free convective heat transfer during melting of a phase change material in concentric horizontal annuli of different cross-section, Thermal Science **1998**, 2, 27-43,.
- Shiravi, A.H., Mujumdar, A.S. and Kubes, G.J. A mathematical model for drum drying of black liquor slurry using superheated steam impinging jets, Canadian Journal of Chemical Engineering **1998**, 76, 1056-1068.
- Jumah, R.Y., Mujumdar, A.S. and Raghavan, G.S.V. Aerodynamics of a novel rotating jet spouted bed, Chemical Engineering Journal **1998**, 70, 209-219, 1998.
- Devahastin, S., Siow, S.L. and Mujumdar, A.S. Effect of inclination on free convective heat transfer during melting of a phase change material in a rectangular enclosure, Applied Mechanics and Engineering **1998**, 3, 491-515.
- Gong, Z.-X., Mujumdar, A.S., Itaya, Y., Mori, S. and Hasatani, M. Drying of clay and nonclay: Heat and mass transfer and quality aspects, Drying Technology **1998**, 16, 1119-1152.
- Ng, K.W., Gong, Z.-X. and Mujumdar, A.S. Flow and heat transfer of convection-dominated melting of a phase change material in horizontal annulus, International Communications in Heat and Mass Transfer **1998**, 25, 631-640.
- Nishimura, A., Deguchi, S., Matsuda, H., Hasatani, M. and Mujumdar, A.S. Solid flow patterns and heat transfer characteristics in a pulsated fluidized bed with flowing large bubbles, Proceedings of the 11<sup>th</sup> International Heat Transfer Conference **1998**, Vol. 4, Kyongju, South Korea, 485-490.
- Devahastin, S., Gong, Z.-X., Mujumdar, A.S. and Arai, N. Free convective heat transfer during melting of a phase change material in a rectangular enclosure: Effect of inclination, Proceedings of the 11<sup>th</sup> International Heat Transfer Conference **1998**, Vol. 7, Kyongju, South Korea, 133-138.
- Ng, K.W., Devahastin, S. and Mujumdar, A.S. Free convective melting of a phase change material in a horizontal cylindrical annulus, Tambov State Technical University Transactions **1998**, 4, 40-52.
- Gong, Z.-X. and Mujumdar, A.S. A finite element model for convection-dominated melting and solidification problems, International Journal of Numerical Methods for Heat and Fluid Flow **1998**, 8, 393-408.
- Gong, Z.-X. and Mujumdar, A.S. Flow and heat transfer in convection-dominated melting in a rectangular cavity heated from below, International Journal of Heat and Mass Transfer **1998**, 41, 2573-2580.

- Devahastin, S., Mujumdar, A.S. and Raghavan, G.S.V. Diffusion-controlled batch drying of particles in a novel rotating jet annular spouted bed, *Drying Technology* **1998**, 16, 525-543.
- Devahastin, S., Bassila, S. and Mujumdar, A.S. A colorimetric technique to quantify wheat grain damage during drying, *Drying Technology* **1998**, 16, 341-349.
- Raghavan, G.S.V., Kalwar, M.I. and Mujumdar, A.S. Static vertical pressure of grains on air inlets of two-dimensional non-aerated spouted beds, *Powder Handling and Processing* **1998**, 10, 21-26.

## 1997

- Gong, Z.-X. and Mujumdar, A.S. Convection-dominated melting in a rectangular cavity, *Tambov State Technical University Transactions* **1997**, 3, 237-256.
- Sablani, S.S., Ramaswamy, H.S. and Mujumdar A.S. Dimensionless correlations for convective heat transfer to liquid and particles in cans subjected to end-over-end rotation, *Journal of Food Engineering* **1997**, 34, 453-472.
- Gong, Z.-X. and Mujumdar, A.S. Finite element analysis of cyclic heat transfer in a shell and tube latent heat thermal storage exchanger, *Applied Thermal Engineering* **1997**, 17, 583-591.
- Ratti, C. and Mujumdar, A.S. Solar drying of foods: Modelling and numerical simulation, *Solar Energy* **1997**, 60, 151-157.
- Gong, Z.-X. and Mujumdar, A.S. Thermodynamic optimization of the thermal process in energy storage using multiple phase change materials, *Applied Thermal Engineering* **1997**, 17, 1067-1083.
- Gong, Z.-X. and Mujumdar, A.S. Non-convergence versus non-conservation in effective heat capacity methods for phase change problems, *International Journal of Numerical Methods for Heat and Fluid Flow* **1997**, 7, 565-579.
- Gong, Z.-X. and Mujumdar, A.S. Finite element analysis of a multi-stage latent heat thermal storage system, *Numerical Heat Transfer, Part A* **1997**, 30, 669-684.
- Grabowski, S., Mujumdar, A.S., Ramaswamy, H.S. and Strumillo, C. Evaluation of fluidized versus spouted bed drying of baker's yeast, *Drying Technology* **1997**, 15, 625-634.
- Passos, M.L., Massarani, G., Freire, J.T. and Mujumdar, A.S. Drying of pastes in spouted beds of inert particles: Design criteria and modeling, *Drying Technology* **1997**, 15, 605-624.
- Gong, Z.-X., Devahastin, S. and Mujumdar, A.S. A two-dimensional finite element model for wheat drying in a novel rotating jet spouted bed, *Drying Technology* **1997**, 15, 575-592.
- Beke, J, Mujumdar, A.S. and Giroux, M. Some fundamental attributes of corn and potato drying in microwave fields, *Drying Technology* **1997**, 15, 539-554.
- Parrouffe, J.M., Dostie, M., Navarri, P., Andrieu, J. and Mujumdar, A.S. Heat and mass transfer relationship in combined infrared and convective drying, *Drying Technology* **1997**, 15, 399-425.

- Pan, Y.-K., Li, Z.-Y., Mujumdar, A.S. and Kudra, T. Drying of a root crop in vibro-fluidized beds, *Drying Technology* **1997**, 15, 215-223.
- Eccles, E.R.A. and Mujumdar, A.S. Bubble phenomena in aerated vibrated beds of small particles, *Drying Technology* **1997**, 15, 95-116.
- Hosseinalipour, S.M. and Mujumdar, A.S. Flow and thermal characteristics of steady two-dimensional confined laminar opposing jets, Part I: Equal Jets; Part II: Unequal Jets, *International Communications in Heat and Mass Transfer* **1997**, 24, 27-50.

## 1996

- Gong, Z.-X. and Mujumdar, A.S. A novel design configuration for a latent heat thermal storage unit, *Thermal Science* **1996**, 22, 281-296.
- Mujumdar, A.S., Innovation in drying, *Drying Technology* **1996**, 14, 1459-1475.
- Chen, H. and Mujumdar, A.S. and Raghavan, G.S.V. Laboratory experiments on electro-osmotic dewatering of vegetable sludge and mine tailings, *Drying Technology* **1996**, 14, 2435-445.
- Jumah, R.Y., Mujumdar, A.S. and Raghavan, G.S.V. Batch drying kinetics of corn in a novel rotating jet spouted bed, *Canadian Journal of Chemical Engineering* **1996**, 74, 479-486.
- Gopalkrishnan, S., Pirkonen, P.M., Mujumdar, A.S. and Weber, M.E. Electrokinetically enhanced vacuum dewatering of mineral slurries, *Filtration & Separation* **1996**, 33, 929-932.
- Gong, Z.-X. and Mujumdar, A.S. Development of drying schedules for one-side heating drying of refractory concrete slabs based on a finite element model, *Journal of the American Ceramic Society* **1996**, 79, 1649-1658.
- Jumah, R.Y., Mujumdar, A.S. and Raghavan, G.S.V. A mathematical model for constant and intermittent batch drying of grains in a novel rotating jet spouted bed, *Drying Technology* **1996**, 14, 765-802.
- Gong, Z.-X. and Mujumdar, A.S. Enhancement of energy charging/discharging rates in composite slabs of different phase change materials, *International Journal of Heat and Mass Transfer* **1996**, 39, 725-733.
- Gong, Z.-X. and Mujumdar, A.S. Exergetic analysis of energy storage using multiple phase change materials, *Transactions of the ASME - Journal of Energy Resources Technology* **1996**, 118, 242-248.
- Etemad, S. Gh., Mujumdar, A.S. and Nassef, R. Simultaneously developing flow and heat transfer of non-Newtonian fluid in equilateral triangular ducts, *Applied Mathematical Modelling* **1996**, 10, 898-908.
- Gong, Z.-X. and Mujumdar, A.S. Cyclic heat transfer in a novel storage unit of multiple phase change materials, *Applied Thermal Engineering* **1996**, 16, 807-816.
- Gopalkrishnan, S., Mujumdar, A.S. and Weber, M.E. Optimal off-time in interrupted electro-osmotic dewatering, *Separation Technology* **1996**, 6, 197-200.

## 1995



- Etemad, S. Gh. and Mujumdar, A.S. Effects of variable viscosity and viscous dissipation on laminar convection heat transfer of a power law fluid in the entrance region of a semicircular duct, *International Journal of Heat and Mass Transfer* **1995**, 38, 2225-2238.
- Hosseinalipour, S.M. and Mujumdar, A.S. Comparative evaluation of different turbulence models for confined impinging and opposing jet flows, *Numerical Heat Transfer, Part A* **1995**, 28, 647-666.
- Poirier, N., Crotogino, R.H., Mujumdar, A.S. and Douglas, W.J.M. The effect of superheated steam drying on the properties of paper from chemical pulp, *Journal of Pulp and Paper Science* **1995**, 21, 374-378.
- Gong, Z.-X. and Mujumdar, A.S. A simultaneous iteration procedure for the finite element solution of enthalpy model for phase change heat conduction problems, *International Journal of Numerical Methods for Heat and Fluid Flow* **1995**, 5, 589-600.
- Gong, Z.-X. and Mujumdar, A.S. A new solar receiver thermal store for space-based activities using multiple composite phase change materials, *Transactions of the ASME - Journal Solar Energy Engineering* **1995**, 117, 215-220.
- Tulasidas, T., Raghavan, G.S.V. and Mujumdar, A.S. Microwave drying of grapes in a single mode cavity at 2450 Hz, Part I: Drying kinetics; Part II: Quality and energy aspects, *Drying Technology* **1995**, 13, 1949-1992.
- Gong, Z.-X. and Mujumdar, A.S. A two-dimensional finite element model for kiln-drying of refractory concrete, *Drying Technology* **1995**, 13, 585-606.
- Hosseinalipour, S.M. and Mujumdar, A.S. Flow, heat transfer and particle motion in confined turbulent opposing slot jets, *Drying Technology* **1995**, 13, 753-782.
- Beke, J., Mujumdar, A.S. and Bosisio, R.G. Drying of fresh and rewetted shelled corn in microwave fields, *Drying Technology* **1995**, 13, 463-475.
- Seyedein, S.H., Hasan, M. and Mujumdar, A.S. Turbulent flow and heat transfer for confined multiple impinging slot jets, *Numerical Heat Transfer, Part A* **1995**, 27, 35-53.
- Ratti, C. and Mujumdar, A.S. Simulation of packed bed drying of foodstuffs with air flow reversed, *Journal of Food Engineering* **1995**, 26, 259-271.
- Gong, Z.-X. and Mujumdar, A.S. The influence of an impermeable surface on pore steam pressure during drying refractory concrete slab, *International Journal of Heat and Mass Transfer* **1995**, 38, 1297-1303.
- Gong, Z.-X. and Mujumdar, A.S. Non-iterative procedure for the finite element solution of the enthalpy model for phase change heat conduction problems, *Numerical Heat Transfer, Part B* **1995**, 27, 437-446.

## 1994

- Rabie, H.R., Mujumdar, A.S. and Weber, M.E. Electro-osmotic dewatering of bentonite in thin beds, *Separation Technology* **1994**, 4, 180-182.
- Gong, Z.-X. and Mujumdar, A.S. Cyclical heat conduction in melting and freezing of composite slabs of different phase change materials, *Proceedings of the 10<sup>th</sup> International Heat Transfer Conference* **1994**, Vol. 4, Brighton, UK, 231-236.

- Shibata, H. and Mujumdar, A.S. Steam drying technologies: Japanese R&D, *Drying Technology* **1994**, 12, 1485-1525.
- Grabowski, S., Mujumdar, A.S. and Ramaswamy, H.S. Osmo-convective drying of grapes, *Drying Technology* **1994**, 12, 1211-1234.
- Bond, J.F., Mujumdar, A.S., van Heiningen, A.R.P. and Douglas W.J.M. Drying paper by impinging jets of superheated steam, Part I: Constant drying rate in superheated steam, *Canadian Journal of Chemical Engineering* **1994**, 72, 446-451.
- Bond, J.F., Mujumdar, A.S., van Heiningen, A.R.P. and Douglas, W.J.M. Drying paper by impinging jets of superheated steam, Part II: Comparison of steam and air as drying fluids, *Canadian Journal of Chemical Engineering* **1994**, 72, 452-456.
- Poirier, N.A., Crotogino, R.H., Mujumdar, A.S. and Douglas, W.J.M., The effect of superheated steam drying on the properties of TMP paper, *Journal of Pulp and Paper Science* **1994**, 20, J97-J102.
- Etemad, S.Gh., Mujumdar, A.S. and Huang, B. Viscous dissipation effects in entrance region heat transfer for a power law fluid flowing between parallel plates, *International Journal of Heat and Fluid Flow* **1994**, 15, 122-132.
- Etemad, S.Gh. and Mujumdar, A.S. Effect of aspect ratio and rounded corners on laminar forced convection heat transfer of a non-Newtonian fluid, *International Communications in Heat Mass Transfer* **1994**, 21, 283-296.
- Seyedein, S.H., Hasan, M. and Mujumdar, A.S. Laminar flow and heat transfer for multiple impinging slot jets with an inclined confinement surface, *International Journal of Heat and Mass Transfer* **1994**, 37, 1867-1875.
- Seyedein, S.H., Hasan, M. and Mujumdar, A.S. Modelling of single confined turbulent slot jet impingement using different various k- $\epsilon$  turbulence models, *Applied Mathematical Modelling* **1994**, 8, 526-537.
- Rabie, H.R., Mujumdar, A.S. and Weber, M.E. Interrupted electro-osmotic dewatering of clay suspensions, *Separation Technology* **1994**, 4, 38-46.
- Passos, M.L., Mujumdar, A.S. and Massarani, G. Scale-up of spouted bed dryers: Criteria and applications, *Drying Technology* **1994**, 12, 351-391.

## **1993**

- Gong, Z.-X. and Mujumdar, A.S. A model for kiln drying of refractory concrete slabs, *Drying Technology* **1993**, 11, 1617-1639.
- Kalwar, M.I., Raghavan, G.S.V. and Mujumdar, A.S. Circulation of particles in two-dimensional spouted beds with draft plates, *Powder Technology* **1993**, 77, 233-242.
- Passos, M.L., Mujumdar, A.S. and Raghavan, G.S.V. Prediction of maximum spoutable bed height in two-dimensional spouted beds, *Powder Technology* **1993**, 74, 97-105.
- Timofeev, O. and Mujumdar, A.S. Press drying, condebelt drying and impulse drying of paper, A selective bibliography, *Drying Technology* **1993**, 11, 1885-1902.
- Beke, J., Vas, A. and Mujumdar, A.S. Impact of process parameters on nutritional value of convectively dried grains, *Drying Technology* **1993**, 11, 1415-1428.

- Ratti, C. and Mujumdar, A.S. Fixed bed batch drying of shrinking particles with time-varying drying air conditions, *Drying Technology* **1993**, 11, 1311-1335.
- Jumah, R.Y. and Mujumdar, A.S. A PC program for preliminary design of a continuous well-mixed fluid bed dryer, *Drying Technology* **1993**, 11, 831-846.
- Beke, J. and Mujumdar, A.S. Influence of drying conditions on the fragility of corn kernels, *Drying Technology* **1993**, 11, 603-614.
- Huang, B. and Mujumdar, A.S. Use of neural network to predict industrial dryer performance, *Drying Technology* **1993**, 11, 525-541.
- Hirose, H. and Mujumdar, A.S. Effect of particle cascade from flights on heat transfer and pressure drop in rotary dryers and coolers, *Drying Technology* **1993**, 11, 195-207.
- Tulasidas, T.L., Kudra, T., Raghavan, G.S.V. and Mujumdar, A.S. Effect of bed height on simultaneous heat and mass transfer in a two-dimensional spouted bed dryer, *International Communications in Heat Mass Transfer* **1993**, 20, 79-88.

## 1992

- Kalwar, M.I., Raghavan, G.S.V. and Mujumdar, A.S. Spouting of two-dimensional beds with draft plates, *Canadian Journal of Chemical Engineering* **1992**, 70, 887-894.
- Alikhani, Z., Raghavan, G.S.V. and Mujumdar, A.S. Adsorption drying of corn in zeolite granules using a rotary drum, *Drying Technology* **1992**, 10, 783-797.
- Shivhare, U.S., Raghavan, G.S.V., Bosisio, R.G. and Mujumdar, A.S. Microwave drying of corn III - Intermittent operation, *Transactions of the ASAE* **1992**, 35, 959-962.
- Zhang, D. and Mujumdar, A.S. Deformation and stress analysis of porous capillary bodies during intermittent volumetric thermal drying, *Drying Technology* **1992**, 10, 421-443.
- Chen, S.-R., Chen, J.-Y. and Mujumdar, A.S. Preliminary study of steam drying of silkworm cocoons, *Drying Technology* **1992**, 10, 251-260.
- Eccles, E.R.A. and Mujumdar, A.S. Correlation for cylinder-to-bed heat transfer in aerated vibrated beds of small particles, *Drying Technology* **1992**, 10, 165-187.
- Eccles, E.R.A. and Mujumdar, A.S. Cylinder-to-bed heat transfer in aerated vibrated beds of small particles. *Drying Technology* **1992**, 10, 139-164.
- Malhotra, K. and Mujumdar, A.S. Particle flow and contact heat transfer characteristics of stirred granular beds, *Drying Technology* **1992**, 10, 51-80.
- Ramamurthy, P., Mujumdar, A.S., van Heiningen, A.R.P. and Kubes, G.J. Concentration of black liquor to high solids, *TAPPI Journal* **1992**, 74, 195-202.

## 1991

- Shivhare, U.S., Raghavan, G.S.V., Bosisio, R.G. and Mujumdar, A.S. Particulate drying in microwave environment with varying initial moisture content, *Powder Handling and Processing* **1991**, 3, 153-157.
- Kalwar, M.I, Kudra, T., Raghavan, G.S.V. and Mujumdar, A.S. Drying of grains in a drafted two-dimensional spouted bed, *Journal of Food Process Engineering* **1991**, 5, 321-332.
- Kudra, T., Pan, Y.-K. and Mujumdar, A.S. Evaporation from single droplets impinging on heated surfaces, *Drying Technology* **1991**, 9, 693-707.
- Dong, Z.-X., Pan, Y.-K., Wei, Z. and Mujumdar, A.S. Effect of vibration on the drying rate during the falling rate period, *Drying Technology* **1991**, 9, 723-733.
- Polat, S., Mujumdar, A.S., van Heiningen, A.R.P. and Douglas, W.J.M. Numerical model for turbulent jets impinging on a surface with throughflow, *Journal of Thermophysics and Heat Transfer* **1991**, 5, 172-180.
- Gong, Z.-X., Song, B. and Mujumdar, A.S. Numerical simulation of drying of refractory concrete, *Drying Technology* **1991**, 9, 479-500.
- Bond, J.-F., Crotagino, R.H., Douglas, W.J.M., Mujumdar, A.S. and van Heiningen, A.R.P. Impingement drying of paper in superheated steam in the constant rate period, *Technology Today* **1991**, 5, 284-288.
- Ju, S., Weber, M.E. and Mujumdar, A.S. Electroosmotic dewatering of bentonite suspensions, *Separations Technology* **1991**, 1, 214-221.
- Hasan, M., Mujumdar, A.S. and Weber, M.E. Cyclic melting and freezing, *Chemical Engineering Science* **1991**, 47, 1537-1587.
- Polat, S., Mujumdar, A.S. and Douglas, W.J.M. Impingement heat transfer under a confined slot jet, Part I: Effect of surface throughflow, *Canadian Journal of Chemical Engineering* **1991**, 69, 266-273.
- Polat, S., Mujumdar, A.S. and Douglas, W.J.M. Impingement heat transfer under a confined slot jet, Part II: Effects of surface motion and throughflow, *Canadian Journal of Chemical Engineering* **1991**, 69, 274-280.
- Malhotra, K. and Mujumdar, A.S. Model for contact heat transfer in mechanically stirred granular beds, *International Journal of Heat Mass Transfer* **1991**, 34, 415-425.
- Mujumdar, A.S. Drying technologies of the future, *Drying Technology* **1991**, 9, 325-347.
- Pan, Y.-K., Gan, Y.-M., Liu, X.-D., Wei, Z. and Mujumdar, A.S. Drying of sticky granular materials during the constant rate period in a vibrated fluidized bed, *Drying Technology* **1991**, 9, 1067-1079.
- Malhotra, K. and Mujumdar, A.S. Wall-to-bed heat transfer rates in mechanically stirred granular beds, *International Journal of Heat Mass Transfer* **1991**, 34, 427-435.

## 1990

- Kudra, T., Mujumdar, A.S., Raghavan, G.S.V. and Kalwar, M.I. Two-dimensional spouted beds for thermal processing, *Powder Handling and Processing* **1990**, 2, 347-353.
- Passos, M.L., Mujumdar, A.S. and Raghavan, G.S.V. Spouted and spout-fluidized beds for grain drying, *Drying Technology* **1990**, 7, 660-696.

- Malhotra, K. and Mujumdar, A.S. Effects of particle shape on particle-surface thermal contact resistance, *Journal of Chemical Engineering of Japan* **1990**, 23, 510-513.
- Polat, S., Mujumdar, A.S., van Heiningen, A.R.P. and Douglas, W.J.M. Effect of near-wall modelling on prediction of impingement heat transfer, *Drying Technology* **1990**, 8, 705-730.
- Malhotra, K., Miyahara, M. and Mujumdar, A.S. Estimation of particle renewal rates along the wall in mechanically stirred granular beds, *Chemical Engineering and Processing* **1990**, 27, 121.
- Kumar, P. and Mujumdar, A.S. Effect of drying on pulp and paper properties: A bibliography, *Drying Technology* **1990**, 8, 543-569.
- Kumar, P. and Mujumdar, A.S. Superheated steam drying: A bibliography, *Drying Technology* **1990**, 8, 195-205.
- Kumar, P., Mujumdar, A.S. and Koran, Z. Microwave drying: Effects on paper properties, *Drying Technology* **1990**, 8, 1061-1088.

#### **1989**

- Lawal, A. and Mujumdar, A.S. Viscous dissipation effects on thermal entrance heat transfer to power-law fluids in arbitrary cross-sectional ducts, *Chemical Engineering Journal* **1989**, 41, 57-66.
- Kudra, T., Mujumdar, A.S. and Raghavan, G.S.V. Gas-to-particle heat transfer in two-dimensional spouted beds, *International Communications in Heat and Mass Transfer* **1989**, 16, 731-741.
- Poirier, N. and Mujumdar, A.S. Numerical solutions to the Graetz problem – Achieving accuracy in the entrance region, *International Communications in Heat and Mass Transfer* **1989**, 16, 205-514.
- Erdesz, K. and Mujumdar, A.S. Numerical investigation of a phenomenological model of a vibrated fluidized bed, *Drying Technology* **1989**, 7, 487-502.
- Kudra, T. and Mujumdar, A.S. Impinging stream dryers for particles and pastes, *Drying Technology* **1989**, 7, 219-266.

#### **1988**

- Mujumdar, A.S. and Erdesz, K. Applications of vibration techniques for drying and agglomeration in food processing, *Drying Technology* **1988**, 6, 275-290.
- Malhotra, K., Mujumdar, A.S., Imakoma, H. and Okazaki, M. Fundamental particle mixing studies in an agitated bed of granular materials in a cylindrical vessel, *Powder Technology* **1988**, 55, 107-114.
- Mujumdar, A.S. and Passos, M.L. Dryer design project – A tool to teach drying and design to undergraduates, *Drying Technology* **1988**, 6, 275-290.

#### **1987**

- Filkova, I., Lawal, A. and Mujumdar, A.S. Heat transfer and power-law fluids in tube flow: Numerical and experimental studies, *Journal of Food Engineering* **1987**, 6, 143-151.

- Malhotra, K. and Mujumdar, A.S. Immersed surface heat transfer in a vibrated fluidized bed, *Industrial and Engineering Chemistry Research* **1987**, 26, 1983-1992.
- Fallavollita, J.A., Avedesian, M.M. and Mujumdar, A.S. Kraft black liquor recovery in a fluidized bed, *Canadian Journal of Chemical Engineering* **1987**, 65, 812-817.
- Weber, M.E., Witwit, S.M. and Mujumdar, A.S. A model for electro-osmotic dewatering under constant voltage, *Drying Technology* **1987**, 5, 467-474.
- Jariwala, V.G., Mujumdar, A.S. and Weber, M.E. The periodic steady state for cyclic energy storage in paraffin wax, *Canadian Journal of Chemical Engineering* **1987**, 65, 899-906.
- Lawal, A. and Mujumdar, A.S. Experimental study of heat transfer to pseudo-plastic fluids in square and circular tubes, *Chemical Engineering Communications* **1987**, 59, 309-324.
- Passos, M.L., Mujumdar, A.S. and Raghavan, G.S.V. Pressure drop in slotted spouted beds of grains: Comparison of data with models, *Powder Technology* **1987**, 52, 131-137.
- Hasan, M. and Mujumdar, A.S. Laminar boundary-layer analysis of simultaneous mass and heat transfer in natural convection around a horizontal cylinder, *International Journal of Energy Research* **1987**, 11, 359-371.

#### 1986

- Erdesz, K. and Mujumdar, A.S. Hydrodynamical aspects of conventional and vibrated fluid beds – A comparative evaluation, *Powder Technology* **1986**, 46, 167-172.
- Lawal, A. and Mujumdar, A.S. Extended Graetz problem – A comparison of various solution techniques, *Chemical Engineering Communications* **1986**, 39, 91-100.

#### 1985

- Hasan, M. and Mujumdar, A.S. Combined heat and mass transfer in free convection along a rotating plate under uniform heat and mass fluxes, *Chemical Engineering Communications* **1985**, 35, 212-222.
- van Heiningen, A.R.P., Douglas, W.J.M. and Mujumdar, A.S. A high sensitivity fast-response heat flux sensor, *International Journal of Heat and Mass Transfer* **1985**, 28, 1657-1667.
- Filkova, I., Koziskova, B., Mujumdar, A.S. and Lawal, A. Convective heat transfer in a tube for selected liquids in the food industry, *Sbornik Uvtiz, Potranarske Vedy, (Czech Academy of Agriculture)* **1985**, 3, 173-182,
- Hasan, M. and Mujumdar, A.S. Simultaneous heat and mass transfer in mixed convection along a vertical cone, *Chemical Engineering Communications* **1985**, 36, 281-298.
- Hasan, M. and Mujumdar, A.S. Simultaneous heat and mass transfer in free convection from a horizontal cylinder, *AIAA Journal* **1985**, 23, 1602-1608.
- Lawal, A. and Mujumdar, A.S. Developing flow and heat transfer to power-law fluids in square, trapezoidal and pentagonal Ducts, *International Communications in Heat and Mass Transfer* **1985**, 12, 23-31.

- Conley, N., Lawal, A. and Mujumdar, A.S. An assessment of the accuracy of numerical solutions to the Graetz problem, *International Communications in Heat and Mass Transfer* **1985**, 12, 209-218.
- Lawal, A. and Mujumdar, A.S. Laminar flow and heat transfer for power-law fluids flowing in arbitrary cross-section ducts, *Numerical Heat Transfer* **1985**, 8, 217-244.
- Polat, S., Mujumdar, A.S. and Douglas, W.J.M. Heat transfer distribution under a turbulent impinging jet, *Drying Technology* **1985**, 3, 15-38.
- Hasan, M. and Mujumdar, A.S. Combined heat and mass transfer in free convection about a sphere, *Canadian Journal of Chemical Engineering* **1985**, 63, 412-421.
- Cui, W.-K., Douglas, W.J.M. and Mujumdar, A.S. Impingement steam drying of paper, *Drying Technology* **1985**, 3, 307-320.
- Malhotra, K. and Mujumdar, A.S. Flow patterns for cylinders immersed in an aerated vibrated bed, *Canadian Journal of Chemical Engineering* **1985**, 63, 22-28.
- Hasan, M. and Mujumdar, A.S. Simultaneous heat and mass transfer under mixed convection along a vertical cone, *Energy Research* **1985**, 9, 129-140.
- Hasan, M. and Mujumdar, A.S. Transpiration-induced buoyancy effect around a horizontal cylinder embedded in a porous medium, *Energy Research* **1985**, 9, 151-163.

#### **1984**

- Jaussaud, J.-P., Mujumdar, A.S. and Douglas, W.J.M. Evaporation under an obliquely impinging laminar ducted slot jet – A numerical model, *International Communications in Heat and Mass Transfer* **1984**, 11, 335-344.
- Hasan, M. and Mujumdar, A.S. Coupled heat and mass transfer in natural convection under flux condition along a vertical cone, *International Communications in Heat and Mass Transfer* **1984**, 11, 157-172.
- Hasan, M. and Mujumdar, A.S. Effect of spatially varying acceleration on the combined heat and mass transfer in free convection along a plate, *International Communications in Heat and Mass Transfer* **1984**, 11, 591-604.
- Ringer, D.U. and Mujumdar, A.S. Analysis of aerodynamics and heat transfer in vibro-fluidized beds, *Drying Technology* **1984**, 2, 449-470.
- Mujumdar, A.S. and Cui, W.-K. Superheated steam drying of paper and board, *IPPTA Journal* **1984**, 21, 49-53.
- Malhotra, K., Law, L.K.C. and Mujumdar, A.S. Pressure drop characteristics for vibrated beds of dry and sticky particles, *Powder Technology* **1984**, 39, 101-104.
- Cui, W.-K. and Mujumdar, A.S. Trends in drying of paper, *China Pulp & Paper* **1984**, 2, 43-52.
- Lawal, A. and Mujumdar, A.S. Forced convection heat transfer to a power-law fluid in arbitrary cross-section ducts, *Canadian Journal of Chemical Engineering* **1984**, 62, 326-333.

## **2. CONFERENCE PUBLICATIONS (PARTIAL LIST)**

### **2015**

- Jangam, S.V., Mujumdar, A.S. Innovation in drying - Needs, challenges and selected examples, Keynote lecture at 8<sup>th</sup> Asia Pacific Drying Conference, Kuala Lumpur, Malaysia, 10-12 August, 2015.
- Somasundaram, K., Jangam, S.V., Mujumdar, A.S. Modeling heat and mass transfer in cylindrical bodies, 8<sup>th</sup> Asia Pacific Drying Conference, Kuala Lumpur, Malaysia, 10-12 August, 2015.
- Mujumdar, A.S., Jangam, S.V. Innovative drying technologies for foods and agro- products (Keynote), International Congress on Engineering and Food Innovations (ICEF12), Quebec City, Canada, June 14-18, 2015.

### **2014**

- Jangam S.V., Sasmito A.P., Kurnia J., Mujumdar A.S. Research Project-based Learning (RPBL) in Higher Education. International Conference on Teaching & Learning in Higher Education TLHE 2014, Singapore.

### **2013**

- Mujumdar, A.S., Jangam, S.V. Advances in Drying of Foods and Agricultural Products, Keynote lecture at 1st International Conference and Workshop at NIFTEM, Kundli, India, 10-12 January, 2013.
- Kurnia, J.C., Mujumdar, A.S., Implementation of a Hybrid Brattice to Control Dust Dispersion in Underground Coal Mine Faces, 24th World Mining Congress, Montreal, Canada, 11-15 August 2013. (abstract accepted poster presentation)
- Kurnia, J.C., Mujumdar, A.S., Simulation of Methane Distribution and Ventilation in Underground Mines: Potential for a Novel Intermittent Airflow System, 24th World Mining Congress, Montreal, Canada, 11-15 August 2013. (abstract accepted poster presentation)



## 2012

- Itaya, Y., Jangam, S.V., Mujumdar, A.S. Upgradation of low rank coals: An overview of assessment of various thermal and nonthermal technologies. World Clean Coal Week Indonesia Focus 2012, Bali, Indonesia, November 25-27, 2012.
- Jangam, S.V.; Mujumdar, A.S. Hybrid drying technologies coal-biomass mixture: an overview, International Drying Symposium 2012, Xiamen, China, November 11-15, 2012.
- Osman, H; Jangam, S.V.; Mujumdar, A.S. Flow and Heat Transfer Characteristics of a Screw Conveyor Heat Exchanger—Some Exploratory DEM Studies. 5<sup>th</sup> Asian Particle Technology Symposium, APT2012, Singapore, July 02-05, 2012.
- Jangam, S.V.; Osman, H; Mujumdar, A.S. An overview of upgrading low rank coals (LRC), Symposium on New Equipment New Technology Management and Safety in Mines and Mineral Based Industries, Bhubaneswar, India, May 11-12, 2012.
- Sasmito, A.P., Shamim, T., Birgersson, E., Mujumdar, A.S. Computational Study of Edge Cooling for Open-Cathode Polymer Electrolyte Fuel Cell Stacks, ASME 2012 International Mechanical Engineering Congress & Exposition, Houston, Texas, 2012.

## 2011

- Sasmito, A.P., Birgersson, E., Mujumdar, A.S. Thermal, Water and Gas Management in PEM Fuel Cell – A Modeling Approach, 4th Sriwijaya International Seminar on Energy Science and Technology (SISEST), Palembang, Indonesia, 2011.
- H. Osman, S.V. Jangam and A.S. Mujumdar (2011). Hydrodynamics and heat transfer characteristics of coal particle in a screw conveyor - DEM simulation results. 4th SISEST, Palembang, Indonesia, 5-7 October, 2011.
- H. Osman, S.V. Jangam and A.S. Mujumdar (2011). DEM simulations of flow of coal particles in a screw conveyor dryer configuration. 7th Asia-Pacific Drying Conference (ADC2011), Tianjin, China, 18-20 September, 2011.
- W. Zhonghua, W. Long, Z. Li, Y. Xie and A.S. Mujumdar (2011). Atomizing and Drying of Sewage Sludge Using a Helmholtz Pulse Combustor, 7th Asia-Pacific Drying Conference (ADC2011), Tianjin, China, 18-20 September, 2011.
- Sasmito, A.P., Kurnia, J.C., Jangam, S.V., Mujumdar, A.S. Improved Design for Heat Transfer Performance of a Novel Phase Change Material (PCM) Thermal Energy Storage (TES), 4th Sriwijaya International Seminar on Energy Science and Technology (SISEST), Palembang, Indonesia, 2011.
- Sasmito, A.P., Ly, H., Birgersson, E., Mujumdar, A.S. Design of Underground Coal Mines Ventilation System in a Rapid Mining Development Region – A Computational Fluid Dynamic Study, 4th Sriwijaya International Seminar on Energy Science and Technology (SISEST), Palembang, Indonesia, 2011.
- Mujumdar, A.S., Jangam, S.V. Some innovative drying technologies for dehydration of foods. Submitted to International Congress on Engineering and Food to be held at Athens, Greece during May 22-26, 2011.

- Ly, H., Sasmito, A.P., Birgersson, E., Lum, K.W., Mujumdar, A.S. Towards a Mathematical Multi-Scale Framework for Total Air-Conditioning in Mines, submitted to World Mining Congress 2011, Turkey.
- Sasmito, A.P., Ly, H., Birgersson, E., Lum, K.W., Mujumdar, A.S. Improved total air-conditioning system in underground coal mines - A computational study, submitted to World Mining Congress 2011, Turkey.
- Somasundaram, K., Birgersson, E., Yeong, K.T.H., Mujumdar, A.S. Passive Thermal-management of a Li-ion Battery Cell: a Computational Study, ICMAT 2011, 26th June - 1st July 2011, Singapore.
- Somasundaram, K., Birgersson, E., Yeong, K.T.H., Mujumdar, A.S. Development of a Mathematical Model for Spiral-wound Li-ion Batteries, ICMAT 2011, 26th June - 1st July 2011, Singapore.

## 2010

- Sasmito, A. P., Birgersson, E. and Mujumdar, A. S. Fuel Cell Research and Development with ANSYS FLUENT - From Fundamentals to Applications, 8th ASEAN ANSYS Conference, Singapore, 2010.
- Kurnia, J.C., Sasmito, A. P. and Mujumdar, A.S. Computational Study of Energy-Efficient Thermal Drying Using Intermittent Impinging Jets, 8th ASEAN ANSYS Conference, Singapore, 2010.
- Kurnia, J.C., Sasmito, A. P. and Mujumdar, A.S. Evaluation of heat transfer performance of helical coils of non-circular tubes, International Symposium on Innovative Materials for Processes in Energy Systems (IMPRES) 2010, Singapore, 2010.
- Kurnia, J.C., Sasmito, A. P. and Mujumdar, A.S. Convective heat transfer in coils of non-circular cross-sections: CFD study of laminar heat transfer enhancement relative to straight pipes, Sriwijaya International Seminar on Energy Science and Technology (SISEST) 2010, Palembang, Indonesia, 2010.
- Kurnia, J.C., Birgersson, E. and Mujumdar, A.S. Analysis of Polyelectrolyte Temperature Sensitive Hydrogels, Regional Conference on Mechanical and Aerospace Technology 2010 Bali, Indonesia.
- Sasmito, A. P., E. Birgersson, A. S. Mujumdar. Computational study of Flow reversal for Improved Thermal Management in a PEMFC Stack with Forced Air Convection Cooling. ASME 14th International Heat Transfer Conference, p. 22787, Washington D. C., United States of America, 2010. (submitted).
- Sasmito, A. P., E. Birgersson, K. W. Lum, A. S. Mujumdar. Numerical Study of Natural Convection Air Cooling of a Polymer Electrolyte Fuel Cell: Single Cell and Stack, Regional Conference on Mechanical and Aerospace Technology, p. 114, Bali, Indonesia, 2010.
- Ong, M.J.Y., Jangam, S.V., Mujumdar, A.S., Gong, Z.X. Improving energy efficiency and sustainability of industrial thermal drying systems using simprosys software, International Symposium on Innovative Materials for Processes in Energy Systems, Singapore, 2010.
- Jangam, S.V., Mujumdar, A.S. Making upgrading of low rank coals by thermal dehydration more sustainable - proposed alternative scenarios, The 3rd Sriwijaya International Seminar on Energy Science and Technology (SISEST 2010), Indonesia, 2010.

- Jangam, S.V., Kuma, J. M., Mujumdar, A.S. A critical assessment of industrial coal drying technologies, International Drying Symposium (IDS), Germany, 2010.
- Somasundaram, K., Birgersson, E., Mujumdar, A.S. A Coupled Thermal-Electrochemical Reduced Model of a Lithium-Ion Battery, International Conference on Applied Energy, Singapore, p294-303, April 21-23, 2010.
- Somasundaram, K., Birgersson, E., Mujumdar, A.S. Automated Code Generation for a Lithium-Ion Battery Stack Model, International Conference on Applied Energy, Singapore, p304-312, April 21-23, 2010.
- Mujumdar, A.S. Some strategies for drying of high moisture coals, Keynote lecture at The 3rd Sriwijaya International Seminar on Energy Science and Technology (SISEST 2010), Indonesia, 2010.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Evaluation of heat transfer performance of helical coils of non-circular tubes, International Symposium on Innovative Materials for Processes in Energy System 2010, submitted.
- Kurnia, J.C., Sasmito, A.P., Mujumdar, A.S. Convective heat transfer in coils of non-circular cross-sections: CFD study of laminar heat transfer enhancement relative to straight pipes, Sriwijaya International Seminar on Energy Science and Technology 2010, submitted.

## 2009

- Mujumdar, A.S. and C.L. Law, Drying Technology: Trends and Applications in Postharvest Processing, 5th International Technical Symposium on Food Processing, Monitoring Technology in Bioprocesses and Food Quality Management, Aug 31st - Sept 2nd, 2009, Potsdam, Germany.
- Fazle Mahbub, M N A Hawlader and A S Mujumdar, Exergoeconomic Analysis of a Combined Water and Power Plant (CWPP): Endeavor towards enhanced efficiency, EDS Conference and Exhibition on Desalination for the Environment 17-20 May 2009, Kongresshaus, Baden-Baden, Germany.
- Law, C.L. and A.S. Mujumdar, Energy issues in industrial drying, Keynote Lecture, SISST2009 Conf., Palembang, Indonesia, Oct.14-15,2009.
- Fazle Mahbub, M N A Hawlader and A. S. Mujumdar , Exergoeconomic Analyses of a Combined Water and Power Plant (CWPP), ASME 3rd International Conference on Energy Sustainability ES2009 19-23 JULY, 2009, San Francisco, CA, USA.
- Peng Xu, A. Mujumdar and Mita Ray, Design and optimize hydrocyclone with mathematical modeling, 4th Inter-American Drying Conference in conjunction with 8th World Congress of Chemical Engineering, Montreal, Canada, August 23-27, 2009.
- Peng Xu, Hee Joo Poh, A.S. Mujumdar and B. Yu, Heat transfer under a round pulsed turbulent impinging jet at large temperature differences-A computational analysis, The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009 .
- A.S. Mujumdar, International Drying Conferences: Past Performance, Present Status and Future Prospects, Fourth Nordic Drying Conference, Reykjavik, Iceland, 17-19 Jun 2009.
- Peng Xu, Hee Joo Poh, A.S. Mujumdar and Boming Yu, Some modeling studies on pulsed turbulent impinging jet heat transfer, Fourth Nordic

Drying Conference, Reykjavik, Iceland, 17-19 Jun 2009.

- M.W. Woo, W.R.W. Daud, A.S. Mujumdar, Z.H. Wu, M.Z.M. Talib, S.M. Tasirin, Some Perspectives on Droplet Drying Models in Spray Drying, Fourth Nordic Drying Conference, Reykjavik, Iceland, 17-19 Jun 2009.
- S.M.A. Rahman and A.S. Mujumdar, A Vortex Tube Assisted Atmospheric Freeze Drying System Using Multimode Heat Input, Fourth Nordic Drying Conference, Reykjavik, Iceland, 17-19 Jun 2009.
- X. Duan, M. Zhang, A.S. Mujumdar, R. Wang, Trends in Microwave - Assisted Freeze Drying of Foods, Fourth Nordic Drying Conference, Reykjavik, Iceland, 17-19 Jun 2009.
- Peng Xu, Hee Joo Poh, A.S. Mujumdar and B. Yu, Pulsed turbulent impinging jets: CFD study of flow and heat transfer characteristics, 20th National and 9th ISHMT-ASME Heat and Mass Transfer Conference, Mumbai, India, 4-6 Jan 2010.
- WU, Z.H. and A S Mujumdar, Modeling of post combustion in an electric arc furnace for advanced steelmaking. the 7th Asia Pacific Conference on Sustainable Energy and Environmental Technologies , Oct 15-17, 2009, Blue Horizon Marina Gold Hotel, Qingdao, China
- WU, Z and A S Mujumdar, Pulse Combustion: An Energy Efficient Combustion Technology with Potential Applications. the 7th Asia Pacific Conference on Sustainable Energy and Environmental Technologies Oct 15-17, 2009, Blue Horizon Marina Gold Hotel, Qingdao, China
- Mujumdar, A S and Z WU, Green Drying Technologies- A Case for Application of Integrated Renewable Energy Sources. the 7th Asia Pacific Conference on Sustainable Energy and Environmental Technologies, Oct 15-17, 2009, Blue Horizon Marina Gold Hotel, Qingdao, China
- Wu, Z and A S Mujumdar, Vortex forming Mechanisms in the Tundish. International Conference on Advances in Theory of Ironmaking and Steelmaking, Dec 9 - 11, 2009, Bangalore, India
- Wu, Z and A S Mujumdar, Exploration of Some New Tundish Designs via Simulation. International Conference on Advances in Theory of Ironmaking and Steelmaking, Dec 9 - 11, 2009, Bangalore, India
- Wu, Z.H., Mujumdar, A.S. , Some Exploratory modeling results on superheated steam fluid bed drying of coal powder, 12th Polish Drying Symposium, Poland/ Lodz,, Sep 12-14, 2009
- Wu, Z.H., Mujumdar, A.S. , Role of modeling in development of drying technologies, 12th Polish Drying Symposium, Poland/ Lodz,, Sep 12-14, 2009.
- Huang, L.X., Wang, C.P., Zhou, R.J., Mujumdar, A.S. Spray Droplet Size Distribution using a Spinning Disk Atomizer, The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009.
- Woo, M.W., Daud, W.R.W., Mujumdar, A.S., Wu, Z.H., Talib, M.Z.M., Tasirin, S.M. Flow Stability in Short Form Spray Dryers, The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009.
- Rahman, S.M.A., Mujumdar, A.S. Drying at Subzero Temperature with Vortex Tube and Different Modes of Heat Input-A New Alternative for High Quality Food Products, The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009.

- Huang, L.X., Liao, C.H., Wang, C.Z., Fang, X., Zhang, C.H., Mujumdar, A.S. Experimental Investigation of Supercritical Fluid Drying of Ginkgo Biloba Leave Extracts, The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009.
- Piacentini, R.D., Mujumdar, A.S. Climate Change and Improvement of Industrial Drying Operations. The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009.
- Zhang, C.H., Huang, L.X., Mujumdar, A.S. Prediction of the Spray-Dried Properties of Ginkgo Biloba Seeds, The 6th Asia-Pacific Drying Conference, Bangkok, Thailand, 19-21 Oct 2009.

## 2008

- Peng Xu, Z. Wu, Arun S. Mujumdar, B. Yu, Innovative hydrocyclone designs to reduce erosion-induced wear in mineral dewatering processes, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- M.W. Woo, W. Daud, A.S. Mujumdar, M.Z.M. Talib, Z.H. Wu, S.M. Tasirin, CFD Evaluation of Dropelt Drying Models in a Spray Dryer Fitted with a Rotary Atomizer, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- S.M.A. Rahman and A. S. Mujumdar, Vortex tube-assisted Atmospheric Freeze Drying of Osmotically Pretreated Biological Materials, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- Z.H. Wu, A.S. Mujumdar D.J. Lee, Dewatering and drying in mineral processing industry: potential for innovations, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- Shusheng Pang and Arun S. Mujumdar, Drying of woody biomass for bioenergy: drying technologies and operation for an integrated bioenergy plant, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- N. Milosavljevic and A.S. Mujumdar, Air impingement drying-technology for future paper machines, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- M. Karthikeyan, J.V.M. Kuma, A.S. Mujumdar, Experimental Investigations On Minimization Of Moisture Re-Adsorption In Dried Coal, 16th International Drying Symposium (IDS2008), Hyderabad, India, November, 2008.
- Kah Wai Lum, Erik Birgersson, Hee Joo Poh, Arun Mujumdar, A numerical study and design of multiple jet impingement in a PEMFC, 6th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2008), University of Pretoria, South Africa, June-July 2008.
- Z.H. Wu, A.S. Mujumdar, Optimization of post combustion process in an Electrical Arc Furnace, Third International Conference Processing Material for Properties, Bangkok, Thailand, December, 2008.
- Z.H. Wu, A.S. Mujumdar, Optimization of liquid steel flow in a industrial Tundish, Third Baosteel Biennial Academic Conference, Shanghai, China, September, 2008.

- K.W. Lum, E. Birgersson, Agus P Sasmito, H.J. Poh, Arun S Mujumdar, Numerical study of forced air convection for Polymer Electrolyte Fuel Cell Stacks, 213th Electrochemical Society Meeting, Phoenix, USA, May 2008.
- Kah Wai Lum, Erik Birgersson, Hee Joo Poh, Arun Mujumdar, A numerical study and design of multiple jet impingement in a PEMFC, *6th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2008)*, University of Pretoria, South Africa from 30 June - 2 July 2008
- Agus P Sasmito, E. Birgersson, Arun S Mujumdar, Numerical investigation of PEMFC stack cooling, 6th International conference on Heat transfer, Fluid mechanics and Thermodynamic (HEFAT 2008), University of Pretoria, South Africa, June-July, 2008.
- Agus P Sasmito, E. Birgersson, Arun S Mujumdar, Implementation and validation of a CFD model for PEMFC with a net-type flow field, 6th International conference on Heat transfer, Fluid mechanics and Thermodynamic (HEFAT 2008), University of Pretoria, South Africa, June-July, 2008.
- Agus P Sasmito, E. Birgersson, K.W. Lum, Arun S Mujumdar, Transient analysis of a PEFC with a dead-end anode, 1st International conference on Applied energy, Hong Kong, January, 2009.
- Agus P Sasmito, E. Birgersson, K.W. Lum, Arun S Mujumdar, Numerical study of natural convection air cooling of a PEFC: Single cell and stack, 1st International conference on Applied energy, Hong Kong, January, 2009.
- Arun S. Mujumdar, Law Chung Lim, Recent Developments in Drying of Foods, *International Symposium on Innovations in Food Processing*, National Pingtung University of Science and Technology. 20 Nov 2008. pp. 89-95.
- Law Chung Lim, Arun S. Mujumdar, Energy Aspect in Drying, *Sriwijaya International Seminar on Energy Science and Technology (SISEST 2008)*, Sriwijaya University, Palembang Indonesia. 5-6 Nov 2008. KS06
- Peng Xu, A. Mujumdar and B. Yu, Novel hydrocyclone designs based on CFD modeling, *15th Regional Symposium on Chemical Engineering in conjunction with 22nd Symposium of Malaysian Chemical Engineers (RSCE-SOMChE 2008)*, Kuala Lumpur, Malaysia, 2008 (MAT019-O).
- Peng Xu, A. Mujumdar, CFD model of a hydrocyclone, *7th ASEAN ANSYS User Conference*, Singapore, 2008
- Fazle Mahbub, M. N. A. Hawlader, A. S. Mujumdar, Combined Water And Power Plant (CWPP) – A Novel Desalination Technology, Proc. of Euromed 2008 Conference Nov 9-13, 2008 - Dead Sea, Jordan.
- S. Banooni, S.M. Hosseinalipour, A.S. Mujumdar, Numerical modeling of the simultaneous heat and mass transfer inside the Iranian bread during baking in an impingement oven, 15<sup>th</sup> Regional Symposium on Chemical Engineering in conjunction with 22<sup>nd</sup> Symposium of Malaysian Chemical Engineers, 2-3 December 2008, Kuala Lumpur, Malaysia
- S. Banooni, S.M. Hosseinalipour, A.S. Mujumdar, Development of Air Impingement Technology and Data Acquisition System for Bread baking Study, 16<sup>th</sup> Annual (International) Conference on Mechanical Engineering-ISME, 14-16 May 2008, Kerman, Iran

- S. Banooni, S.M. Hosseinalipour, A.S. Mujumdar, A good turbulence model for prediction of flow field and heat transfer of impinging jets, 11<sup>th</sup> Annual (International) Conference on fluid dynamics, 6-8 March 2008, Tehran, Iran

## 2007

- Mujumdar, A.S., New developments and innovations in drying technologies, 2<sup>nd</sup> World Forum on Chrystallization, Filtration and Drying, Mumbai, India, Feb. 2007.
- Mujumdar A.S. and Wu Z.H., Thermal drying technologies: new developments and future R&D potential, Keynote lecture, HEFAT, Sun City, South Africa, June, 2007.
- Rahman, S.M.A. Tan Heong Kim and Mujumdar, A. S. An experimental study on atmospheric freeze drying system using a vortex tube and multimode heat input. ADC07, Hong Kong, August 2007, pp: 877-882.

## 2006

- A.S. Mujumdar; Innovation and globalization in drying R&D; Proc. of IDS2006, 15th International Drying Symposium Budapest, Hungary, Ed. I. Farkas, Svent Istvan University, Godollo, Hungary, Vol. A, pp 3-17, August 2006.
- B.N. Thorat, A.K. Patel, S.S. Waje and A.S. Mujumdar; Recent advances in fluid bed drying; 15th International Drying Symposium Budapest, Hungary, Ed. I. Farkas, Svent Istvan University, Godollo, Hungary, Vol. A, pp 54-67, August 2006.
- S.S. Waje, B.N. Thorat and A.S. Mujumdar; Screw conveyor dryer: Process and equipment design; 15th International Drying Symposium Budapest, Hungary, Ed. I. Farkas, Svent Istvan University, Godollo, Hungary, Vol. A, pp 621-628, August 2006.
- H. Ogura, S. Yasuda, Y. Otsubo and A.S. Mujumdar; Continuous operation of a chemical heat pump; 15th International Drying Symposium Budapest, Hungary, Ed. I. Farkas, Svent Istvan University, Godollo, 2006.
- Z.H. Wu, A.S. Mujumdar, X.D. Liu and L. Yang; Pulse combustion impingement to enhance paper drying; 15th International Drying Symposium Budapest, Hungary, Ed. I. Farkas, Svent Istvan University, Godollo, Hungary, Vol. B., pp 971-978, August 2006.
- S.M.A. Rahman, M.R. Islam and A.S. Mujumdar; A study of coupled heat and mass transfer through a composite food product during convective drying; 15th International Drying Symposium Budapest, Hungary, Ed. I. Farkas, Svent Istvan University, Godollo, Hungary, pp 1503-1509 August, 2006.
- Mujumdar, A.S., Academic Research: Effect of Globalization and Role of Innovation, Plenary Lecture, CHEMECA2006, Joint Australia-New Zealand Chemical Engineering Conference, Auckland, New Zealand, September 2006.
- Mujumdar, A.S., Overview of R&D projects utilizing FLUENT CFD software, Invited lecture, FLUENT Users' Group Meeting, Singapore, July 27-28, 2006.

- Mujumdar, A.S., Modeling of Selected Problems in Industrial Transport Processes, Plenary lecture, ENIEF 2006, XV Congress on Numerical Methods and their Applications, Santa Fe, Argentina, Nov. 7-10, 2006.
- Z.Q. Lou, C. Yap and A.S. Mujumdar, "Numerical Investigation of Two-phase Impinging Jet Heat Transfer with Mixture Model", Abstract accepted by ASME ATI Conference, Milan, Italy, 2006
- Wang X.-Q., Mujumdar, A.S. and Yap, C., Optimization of fractal-like microchannel networks, Fluent User Group Meeting, Singapore, July 27-28, 2006.
- Wang X.-Q., Mujumdar, A.S. and Yap, C., Free convection heat transfer in horizontal and vertical rectangular cavities filled with nanofluids, 13<sup>th</sup> Int. Conference of Heat Transfer, Sydney, Australia, August 13-18, 2006.
- Wang, X.Q., Mujumdar, A.S. and Yap, C., Free convection heat transfer in horizontal and vertical rectangular cavities filled with nanofluids, 13<sup>th</sup> International Heat Transfer Conference, Sydney, Australia, August 13-18, 2006.
- Z.Q. Lou, C. Yap and A.S. Mujumdar, "Experimental Investigation of Single Phase and Boiling Heat Transfer of Pure Water Under a Micro-impinging Jet Heat Transfer" Abstract accepted by ECI Conference on Boiling, Spoleto 7-12 May 2006.
- Xiang-Qi Wang, Arun S. Mujumdar, and Christopher Yap, Free convection heat transfer in horizontal and vertical rectangular cavities filled with nanofluids, submitted to 13th International Heat Transfer Conference, Sydney, Australia, 13-18 August, 2006.
- Hee Joo Poh, Rina Lum, Lou Jing, Arun. S. Mujumdar, Investigation of New Channel Designs on PEMFC Performance, /ASME The Fourth International Conference on FUEL CELL SCIENCE, ENGINEERING and TECHNOLOGY/, June, 19-21, 2006, Irvine, California, Abstract accepted - FUELCELL2006-97242.

## 2005

- Mujumdar, A.S., Innovation and R&D needs in industrial drying technologies, Plenary lecture, Asia Pacific Drying Conference ADC2005, Proceedings, pp. 3-36, 2005.
- Tong, C.K., Islam, M.R., and Mujumdar, A.S., Mechanical means of enhancing drying rates: Effect on drying kinetics and quality, Asia Pacific Drying Conference ADC2005, Proceedings, pp. 289-305, 2005.
- Huang, L., Mujumdar, A.S. and Zhou, C., Development of a novel two-stage horizontal spray dryer using CFD, Asia Pacific Drying Conference ADC2005, Proceedings, pp. 613-625, 2005.
- Zhonghua, W., mujumdar, A.S. Liu, X and Yang, L., Flow and heat characteristics under an impinging pulse combustor tailpipe exhaust, Asia Pacific Drying Conference ADC2005, Proceedings, pp. 670-684, 2005.
- Z.Q. Lou, C. Yap and A.S. Mujumdar, Numerical investigation of laminar impinging jet heat transfer to finned heat sink, Proceedings of ASME:2005 Summer Heat Transfer Conference 2005, Published on CD/ Presented
- Yong, Chan Kok, Islam, Md R., and Mujumdar, A.S., Mechanical means of enhancing drying rates: Effect on drying kinetics and quality, 4<sup>th</sup> Asia-Pacific Drying Conference, ADC05, Kolkata, India, December, 12-14, 2005.



- Saravanan, V., Islam, Md. R., Mujumdar, A.S., Microwave vacuum drying of heat sensitive materials, 4<sup>th</sup> Asia-Pacific Drying Conference, ADC05, Kolkata, India, December, 12-14, 2005.
- Mujumdar, A.S. and Devahastin, S., Recent advances in drying technologies for roots, ISSc Conference, Kuala Lumpur, Malaysia, June 2005.

## 2004

- Suvarnakuta, P., Devahastin, S., Soponronnarit, S. and Mujumdar, A.S., Drying kinetics and heat transfer of porous particles undergoing low-pressure superheated steam drying, 15<sup>th</sup> International Symposium on Transport Phenomena (ISTP15), Bangkok, Thailand, May 9-12, 2004.
- Mujumdar, A.S., Heat transfer under impinging jets, Keynote Lecture, 15<sup>th</sup> International Symposium on Transport Phenomena (ISTP15), Bangkok, Thailand, May 9-12, 2004.
- S. J. Wang, S. Devahastin and A. S. Mujumdar, A Computational Study of Approaches to Improve Mixing under Laminar Confined Impinging Streams, 15<sup>th</sup> International Symposium on Transport Phenomena, Bangkok, Thailand, May 9-13, 2004.
- Wang, S.J., and Mujumdar, A.S., Flow and mixing characteristics of 3D confined turbulent opposing jets: Unequal jets, International Workshop and Symposium on Industrial Drying, (IWSID2004), Mumbai, India, December 20-23, 2004, Topics in Heat & Mass Transfer, edited by G.H. Chen, S. Devahastin and B.N. Thorat.
- Birchal, V.S., Passos, M.L., Wildhagen, G.R.S. and Mujumdar, A.S., The influence of spray dryer operation variables on milk powder quality, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.
- Ogura, H., Yamamoto, T., Otsubo, Y., Ishida, H., Kage, H. and Mujumdar, A.S., Controllability of a chemical heat pump dryer, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.
- Trindade, A.L.G., Costa Jr., E.F., Passos, M.L., and Mujumdar, A.S., Drying of non-Newtonian suspensions in conical spouted beds of inert particles: Model and simulation, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.
- Huang, Lixin, Kumar, Kuruchi, and Mujumdar Arun S., Computational fluid dynamics simulation of spray drying using different models for the falling rate period, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.
- Huang, Lixin, de A. Passos, M.L., Kumar, Kuruchi, and Mujumdar, Arun S., A three-dimensional simulation of a spray dryer with a rotary atomizer, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.
- Markowski, Adam S., and Mujumdar Arun S., Layer-of-protection analysis (LOPA) for industrial drying risk assessment, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.
- Mujumdar, Arun S., Innovation and role of IDS in promoting global R&D effort in drying: A personal perspective, Plenary Lecture, 14<sup>th</sup> International Drying Symposium, (IDS 2004), Sao Paulo, Brazil, August 22-25, 2004.

- Mujumdar, Arun S., Emerging dehydration technologies for preservation of agro-products, Keynote lecture, International Conference on Emerging Technologies in Agricultural and Food Engineering, IIT Kharagpur, Dec. 14-17, 2004.
- Huang, Lixin, Passos, M.L., and Mujumdar, A.S., Comparison of CFD model with experimental results for a spray dryer fitted with a rotating wheel atomizer, International Workshop and Symposium on Industrial Drying, (ISWID2004) Mumbai, India, December, 20-23, 2004.
- So Zhao Ki, Toh Keng Wi and Ravi Kandasamy, Feasibility Study for the Application of Phase Change Material(PCM) in Thermal Management of Portable Electronic Devices, Topics on Heat and Mass Transfer, International Workshop and Symposium on Industrial Drying(IWSID), pp 256-263, Mumbai, India, 2004.
- Poh, Hee Joo, Kumar, Kurichi, Mujumdar Arun S., Impingement heat transfer under pulsed single and multiple turbulent air jets, International Workshop and Symposium on Industrial Drying, IWSID 2004, Mumbai, India, December 21-23, 2004.
- Shi, Yu Ling, Mujumdar, A.S. and Ray, M.B., Effect of large temperature differences on local Nusselt number for turbulent slot impinging jet, International Workshop and Symposium on Industrial Drying, (ISWID2004) Mumbai, India, December, 20-23, 2004.
- Wu, Zhonghua and Mujumdar A.S., Pulse combustion spray drying, International Workshop and Symposium on Industrial Drying, (ISWID2004) Mumbai, India, December, 20-23, 2004.
- Wu, Zhonghua, Mujumdar, A.S., Is Bombardier Beetle design suited for a pulse combustor? Workshop and Symposium on Industrial Drying, (ISWID2004) Mumbai, India, December, 20-23, 2004.
- Wu, Zhonghua, Mujumdar, A.S. and Liu, Xiangdong, Numerical investigation of a pulse combustion spray drying process, CIGR International Conference, Oct. 11-14, 2004, Beijing, P.R. China.
- Mujumdar, Arun S., Global Perspectives on Drying R&D: Needs and Emerging Trends, Plenary lecture, International Workshop and Symposium on Industrial Drying, (ISWID2004) Mumbai, India, December, 20-23, 2004.

## 2003

- Mujumdar, A.S., 2003, Innovation in thermal drying technologies and future R&D needs, Keynote lecture, Proceedings of 14<sup>th</sup> International Symp. on Transport Phenomena, Bali, July 7-9, 2003.
- Mujumdar, A.S. and Alves-Filho, O., Emerging Drying Technologies: Future Trends and R&D Needs, Keynote Lecture, 2<sup>nd</sup> Nordic Drying Conference, Copenhagen, Denmark, June 25-27, 2003 (CD Proceedings).
- Alves-Filho, O. and Mujumdar, A.S., International Drying R&D, Invited lecture, EUDrying 03, Crete, Greece, September 4-5, 2003.
- Mujumdar, A.S. Invited Lecture on Developments in Drying of Grains and Cereals, Regional Seminar on Grain Drying in South Asia, December 1-2, 2003, Durgapur, India ( Australian Project) Also, Chief Guest and Inaugural Address
- Mujumdar, A.S. Recent Advances in Food Dehydration, Keynote Lecture, CoFE, AIChE Conference, San Francisco, USA, November 18-20, 2003.

- Gaikwad, S.B., Wang, W., Chen, G., Thorat, B. and Mujumdar A.S., Fluidized bed drying with microwave heating: Effect of loss factor, NDC'03, 2<sup>nd</sup> Nordic Drying Conference, Copenhagen, Denmark. June 27-27,2003
- Ogura, H. and Mujumdar, A.S., Chemical heat pump drying in the heat storing step, ADC'03, 3<sup>rd</sup> Asia-Pacific Drying Conference, September 1-3, 2003, Bangkok, Thailand.
- Huang, L., Kumar, K. and Mujumdar, A.S., Numerical experiments in a mixed flow spray dryer, NDC'03, 2<sup>nd</sup> Nordic Drying Conference, Copenhagen, Denmark, June 25-27, 2003.
- Huang, L., Kumar, K. and Mujumdar, A.S., Some CFD simulations of spray drying chambers – Effects of operating conditions, ADC'03, 3<sup>rd</sup> Asia-Pacific Drying Conference, September 1-3, 2003, Bangkok, Thailand.
- Islam, M.R., Sablani, S.S., Mujumdar, A.S., Prediction of drying rates using artificial networks, 3<sup>rd</sup> Asia-Pacific Drying Conference, Asian Institute of Technology, Proceedings, pp. 447-455, Sept. 1-3, 2003, Bangkok, Thailand
- Islam, M.R., Ho, J.C., and Mujumdar, A.S., Some numerical simulations with liquid diffusion model and their practical significance, ADC'03, 3<sup>rd</sup> Asia-Pacific Drying Conference, Proceedings, pp. 645-656, September 1-3, 2003, Bangkok, Thailand.
- Yeo, B.K.C., Halwader, M.N.A. and Mujumdar, A.S., Phase change energy storage system: an analysis of cyclic melting and freezing, Proceedings of ISES Solar World Congress, 14-19 June, 2003, Goteborg, Sweden.

## 2002

- Mujumdar, A.S., Current status and future directions of industrial drying, Plenary lecture, Proceedings of Regional Symposium of Chemical Engineering, RSCE 2002, Vol. 1, pp. 11-24, Kuala Lumpur, Malaysia October 28-30, 2002.
- Mujumdar, A.S., Thermal dehydration technologies: Recent progress and future challenges, Endowment lecture, Proceedings of the fifth joint Heat and Mass Transfer conference of Indian Heat and Mass Transfer Society and American Society of Mechanical Engineers, Editors S.K. Saha, S.P. Venkateshan, B.V. S.S.S. Prasad, S.S. Sadhal, pp. 15-26. Kolkata, India, January 4-6, 2002.
- Mujumdar, A.S. and Wang, W., Drying Research – Current States and Future Trends, Proceedings of the 8<sup>th</sup> National Drying Symposium, Harbin, P.R. China, January 8-10, 2002.( In Chinese)
- Hawlader, M.N.A., Chua, K.J., Chou, S.K., Ho, J.C. and Mujumdar, A.S., Heat pump drying of banana slices: Influence of cyclic variation of air temperature on product quality, 7<sup>th</sup> Int. Energy Agency Conf., Beijing, May 19-22, 2002.
- Mujumdar, A.S., A new paradigm for future drying R&D, Keynote Lecture, 13<sup>th</sup> International Drying Symposium (IDS'2002), Beijing, P.R. China, August 27-31, 2002.
- Ho, J.C., Hawlader, M.N.A., Mujumdar, A.S., Suckoordeen, A., Some hydrodynamic characteristics of spouted bed dryer with converging and diverging draft tubes, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, Beijing, August 27-31, 2002.

- Devahastin, S. and Mujumdar A.S., A numerical study of flash drying characteristics of a two-dimensional impinging stream dryer, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, Beijing, August 27-31, 2002.
- Ogura, H., Hamaguchi, N., Kage, H., and Mujumdar A.S., Energy and cost estimation: Application of chemical heat pump dryer to industrial ceramics drying, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, No. 163, Beijing, August 27-31, 2002.
- Li, J., Campbell, G.M. and Mujumdar A.S., Mathematical modeling of air drying of particulate solids – A discrete approach, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, Beijing, August 27-31, 2002.
- Perera, C.O, Ng, F.L, Mujumdar, A.S., The effect of moisture content on the conversion of ergosterol to vitamin D in shiitake mushrooms, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, Beijing, August 27-31, 2002.
- Yuling, Shi, Ray, M.B. and Mujumdar, A.S., Effect of temperature differences on local Nusselt number under turbulent slot jets, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, Beijing, August 27-31, 2002.
- Yuling, Shi, Ray, M.B., and Mujumdar, A.S., Effect of Prandtl number on heat transfer under a turbulent impinging slot jet, Asia Pacific Chemical Engineering Conference, Auckland, New Zealand, October, 2002.
- Yuling, Shi, Ray, M.B. and Mujumdar, A.S., Effect of cross-flow on normal and oblique impingement heat transfer under a turbulent impinging jet, Asia Pacific Chemical engineering Conference, Auckland, New Zealand, October 2002.
- Wang, W., Thorat, B. N., Chen, G., and Mujumdar, A.S., Fluidized-bed drying of heat sensitive porous material with microwave heating, Proceedings of the 13<sup>th</sup> International Drying Symposium, IDS'2002, Beijing, August 27-31, 2002.

## 2001

- Mujumdar, A.S., Food dehydration – Recent developments and future challenges, Keynote Lecture, International Food Engineering Conference, Seoul, Korea, November 2-3, 2001.
- Mujumdar A.S., Innovative drying technologies – Current status and R&D opportunities, Keynote Lecture, Chemcon2001, Annual conference of the Indian Institution of Chemical Engineers, Chennai, December 19-21, 2001.
- Hawlader, M.N.A., Chou, S.K. and Mujumdar, A.S., Inspiring the young to do engineering, 6<sup>th</sup> ASEAN Science and Technology Week, 17-19 September 2001, Brunei.
- Mujumdar, A.S., and Kudra, T., Drying of slurries with particulate media in various gas-particle contactors, Keynote Lecture, Proceedings of 2<sup>nd</sup> Asia-Oceania Drying Conference, Penang, Malaysia, August 2001, pp. 1-25.
- Yuling, S., Ray, M.B. and Mujumdar A.S., A parametric study of impingement heat transfer under a slot jet using CFD, Proceedings of 2<sup>nd</sup> Asia-Oceania Drying Conference, Penang, Malaysia, August 2001, pp. 65-76
- Chen, G. and Mujumdar, A.S., Application of electrical field in dewatering and drying, Proceedings of 2<sup>nd</sup> Asia-Oceania Drying Conference, Penang, Malaysia, August 2001, pp. 217-228.

- Sanga, E.C., Mujumdar, A.S. and Raghavan, G.S.V., Experimental and numerical analysis of intermittent microwave-convection drying, *Proceedings of 2<sup>nd</sup> Asia-Oceania Drying Conference*, Penang, Malaysia, August 2001 pp. 202-216.
- Mujumdar, A.S., International Drying Conferences: A Personal Perspective, Keynote Lecture, Second Inter-American Drying Conference, Boca del Rio, Veracruz, Mexico, July 8-10, 2001.
- Chou, S.K., Chua, K.J., Ho, J.C., Mujumdar, A.S. and Hawlader, M.N.A., Current status and prospects for hybrid heat pump drying technologies, *Proceedings of 1<sup>st</sup> Nordic Drying Conference*, Trondheim, Norway, June 2001, ISBN 82-594-2073-2 (CD ROM).
- Hosseinalipour, S.M., Mujumdar, A.S., A new performance index for opposing jet contactors based on numerical simulation results, *9<sup>th</sup> Annual Conference of the CFD Society of Canada (CFD2001)*, Waterloo, Canada, May 2001.
- Ogura, H., Kage, H. and Mujumdar A.S., Novel convective dryer combined with chemical heat pump, *Proceedings of 1<sup>st</sup> Nordic Drying Conference*, Trondheim, Norway, June 2001, ISBN 82-594-2073-2 (CD ROM).
- Sanga, E.C., Mujumdar, A.S. and Raghavan, G.S.V., Analysis of heat and mass transfer under microwave fields: Numerical simulation and experimental validation, submitted for possible presentation at the *ASAE Annual General Meeting in San Diego, California*, July, 2001.
- Sanga, E.C., Raghavan, G.S.V. and Mujumdar, A.S., Heat and mass transfer during microwave convection drying of composite materials; simulation with incorporation of shrinkage of material, submitted for possible presentation at the *Second Inter-American Drying Conference (IADC2001)*, Vera Cruz, Mexico, July 2001.
- Mujumdar, A.S., Drying research – current status and future trends, *Research Trends*, Trivandrum, India (in press).
- Mujumdar, A.S., Current trends and R&D needs in drying, Plenary Lecture, *1<sup>st</sup> Nordic Drying Conference*, Trondheim, Norway, June 2001.

## 2000

- Sanga, E.C., Mujumdar, A.S. and Raghavan, G.S.V., Microwave-convective drying of discretely non-homogeneous materials: Kinetics and quality attributes, presented at *Microwve 2000: Sustainable Technology for the New Millennium and the Third Chinese Microwave Chemistry Symposium*, Nankai University, Tianjin, P.R. China, May 7-10, 2000.
- Hawlader, M.N.A., Chua, K.J., Chou, S.K., Ho, J.C., Mujumdar, A.S., Heat pump drying of an agricultural product: Influence of cyclic variation of air temperature, *18<sup>th</sup> Conference of ASEAN Confederation of Engineering Organizations*, Hanoi, Vietnam, November 2000.
- Mujumdar, A.S., Innovative drying technologies and trends for the future, Keynote lecture, *Proceedings of the 14<sup>th</sup> Malaysian Conference of Chemical Engineering*, W.R.W. Daud (Ed.) Institute of Chemical Engineering of Malaysia, Malaysia, pp. 193-214, 2000.
- Ogura, H., Ishida, H., Kage, H., Matsuno, Y., Mujumdar, A.S., Experimental study on proposed chemical heat pump dryer using Calcium Oxide/Calcium Hydroxide reaction, *50<sup>th</sup> Canadian Chemical Engineering Conference*, Montreal, Canada, October 2000.

- Sanga, E., Mujumdar, A.S., Raghavan, G.S.V., Heat and mass transfer in non-homogeneous materials under microwave field, *50<sup>th</sup> Canadian Chemical Engineering Conference*, Montreal, Canada, October 2000.
- Prabhu, D., Bi, Z.-Y., Mujumdar, A.S., Enhancement of impinging jet heat transfer by modifying the jet flow field, *50<sup>th</sup> Canadian Chemical Engineering Conference*, Montreal, Canada, October 2000.
- Devahastin, S., Mujumdar, A.S., Hydrodynamic, heat Transfer and mixing characteristics of laminar two-dimensional opposing jets: A computational study, *50<sup>th</sup> Canadian Chemical Engineering Conference*, Montreal, Canada, October 2000.
- Wu, J., Devahastin, S., Mujumdar, A.S., Experimental and numerical studies of an impinging stream dryer configuration, *50<sup>th</sup> Canadian Chemical Engineering Conference*, Montreal, Canada, October 2000.
- Ogura, H., Ishida, H., Kage, H., Matsuno, Y., Mujumdar, A.S., Proposal for a chemical heat pump dryer, *Proceedings of the 33<sup>rd</sup> Autumn Meeting of Society of Chemical Engineers of Japan*, Hamamatsu, Japan, August 2000.
- Pan, Y.-K., Li, J.-G., Ye, W.-H., Mujumdar, A.S., Kudra, T., Drying of a dilute suspension in a vibrated fluidized bed of inert particles, *12<sup>th</sup> International Drying Symposium*, The Netherlands, August 2000.
- Chua, K.J., Mujumdar, A.S., Hawlader, M.N.A., Chou, S.K., Ho, J.C., Heat pump drying of agricultural products – Effects of continuous and stepwise change of drying temperature, *12<sup>th</sup> International Drying Symposium*, The Netherlands, August 2000.
- Ogura, H., Kage, H., Matsuno, Y., Mujumdar, A.S., Studies on a novel chemical heat pump dryer using a gas-solid reaction, *12<sup>th</sup> International Drying Symposium*, The Netherlands, August 2000.
- Passos, M.L., d'Angelo, J.V.H., Mujumdar, A.S., Effect of capillary forces on the drying of non-Newtonian suspensions in fluid beds of inert particles, *12<sup>th</sup> International Drying Symposium*, The Netherlands, August 2000.
- Sanga, E., Mujumdar, A.S., Mujumdar, Raghavan, G.S.V., Experimental results of combined microwave-convection drying of non-homogeneous materials, ASAE Paper no. 006099, *ASAE Annual International Meeting*, Milwaukee, July 2000.
- Ogura, H., Kage, H., Matsuno, Y., Mujumdar, A.S., Application of chemical heat pump technology to industrial drying: A proposal for a new chemical heat pump dryer, *Proceedings of the Symposium on Energy Engineering in the 21<sup>st</sup> Century (SEE2000)*, P. Cheng (Ed.) Begell House, New York, pp. 932-938, 2000.

## 1999

- Mujumdar, A.S., Khillarkar, D.B., Hawlader, M.N.A., Melting of a phase change material in concentric horizontal annuli of arbitrary cross-section, *Proceedings of the Fourth Asia-Pacific Conference on Computational Mechanics*, C.M. Wang, K.H. Lee, K.K. Ang (Eds.) Elsevier, Amsterdam, pp. 637-642, 1999.
- Mujumdar, A.S., Passos, M.L., Drying: Innovative technologies and trends in research and development, Keynote Lecture, *Proceedings of the First Asia-Australia Drying Conference*, Bali, Indonesia, pp. 3-25, 1999.

- Mujumdar, A.S., Devahastin, S., Raghavan, G.S.V., Spouted bed drying: Overview of contributions from McGill University, *Proceedings of the First Asia-Australia Drying Conference*, Bali, Indonesia, pp. 670-681, 1999.
- Anantawaraskul, S., Mujumdar, A.S., Techniques for enhancement of impingement heat and mass transfer rates, *Proceedings of the First Asia-Australia Drying Conference*, Bali, Indonesia, pp. 117-135, 1999.
- Nishimura, A., Deguchi, S., Matsuda, H., Kobayashi, N., Hasatani, M., Mujumdar, A.S., Effects of particle properties on hydrodynamic behaviors and heat transfer characteristics in pulsated fluidized bed, *Proceedings of the Eighth Asia-Pacific Confederation of Chemical Engineering Congress*, Seoul, South Korea, pp. 1741-1744, 1999.

## 1998

- Ogura, H., Matsuno, Y., Mujumdar, A.S., Simulation of hydration/dehydration of CaO/Ca(OH)<sub>2</sub> chemical heat pump reactor for cold/hot heat generation, *Proceedings of the Eleventh International Drying Symposium*, Halkidiki, Greece, pp. 1914-1921, 1998.
- Hosseinalipour, S.M., Devahastin, S., Mujumdar, A.S., Evaluation of a superheated steam impinging stream dryer performance via a numerical approach, *Proceedings of the Eleventh International Drying Symposium*, Halkidiki, Greece, pp. 232-239, 1998.
- Devahastin, S., Mujumdar, A.S., Batch drying of a particulate material in a well-mixed dryer at constant bed temperature, *Proceedings of the Eleventh International Drying Symposium*, Halkidiki, Greece, pp. 456-463, 1998.
- Nishimura, A., Deguchi, S., Matsuda, H., Hasatani, M., Mujumdar, A.S., Enhancement of heat transfer characteristics in a pulsated fluidized bed, *Proceedings of the Thirty Fifth National Heat Transfer Conference*, Nagoya, Japan, pp. 771-772, 1998.
- Mujumdar, A.S., Devahastin, S., Arai, N., Furuhashi, T., Free convection-dominated melting of a phase change material in a horizontal cylindrical annulus, *Proceedings of the Thirty Fifth National Heat Transfer Conference*, Nagoya, Japan, pp. 237-238, 1998.
- Pan, Y.K., Zhao, L.J., Dong, Z.X., Mujumdar, A.S., Kudra, T., Quality Interaction in Thermal Dehydration of Biological Materials, *Drying '98, Vol. B*, Ziti Editions, Greece, pp. 1343-1349, 1998.

## 1996

- Devahastin, S., Mujumdar, A.S., Raghavan, G.S.V., Spouted Bed Research at McGill University, *Proceedings of the International Conference on Food Industry Technology and Energy Applications*, Bangkok, Thailand, pp. 22-29, 1996.
- Devahastin, S., Mujumdar, A.S., Raghavan, G.S.V., Two-Dimensional Finite Element Model for Wheat Drying, *Proceedings of the International Conference on Food Industry Technology and Energy Applications*, Bangkok, Thailand, pp. 59-68, 1996.

- Mujumdar, A.S., Innovation in Drying, *Drying '96, Vol. A*, Lodz Technical University, Poland, pp. 3-13, 1996.
- Beke, J., Mujumdar, A.S., Giroux, M., Some Features of Microwave Drying of Corn and Potato Samples, *Drying '96, Vol. A*, Lodz Technical University, Poland, pp. 888-896, 1996.
- Pan, Y.K., Wu, H., Li, Z.Y., Mujumdar, A.S., Kudra, T., Effect of a Tempering Period on Drying of Carrot in a Vibro-Fluidized Bed, *Drying '96, Vol. A*, Lodz Technical University, Poland, pp. 1016-1022, 1996.

#### 1994

- Etemad, S. Gh., Mujumdar, A.S. Nassef, R., Simultaneously developing flow and forced convection heat transfer of non-Newtonian fluids in equilateral triangle duct with different boundary conditions, *Proceeding of the Seventh International Symposium Transport Phenomena in Manufacturing Processes*, Acapulco, Mexico, pp. 47-52, 1994.
- Kudra, T., Ranganna, B., Raghavan, G.S.V., Mujumdar, A.S., Sablani, S.S., Parametric Studies of an Asymmetrical Two-Dimensional Spouted Bed Dryer with Draft Channel, *Drying' 94, Vol. A*, Gold Coast, Australia, pp. 335-342, 1994.
- Pan, Y.K., Pang, J.Z., Li, Z.Y., Kudra, T., Mujumdar, A.S., Drying of Heat Sensitive Bio-Products on Solid Carriers in Vibrated Fluid Bed, *Drying' 94, Vol. B*, Gold Coast, Australia, pp. 819-824, 1994.
- Grabowski, S., Mujumdar, A.S., Ramaswamy, H.S., Strumillo, C., Osmo-Convective Drying of Grapes in a Fluidized Bed of Sugar and Semolina, *Drying' 94, Vol. B*, Gold Coast, Australia, pp. 921-928, 1994.
- Shiravi, A.H., Mujumdar, A.S., Kubes, G.J., Numerical Study of Heat Transfer and Fluid Flow in Multiple Turbulent Impinging Jets, *Drying' 94, Vol. B*, Gold Coast, Australia, pp. 1343-1350, 1994.
- Hosseinalipour, S.M., Mujumdar, A.S., Flow and Thermal Characteristics of Opposing Turbulent Jets, *Drying' 94, Vol. B*, Gold Coast, Australia, pp. 1369-1378, 1994.

#### 1993

- Mujumdar, A.S., Drying of plantation crops – Potential for application of some novel technologies, Keynote Lecture, *Proceedings of the International Symposium on Energy Perspectives in Plantation Industry*, Connoor, India, pp. 85-99, 1993.
- Tulasidas, T.N., Raghavan, G.S.V., Ramaswamy, H.S., Mujumdar, A.S., Microwave drying of grapes in a multi-mode cavity, *Proceedings of the Twenty Eighth Microwave Symposium*, pp. 217-221, 1993.

#### 1992

- Gong, Z.-X., Zhang, G.-S. and Mujumdar, A.S. Prediction of pore pressure in refractory concrete produced by firing, *Drying'92*, Elsevier, Amsterdam, pp. 1780-1789, 1992.
- Huang, B., Mujumdar, A.S., Prediction of industrial dryer performance using neural network, *Drying'92*, Elsevier, Amsterdam, pp. 1124-1132, 1992.



- Ramamurthy, P., Mujumdar, A.S., van Heiningen, A.P.R., Kubes, G.J., A simple model for superheated steam drying of black liquor films, *Drying'92*, Elsevier, Amsterdam, pp. 1573-1583, 1992.
- Tulasidas, T.N., Kudra, T., Raghavan, G.S.V., Mujumdar, A.S., Effect of bed height on drying of shelled corn in a two-dimensional spouted bed equipped with draft plates, *Drying'92*, pp.1564-1570, 1992.
- Shivhare, U.S., Alvo, P., Raghavan, G.S.V., van de voort, F.R., Mujumdar, A.S., Application of response surface methods in grain drying research, *Drying'92*, Elsevier, Amsterdam, pp.1549-1563, 1992.

#### 1991

- Chen, S.-R., Chen, J.-Y., Mujumdar, A.S. Preliminary study on silkworm cocoons drying, *Drying'91*, Elsevier, Amsterdam, pp 620-627, 1991.
- Mujumdar, A.S., Superheated steam drying of paper, *Proceedings of the International Symposium on Alternate Methods for Paper Drying*, Helsinki, Finland, pp. 313-424, 1991.

#### 1990

- Kumar, P., Mujumdar, A.S., Koran, Z., Effect of microwave drying on paper properties, *Proceedings of the Seventy Sixth Canadian Pulp and Paper Association Annual Meeting*, Canadian Pulp and Paper Association, Montreal, Canada, pp. 161-166, 1990.
- Shivhare, U.S., Raghavan, G.S.V., Mujumdar, A.S., Bosisio, R.G., van de voort, F.R., Equilibrium moisture content for corn in a microwave environment. *ASAE Paper No. 90-6606*, Chicago, December 18-21, 1990.
- Shivhare, U.S., Raghavan, G.S.V., Bosisio, R.G., Mujumdar, A.S., van de voort, F.R., Drying corn in microwave environment with varying initial moisture contents. *ASAE Paper No. 90-6605*, Chicago, December 18-21, 1990.

#### 1989

- Mujumdar, A.S., Aerodynamics and heat transfer in vibrated beds of particles, Keynote Lecture, *Proceedings of the Fourth Australian Conference on Heat and Mass Transfer*, Christchurch, New Zealand, pp. 91-104, 1989.
- David, M., Mujumdar, A.S., Crotogino, R.H., Douglas, W.J.M., Effect of superheated steam drying on paper properties, *Proceedings of the Seventy Fifth Canadian Pulp and Paper Association Annual Meeting*, Canadian Pulp and Paper Association, Montreal, Canada, pp. B233-B237, 1989.
- Malhotra, K., Mujumdar, A.S., Okazaki, M., Particle Flow Patterns in a Mechanically Stirred Two-Dimensional Cylindrical Vessel, *Drying'89*, Hemisphere, Washington, pp. 406-414, 1989
- Kalwar, M.I., Mujumdar, A.S., Raghavan G.S.V., Fanous, M.A., Aerodynamics of Grains in a Large Scale Two-Dimensional Spouted Bed with Draft Plates , *Drying'89*, Hemisphere, Washington, pp. 433-439, 1989.

#### 1988

- Malhotra, K., Mujumdar, A.S., Okazaki, M., Particle Flow Patterns in a Mechanically Stirred Two-Dimensional Cylindrical Vessel, *Sixth International Drying Symposium, Vol. I*, Versailles, France, pp. 23-32, 1988.

- Passos, M.L., Mujumdar, A.S., Raghavan, G.S.V., Spouting and Spout-Fluidization of Dry/Wet Particles in a Two Dimensional Bed, *Sixth International Drying Symposium, Vol. I*, Versailles, France, pp. 127-136, 1988.
- Alikhani, Z., Raghavan, G.S.V., Mujumdar, A.S., Kinetics of Moisture Sorption in a Mixture of Heated Granular Zeolite and Grain, *Sixth International Drying Symposium, Vol. I*, Versailles, France, pp. 257-262, 1988.
- Rozhdestvensky, A.V., Volinets, A.Z., Mujumdar, A.S., Stability of the Phase Front in Sublimation Dehydration: Analysis and Experiments, *Sixth International Drying Symposium, Vol. I*, Versailles, France, pp. 427-434, 1988.
- Erdesz, K., Mujumdar, A.S., Numerical investigation of the phenomenological model of vibrated fluidized bed, *Sixth International Drying Symposium, Vol. II*, Versailles, France, pp. 19-26, 1988.
- Kalwar, M.I., Raghavan, G.S.V., Mujumdar, A.S., Fanous, M.A., Aerodynamics of grains in a large scale two-dimensional spouted bed with draft plates, *Sixth International Drying Symposium, Vol. II*, Versailles, France, pp. 69-76, 1988.
- Zhang, Y.F., Gong, Z.X., Mujumdar, A.S., Two-dimensional finite element model for drying of refractory concrete, *Sixth International Drying Symposium, Vol. II*, Versailles, France, pp. 41-44, 1988.

#### 1987

- Mujumdar, A.S., Erdesz, K., Classification of Vibrated Equipment for Processing of Particulate Materials, *Drying'87*, Hemisphere, Washington, pp. 55-73, 1987.
- Mujumdar, A.S., Erdesz, K., Design Strategy and Guidelines for Continuous Vibrated Bed Dryers, *Drying'87*, Hemisphere, Washington, pp. 74-100, 1987.
- Mujumdar, A.S., Al-Taleb, M., Hasan, M., Evaporation of Liquids from a Wet Stretching Surface into Air, Unsaturated Air and Superheated Solvents, *Drying'87*, Hemisphere, Washington, pp. 261-269, 1987.

#### 1986

- Mujumdar, A.S., Erdesz, K., Ringer, D.U., Hydrodynamic Similarity of Conventional and Vibrated Fluidized Beds, *Drying'86, Vol. 1*, Hemisphere, Washington, pp. 169-176, 1986.
- Mujumdar, A.S., Erdesz, K., Ringer, D.U., Hydrodynamic Similarity of Conventional and Vibrated Fluidized Beds, *Drying'86, Vol. 2*, Hemisphere, Washington, pp. 169-176, 1986.

#### 1985

- Mujumdar, A.S., Malhotra, K., Single Tube Heat Transfer in Aerated Vibrated Beds, *Drying'85*, Hemisphere, Washington, pp. 186-194, 1985.

#### 1984

- Huang, P.-G., Mujumdar, A.S., Douglas, W.J.M., Numerical prediction of flow and heat transfer under a turbulent impinging slot jet with surface motion and cross-Flow, *ASME Paper 84-WA/HT-33*, 1984.

- Loo, E., Mujumdar, A.S., A simulation model for combined impingement and through drying using superheated steam as the drying Medium, *Drying'84*, Hemisphere, Washington, pp. 264-280, 1984.
- Law, L.K.C., Ziaie, B., Malhotra, K., Mujumdar, A.S., Pressure drop and particle circulation studies in modified slot spouted beds, *Drying'84*, Hemisphere, Washington, pp. 286-289, 1984.
- Cui, W.-K., Mujumdar, A.S., A novel steam jet and double-effect evaporation dryer for paper, Parts I and II, *Drying'84*, Hemisphere, Washington, pp. 468-479, 1984.
- Malhotra, K., Mujumdar, A.S., Single tube heat transfer in aerated vibrated beds, *Proceedings of Fourth International Drying Symposium, Vol. 1*, Kyoto International Conference Hall, Kyoto, Japan, pp. 681-689, 1984.
- Mujumdar, A.S., Raghavan, G.S.V., Canadian Research and Development in Drying - A Survey, *Drying'84*, Hemisphere, Washington, pp. 1-10, 1984.
- Mujumdar, A.S., Aerodynamic Characteristics of a Vibrated Bed of Particles, *Drying'84*, Hemisphere, Washington, pp. 178-185, 1984.
- Mujumdar, A.S., Swaminathan, R., Some Aerodynamic Aspects of Spouted Beds of Grains, *Drying'84*, Hemisphere, Washington, pp. 197-204, 1984.
- Mujumdar, A.S., Raghavan, G.S.V., Anderson, K., Characteristics of Asymmetric Two-Dimensional Slot Spouted Beds for Grains, *Drying'84*, Hemisphere, Washington, pp. 205-209, 1984.
- Mujumdar, A.S., Cui, W.K., Drying of Paper - A Summary of Recent Developments, *Drying'84*, Hemisphere, Washington, pp. 292-295, 1984.

## 1982

- Ringer, D.U., Linde, A.G., Mujumdar, A.S., Immersed surface-to-particle heat transfer in a vibro-fluidized bed, *Proceedings of The Third International Drying Symposium*, Wolverhampton, England, pp. 107-114, 1982.
- Pakowski, Z., Mujumdar, A.S., Heat transfer from a horizontal cylinder to a vibrated bed of wet particles, *Proceedings of the Third International Drying Symposium, Vol. 2*, Birmingham, UK, pp. 149-155, 1982.
- Mujumdar, A.S., Huang, P.-G., Douglas, W.J.M., Prediction of heat transfer under a plane turbulent impinging jet including effects of cross-Flow and wall motion, *Drying'82*, Hemisphere, Washington, pp. 91-98, 1982.
- Khalid, M., Mujumdar, A.S., Aerodynamic and drying characteristics of an agitated fluidized bed Dryer, *Drying'82*, Hemisphere, Washington, pp. 61-66, 1982.
- Ringer, D.U., Mujumdar, A.S., Flow and immersed-Surface heat transfer in a vibro-fluidized Bed, *Drying'82*, Hemisphere, Washington, pp. 67-73, 1982.
- Mujumdar, A.S., Huang, P.G., A Transient Simulation Model for Combined Impingement and Through Drying of Permeable Web, *Drying'82*, Hemisphere, Washington, pp. 106-114, 1982.

## 1980

- Mujumdar, A.S., Summary of Discussion Session on Research Needs and Opportunities in Drying, *Drying' 80, Vol. 1: Developments in Drying*, Hemisphere, Washington, pp.1-3, 1980.

- Mujumdar, A.S., Gupta, R., Aerodynamic and Thermal Characteristics of Vibrated Fluid Beds - A Review, *Drying' 80, Vol. 1: Developments in Drying*, Hemisphere, Washington, pp.141-150, 1980.
- Mujumdar, A.S., Li, Y.K., Jog, V., A Simulation Model for Freeze Drying, *Drying' 80, Vol. 1: Developments in Drying*, Hemisphere, Washington, pp. 233-241, 1980.
- Mujumdar, A.S., Obot, N.T., Douglas, W.J.M., Design Correlations for Heat and Mass Transfer Under Various Turbulent Impinging Jet Configurations, *Drying' 80, Vol. 1: Developments in Drying*, Hemisphere, Washington, pp.388-402, 1980.
- Mujumdar, A.S., Saad, N.R., Douglas, W.J.M., Heat Transfer Under Multiple Turbulent Slot Jets Impinging on a Flat Plate, *Drying' 80, Vol. 1: Developments in Drying*, Hemisphere, Washington, pp. 422-430, 1980.
- Mujumdar, A.S., Gupta, R., Leung, P., Drying of Granular Materials in a Vibrated Fluidized Bed, *Drying'80, Vol. 2: Proceedings of the Second International Symposium*, Hemisphere, Washington, pp. 201-207, 1980.
- Mujumdar, A.S., Kroll, K., Bad Hersfeld, F.R., Menon, A.S., Drying Since the Millenniums, *Drying'80, Vol. 2: Proceedings of the Second International Symposium*, Hemisphere, Washington, pp. 485-494, 1980.

#### 1979

- Tovar, J.N., Mujumdar, A.S., Turbulence parameters in an axisymmetric double expansion, *The International Symposium on Papermachine Headboxes*, Montreal, Canada, pp. 54-63, 1979.
- Li, Y.K., Mujumdar, A.S., Prediction of developing turbulent flow in two-dimensional asymmetric channels, *The International Symposium on Papermachine Headboxes*, Montreal, Canada, pp. 64-73, 1979.
- Baliga, B.R., Mujumdar, A.S., On the numerical prediction of confined flows in irregular-shaped domains, *The International Symposium on Papermachine Headboxes*, Montreal, Canada, pp. 74-83, 1979.

#### 1978

- Li, Y.K., Mujumdar, A.S., Douglas W.J.M., Coupled heat and mass transfer under a laminar impinging jet, *Proceedings of The First International Symposium on Drying*, Montreal, Canada, pp175-184, 1978.

### 3. PARTS (CHAPTERS) OF BOOKS (PARTIAL LISTING)

#### 2015

- Mujumdar A.S., Law, C.L., Woo, M.W. Effects on sensory and nutritional properties, in Encyclopedia of Food and Health, Ed. Caballero B., Finglas P. and Toldrá F., 2015, Accepted.
- Jangam S.V., Adhikari B., Mujumdar A.S. Drying | Physical and structural changes, in Encyclopedia of Food and Health, Ed. Caballero B., Finglas P. and Toldrá F., 2015, Accepted.
- Jangam S.V.; Mujumdar A.S. Superheated steam drying, in Drying Technologies for Foods: Fundamentals and Applications, Ed. Nema P.K., Kaur B.J. and Mujumdar A.S., 2015.
- Jangam S.V.; Mujumdar A.S. Advances in food drying, in Drying Technologies for Foods: Fundamentals and Applications, Ed. Nema P.K., Kaur B.J. and Mujumdar A.S., 2015.
- Xiao, H.-W., Mujumdar, A.S. Impingement drying: applications and future trends. In Drying Technologies for Foods: Fundamentals & Applications, Ed. Nema P.K., Kaur B.J. and Mujumdar A.S., 2015.

#### 2014

- Law, C.L., Daud, W.R.W., Mujumdar, A.S. 2014. Emerging Drying Technologies for Agricultural Products. In Introduction to Advanced Food Process Engineering, J.K. Sahu (ed.), pg. 31-77. CRC Press, Boca Raton.
- Law, C.L., Chen, H.H., Mujumdar, A.S. 2014. Food Technologies: Drying. In: Motarjemi Y. (ed.) Encyclopedia of Food Safety, Volume 3, pp. 156-167. Waltham, MA: Academic Press.
- Mujumdar A.S.; Jangam S.V.; Pikon, J. Drying of coal, in Handbook of Industrial Drying, fourth edition, Ed. Mujumdar A.S., 2014.
- Haque N.; Jangam S.V.; Mujumdar A.S. Life cycle assessment of drying systems, in Handbook of Industrial Drying, fourth edition, Ed. Mujumdar A.S., 2014.
- Gong Z.X.; Jangam S.V.; Mujumdar A.S. Simprosys: Software for dryer calculations, in Handbook of Industrial Drying, fourth edition, Ed. Mujumdar A.S., 2014.

#### 2013

- Jangam, S.V., Mujumdar, A.S. Recent Developments in Drying Technologies for Foods, In Advances in Food Process Engineering Research and Applications 2013, Yanniotis, S.; Taoukis, P.; Stoforos, N.G.; Karathanos, V.T. (Eds.), Springer.
- Devahastin, S., Mujumdar, A.S. Superheated steam drying of foods and biomaterials, In Modern Drying Technology - Volume 5, Ed. Tsotsas I. and Mujumdar A.S., 2013, In Press.
- Zhang, M., Mujumdar, A.S. Microwave-assisted drying of foods: Equipment, process and product quality, In Modern Drying Technology - Volume 5, Ed. Tsotsas I. and Mujumdar A.S., 2013, In Press.

## 2012

- Rahman, S.M.A., Mujumdar, A. S. Atmospheric Freeze Drying. Progress in Food Preservation. Rajeev Bhat, Karim AA and Gopinadhan Paliyath., Ed. Blackwell Publishers, Oxford UK, pp 143-160, ISBN- 9780470655856, 2012.

## 2011

- Jangam, S.V., Mujumdar, A.S. Heat pump assisted drying technology – Overview with focus on energy, environment and product quality in Modern Drying Technology - Volume 4, Ed. Tsotsas I. and Mujumdar A.S., 2011.

## 2010

- Liu Ping Fan, Min Zhang and Mujumdar AS , VACUUM FRYING TECHNOLOGY, In: Innovation in Food Engineering-New Techniques and Products 2010, Edited by M L Passos, CRC Press, p411-436;.

## 2009

- Huang, L. X., Mujumdar, A.S. Spray Drying and Its application in Food Processing **Ch 9** in Innovation in Food Engineering, Ed. Passos, M.L., Ribeiro, C.P., CRC press - US, 2009
- Fan, L.P, Zhang, M., Mujumdar, A.S. Vacuum Frying Technology **ch. 13** in Innovation in Food Engineering, Ed. Passos, M.L., Ribeiro, C.P., CRC press - US, 2009
- A.P. Sasmito, E. Birgersson, A. S. Mujumdar, Mathematical Modeling of PEM Fuel Cell Stacks: Thermal Management, book chapter in: Mathematical Modeling of Industrial Transport Processes, edited by P. Xu, Z. Wu and A. S. Mujumdar, *TPR group*, Singapore, **2009**.
- J.C. Kurnia, E. Birgersson, and A.S. Mujumdar, 2009, *Heat and mass transfer in gels*, in *Mathematical Modeling of Industrial Transfer Process*. Xu Peng, Wu Zhonghua, A. S. Mujumdar., pp. 57-68. (available online: <http://serve.me.nus.edu.sg/arun/>)

## 2007 and 2008

- Tsotsas Evangelos, Mujumdar, A.S., Modern Drying Technology: Volume 1: Computational Tools at Different Scales. Wiley-VCH, 2007.
- Tsotsas Evangelos, Mujumdar, A.S., Modern Drying Technology: Volume 2: Experimental Techniques. Wiley-VCH, 2008.
- Law Chung Lim and Mujumdar, A.S., Drying, in Wiley encyclopedia of Industrial Biotechnology, Wiley, 2008.
- Mujumdar, A.S. and Yoshida, H., Electro-osmotic Dewatering of Biomaterials Ch. 5 in Foods and Biomaterials in Electrotechnologies for Extraction from Plants, Ed. E. Vorobiov, Springer, Germany, 2008.
- Chen Xiao Dong and Mujumdar, A.S., Drying Technologies in Food Processing, Wiley&SONS, 2008.

## 2005 and 2006

- Huang Li Xin and Mujumdar, A.S., Spray drying of foods, chapter in Dehydration of Foods, Mujumdar, A.S. and Sablani, S., editors, 2006.
- McCormack, P.Y. and Mujumdar, A.S., Drying, Chapter in Concise Editor of Kirk & Othmer Encyclopedia of Chemical Technology, 5<sup>th</sup> edition, vol.3, Wiley, N. Y. USA. pp 725-730.
- Mujumdar, A.S. and Chung Lim Law, Fluidize bed drying, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Marcel Dekker, NY 2006.
- Law, C.L., Sablani, S. and Mujumdar, A.S., Dimensional analysis, chapter in Handbook of Mathematical Modeling in Bioprocesses, editors, S. Sablani, A.K. Datta and A.S. Mujumdar, CRC Press, Boca Raton, USA, 2006. (submitted)
- Mujumdar, A.S. and Menon, A.S., Drying of Solids: Principles, Classification and Selection of Dryers, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Pakowski, Z. and Mujumdar, A.S., Basic Process Calculations in Drying, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Mujumdar, A.S. and Devahastin, S., Fluidized Bed Drying, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Filkova, I. and Mujumdar, A.S., Industrial Spray Drying Systems, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Pallai, E., Szentmarjay, T. and Mujumdar, A.S., Spouted Bed Drying, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Mujumdar, A.S., Impingement Drying, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Ratti, C. and Mujumdar, A.S., Infrared Drying, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Mujumdar, A.S., Superheated Steam Drying Technologies, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Kudra, T. and Mujumdar, A.S., Special Drying Techniques and Novel Dryers, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Chen, G. and Mujumdar, A.S., Drying of Herbs, Spices, Tea, Coffee and Tobacco, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Sablani, S.S. and Mujumdar, A.S., Drying of Potatoes, Peanuts and Roots, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Pakowski, Z. and Mujumdar, A.S., Drying of Pharmaceutical Products, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.

- Polat, O. and Mujumdar, A.S., Drying of Pulp and Paper, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Mujumdar, A.S., Drying in Mineral Processing, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Chen, G., Yue, P.L. and Mujumdar, A.S., Drying of Sludges, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Hung, J.Y., Wimberger, R.J. and Mujumdar, A.S., Drying of Coated Webs, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Mujumdar, A.S. and Hasan, M., Drying of Polymers, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Jumah, R.Y. and Mujumdar, A.S., Dryer Feeder Systems, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Jumah, R.Y. and Mujumdar, A.S., Dryer Emission Control Systems, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.
- Jumah, R.Y., Mujumdar, A.S. and Raghavan, G.S.V., Control of Industrial Dryers, Handbook of Industrial Drying 3<sup>rd</sup> Enhanced Edition, Ed. A.S. Mujumdar, Taylor & Francis, NY 2006.

## 2004

- Ratti, C. and Mujumdar, A.S., Drying of fruits, Chapter 7 in Processing Fruits, 2<sup>nd</sup> edition, Science and Technology, ed. D.M. Barrett, L. Somogyi, H. Ramaswamy, CRC press, pp. 127-159, 2004.

## 2003

- Islam, M.R., Mujumdar, A.S. Periodic Multi-Mode Batch Drying of Heat-Sensitive Materials – Engineering Applications of the Diffusion Equation, Drying of Products of Biological Origin, Science Publishers, Enfield, New Hampshire, USA, (2003).
- Mujumdar, A.S., Drying of Biotechnological Products: Current Status and New Developments, in Food Science and Food Biotechnology, Ed. G.F. Gutierrez-Lopez and G.V. Barbosa-Canovas, CRC Press, Boca Raton, FL, USA pp 267-278, (2003).
- Ratti, C. and Mujumdar, A.S., Drying of fruits, Chapter for Processing Fruits and Vegetables: Science and Technology, 2<sup>nd</sup> Edition, Vol. I: Fruits: Biology, Principles and Applications, CRC Press, Boca Raton, FL, USA, 2003.
- Mujumdar, A.S. and S. Devahastin, Fluidized Bed Drying, Chapter in Handbook of Fluidization, Editor, W.J. Yang, Taylor & Francis, NY, USA (2003).
- Mujumdar, A.S., Beke, J., Grain Drying Fundamentals, in A. Chakraverty, A.S. Mujumdar, G.S.V. Raghavan, H.S. Ramaswamy (Eds.) *Handbook of Postharvest Technology*, Taylor & Francis, Inc., New York, (2003).



## 2002

- Mujumdar, A.S., Drying: Principles and Practice, in Albright's Chemical Engineer's Handbook, Editor, Lyle Albright, Taylor & Francis, NY, USA, (2002).

## 2001

- Mujumdar A.S., Recent Developments in the Drying Technologies for the Production of Particulate Materials, in A. Levy, H. Kalman (Eds), *Handbook of Conveying and Handling of Particulate Solids*, Elsevier, The Netherlands.
- Mujumdar, A.S., Industrial Drying Technologies: Current Status and Future Trends, pp. 112-125, in Y.H. Mori and K. Ohnishi (Eds.) *Energy and Environment: Technological Challenges for the Future*, Springer Verlag, Tokyo, 2001.

## 2000

- Mujumdar, A.S., Devahastin, S., Fundamental Principles of Drying, pp. 1-22, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Classification and Selection of Industrial Dryers, pp. 23-36, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Dryers for Particulate Solids, Slurries and Sheet-Form Materials, pp. 37-61, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Dryers for Production of Particulate Solids, pp. 63-73, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Devahastin, S., Fluidized Bed Drying Technology, pp. 75-98, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Innovation in Drying Techniques and Future Trends, pp. 99-113, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Superheated Steam Drying – Technology of the Future, pp. 115-138, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Global Drying Research and Development, pp. 139-148, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.
- Mujumdar, A.S., Some Thoughts on R&D, Creativity and Need for Industry-University Interaction, pp. 149-159, in S. Devahastin (Ed.) *Mujumdar's Practical Guide to Industrial Drying*, Exergex, Montreal, Canada, 2000.

## 1999

- Mujumdar, A.S., Devahastin, S., Drying: Terminology and Fundamentals, pp. 5-42, in A.S. Mujumdar, S. Suvachittanont (Eds.) *Developments in Drying, Vol. 1*, Kasetsart University Press, Bangkok, Thailand, 1999.

- Mujumdar, A.S., Devahastin, S., Fluidized Bed Drying, pp. 59-111, in A.S. Mujumdar, S. Suvachittanont (Eds.) *Developments in Drying, Vol. 1*, Kasetsart University Press, Bangkok, Thailand, 1999.
- Sanga, E., Mujumdar, A.S., Raghavan, G.S.V., Microwave Drying: Principles and Applications, pp. 112-141, in A.S. Mujumdar, S. Suvachittanont (Eds.) *Developments in Drying, Vol. 1*, Kasetsart University Press, Bangkok, Thailand, 1999.
- Grabowski, S., Mujumdar, A.S., Solar-Assisted Osmotic Dehydration, pp. 142-178, in A.S. Mujumdar, S. Suvachittanont (Eds.) *Developments in Drying, Vol. 1*, Kasetsart University Press, Bangkok, Thailand, 1999.
- Mujumdar, A.S., Passos, M.L., Drying: Innovative Technologies and Trends in Research and Development, pp. 235-268, in A.S. Mujumdar, S. Suvachittanont (Eds.) *Developments in Drying, Vol. 1*, Kasetsart University Press, Bangkok, Thailand, 1999.

### 1997

- Mujumdar, A.S., Drying Fundamentals, pp. 7-30, in C.G.J. Baker (Ed.) *Industrial Drying of Foods*, Blackie Academic & Professional, London, UK, 1997.
- Mujumdar, A.S., Alterman, D.S., Drying in the Pharmaceutical and Biotech Fields, pp. 235-260, in E. Goldberg (Ed.) *Handbook of Downstream Processing*, Blackie Academic & Professional, London, UK, 1997.
- Jumah, R.Y., Mujumdar, A.S., Raghavan, G.S.V., A Mathematical Model for Constant and Intermittent Batch Drying of Grains in a Novel Rotating Jet Spouted Bed, *Mathematical Modelling and Numerical Techniques in Drying Technology*, Marcel Dekker, New York, pp. 339-380, 1997.
- Hosseinalipour, S.M., Mujumdar, A.S., A Model for Superheated Steam Drying of Particles in an Impinging Stream Dryer, *Mathematical Modelling and Numerical Techniques in Drying Technology*, Marcel Dekker, New York, pp. 537-574, 1997.
- Gong, Z.X., Mujumdar, A.S., Mathematical Modelling of Kiln and On-site Drying of Concrete, *Mathematical Modelling and Numerical Techniques in Drying Technology*, Marcel Dekker, New York, pp. 575-612, 1997.

### 1996

- Mujumdar, A.S., Non-Newtonian Fluid Heat Transfer, pp. 757-761, in G.F. Hewitt, G.L. Shires, Y.V. Polezhaev (Eds.) *International Encyclopaedia of Heat and Mass Transfer*, CRC Press, Boca Raton, 1996.

### 1995

- Mujumdar, A.S., Menon, A.S., Drying of Solids: Principles, Classification and Selection of Dryers, Chapter 1, pp. 1-40, in A.S. Mujumdar (Ed.) *Handbook of Industrial Drying, 2<sup>nd</sup> Edition*, Marcel Dekker, New York, 1995.
- Pakowski, Z., Mujumdar, A.S., Basic Process Calculations in Drying, Chapter 3, pp. 71-112, *ibid*.
- Filkova, I., Mujumdar, A.S., Industrial Spray Drying Systems, Chapter 9, pp. 263-307, *ibid*.
- Pallai, E., Szentmarjay, T., Mujumdar, A.S., Spouted Bed Drying, Chapter 13, pp. 453-488, *ibid*.

- Mujumdar, A.S., Huang, B., Impingement Drying, Chapter 14, pp. 489-502, ibid.
- Kudra, T., Mujumdar, A.S., Impinging Stream Dryers, Chapter 17, pp. 539-566, ibid.
- Ratti, C., Mujumdar, A.S., Infrared Drying, Chapter 18, pp. 567-588, ibid.
- Pakowski, Z., Mujumdar, A.S., Drying of Pharmaceutical Products, Chapter 24, pp. 743-774, ibid.
- Polat, O., Mujumdar, A.S., Drying of Pulp and Paper, Chapter 28, pp. 861-898, ibid.
- Mujumdar, A.S., Drying in Mineral Processing, Chapter 30, pp. 921-930, ibid.
- Hung, J.Y., Wimberger, R.J., Mujumdar, A.S., Drying of Coated Webs, Chapter 33, pp. 1007-1038, ibid.
- Mujumdar, A.S., Hasan, M., Drying of Polymers, Chapter 34, pp. 1039-1070, ibid.
- Mujumdar, A.S., Superheated Steam Drying, Chapter 35, pp. 1071-1086, ibid.
- Kudra, T., Mujumdar, A.S., Special Drying Techniques and Novel Dryers, Chapter 36, pp. 1087-1150, ibid.
- Jumah, R.Y., Mujumdar, A.S., Dryer Feeder Systems, Chapter 37, pp. 1151-1178, ibid.
- Jumah, R.Y., Mujumdar, A.S., Dryer Emission Control Systems, Chapter 38, pp. 1179-1226, ibid.
- Markowski, A., Mujumdar, A.S., Safety Aspects of Industrial Dryers, Chapter 41, pp. 1277-1312, ibid.
- Jumah, R.Y., Mujumdar, A.S., Raghavan, G.S.V., Control of Industrial Dryers, Chapter 43, pp. 1343-1368, ibid.

## 1992

- Mujumdar, A.S., Innovative Industrial Drying Technologies of the Future, pp. 3-20, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Kudra, T., Mujumdar, A.S., Raghavan, G.S.V., Kalwar, M.I., Two-Dimensional Spouted Bed: Some Hydrodynamic, Heat Transfer and Drying Characteristics, pp. 65-85, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Zhide, C., Dexin, W., Jiazhi, L., Mujumdar, A.S., Infrared Thermal Radiation Drying of Wood, pp. 187-196, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Mujumdar, A.S., Superheated Steam Drying of Paper, pp. 208-220, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Timofeev, O., Belski, A., Mujumdar, A.S., Effect of Dryer Fabric Pressure on Multi-Cylinder Drying of Paper, pp. 221-236, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Kaminski, W., Adamiec, J., Grabowski, S., Zbicinski, I., Strumillo, C., Mujumdar, A.S., Application of Degradation Kinetics to Optimization of

Drying Process for Yeasts, pp. 250-266, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.

- Grabowski, S., Mujumdar, A.S., Drying Technologies in Potato Processing, pp. 303-325, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Grabowski, S., Mujumdar, A.S., Solar-Assisted Osmotic Dehydration, pp. 367-404, in A.S. Mujumdar (Ed.) *Drying of Solids*, International Science Publisher, New York, 1992.
- Mujumdar, A.S., Parrouffe, J.M., Dostie, M., Poulin, A., Convective Transport in Infrared Drying, *Drying '92, Part A*, Elsevier, Amsterdam, pp. 695-703, 1992.
- Mujumdar, A.S., Nassikas, A.A., Akritidis, C.B., Close-Cycle Heat Pump Dryer Using Superheated Steam - An Application to Paper Drying, *Drying '92, Part A*, Elsevier, Amsterdam, pp. 1085-1098, 1992.
- Timofeev, O., Bel'Skii, A., Mujumdar, A.S., Soem Preliminary Studies of Impulse Drying of Paper at moderate Temperatures and Pressures, *Drying '92, Part A*, Elsevier, Amsterdam, pp. 1099-1107, 1992.
- Grabowski, S., Mujumdar, A.S., Solar-Assisted Osmotic Dehydration, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1689-1696, 1992.
- Li, S.Q., Gong, Z.X., Mujumdar, A.S., Calculations of the State Variables of Moist Air, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1790-1797, 1992.
- Grabowski, S., Mujumdar, A.S., Ramaswamy, H.S., Strumillo, C., Particle Size Distribution of L-Lysine Dried in Jet- Spouted Bed, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1940-1948, 1992.
- Huang, B., Mujumdar, A.S., Prediction of Industrial Dryer Performance Using Neutral Network, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1124-1132, 1992.
- Shivhare, U.S., Alvo, P., Raghavan, G.S.V., Mujumdar, A.S., Effect of Bed-Height on Drying of Shelled Corn in a Two-Dimensional Spouted Bed Equipped with Draft Plates, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1564-1570, 1992.
- Ramamurthy, P., Mujumdar, A.S., Van Heiningen, A.R.P., Kubes, G.J., A Simple Model for Superheated Steam Drying of Black Liquor Films, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1573-1583, 1992.
- Grabowski, S., Mujumdar, A.S., Solar-Assisted Osmotic Dehydration, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1689-1696, 1992.
- Gong, Z.X., Zhang, G.S., Mujumdar, A.S., Prediction of Pore Pressure in Refractory Concrete Produced by Firing, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1780-1789, 1992.
- Li, S.Q., Gong, Z.X., Mujumdar, A.S., Calculations of the State Variables of Moist Air, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1790-1797, 1992.
- Grabowski, S., Mujumdar, A.S., Ramaswamy, H.S., Strumillo, C., Particle Size Distribution of L-Lysine Dried in Jet- Spouted Bed, *Drying '92, Part B*, Elsevier, Amsterdam, pp. 1940-1948, 1992.

## 1991

- Mujumdar, A.S., Shivhare, U.S., Raghavan, G.S.V., Kudra, T., Van de Voort, F.R., Through-Circulation Microwave Drying of Corn, *Drying'91*, Elsevier, Amsterdam, pp. 414-422, 1991.
- Bond, J.F., Mujumdar, A.S., Van Heiningen, A.R.P., Douglas, W.J.M., An experimental study of the falling rate period of superheated steam impingement drying of paper, *Helsinki Symposium on Alternate Methods of Pulp and Paper Drying*, Helsinki, Finland, pp. 339-356, 1991.

## 1990

- Rozhdestvensky, A.V, Kudra, T., Mujumdar, A.S., Droplet-Hot Surface Interaction and its Potential for Drying of Suspensions, pp. 543-562, in T.N. Veziroglu (Ed.) *Multiphase Transport and Particulate Phenomena, Vol. 1*, Hemisphere, Washington, 1990.
- Kudra, T., Mujumdar, A.S., Melster, V., Impinging Stream Dryers: Principles, Practice and Potential, pp. 17-32, in A.S. Mujumdar (Ed.) *Drying of Solids*, Sarita Prakashan, Meerut, India, 1990.
- Kumar, P., Mujumdar, A.S., Superheated Steam Drying: A State-of-the-Art Survey, pp. 33-71, in A.S. Mujumdar (Ed.) *Drying of Solids*, Sarita Prakashan, Meerut, India, 1990.
- Passos, M.L., Mujumdar, A.S., Raghavan, G.S.V., Spouting and Spout-Fluidization of Dry/Wet Particles in a Two-Dimensional Bed, pp. 211-220, in A.S. Mujumdar (Ed.) *Drying of Solids*, Sarita Prakashan, Meerut, India, 1990.
- Rozhdestvensky, A.V, Volinets, A.Z., Mujumdar, A.S., Stability of the Phase Front in Sublimation Dehydration: Analysis and Experiments, pp. 282-288, in A.S. Mujumdar (Ed.) *Drying of Solids*, Sarita Prakashan, Meerut, India, 1990.
- Chen, Z., Mujumdar, A.S., Bibliography on Drying of Coated Webs, *Drying of solids*, Sarita Prakashan, New Delhi, pp. 289-303, 1990.
- Kumar, P., Mujumdar, A.S., Effect of Drying on Pulp & Paper Properties: A Bibliography, *Drying of solids*, Sarita Prakashan, New Delhi, pp. 304-319, 1990.
- Kumar, P., Mujumdar, A.S., Superheated Steam Drying: A Bibliography, *Drying of solids*, Sarita Prakashan, New Delhi, pp. 320-325, 1990.
- Kalwar, M.I., Raghavan, V.G.S., Mujumdar, A.S., Bibliography on Spouted Bed Technology, *Drying of solids*, Sarita Prakashan, New Delhi, pp. 343-352, 1990.

## 1989

- Erdesz, K., Ringer, D., Mujumdar, A.S., Transport Processes in Vibro-fluidized Beds, pp. 317-358, in L.K. Doraiswamy, A.S. Mujumdar (Eds.) *Transport Processes in Fluidized Particle Systems*, Elsevier, Amsterdam, 1989.
- Polat, S., van Heiningen, A.R.P., Mujumdar, A.S., Douglas, W.J.M., Numerical Study of Turbulent Slot Jets Impinging on a Surface with Throughflow, pp. 508-522, in R.W. Lewis, K. Morgan (Eds.) *Numerical Methods in Thermal Problems, Vol. VI (Part 1)*, pp. 508-522, 1989.

## 1987

- Lawal, A., Mujumdar, A.S., Laminar Duct Flow and Heat Transfer to Purely Viscous Non-Newtonian Fluids, pp. 352-444, in R.A. Mashelkar, A.S. Mujumdar, R. Kamal (Eds.) *Transport Phenomena in Polymeric Systems – 1*, Wiley Eastern, Delhi, 1987.
- Passos, M.L., Mujumdar, A.S., Raghavan, G.S.V., Spouted Beds for Drying: Principles and Design Considerations, pp. 359-397, in A.S. Mujumdar (Ed.) *Advances in Drying, Vol. 4*, Hemisphere, Washington, 1987.
- Mujumdar, A.S., Menon, A.S., Drying of Solids: Principles, Classification, and Selection of Dryers, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 3-46, 1987.
- Pakowski, Z., Mujumdar, A.S., Basic Process Calculations in Drying, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 83-132, 1987.
- Filkova, I., Mujumdar, A.S., Industrial Spray Drying Systems, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 243-294, 1987.
- Pallai, E., Nemeth, J., Mujumdar, A.S., Spouted Bed Drying, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 419-460, 1987.
- Mujumdar, A.S., Impingement Drying, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 461-474, 1987.
- Pakowski, Z., Mujumdar, A.S., Drying of Pharmaceutical Products, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 605-642, 1987.
- Polat, O., Mujumdar, A.S., Drying of Pulp and Paper, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 643-682, 1987.
- Mujumdar, A.S., Drying in Mineral Processing, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 711-720, 1987.
- Mujumdar, A.S., Drying of Coated Webs, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 753-756, 1987.
- Hasan, M., Mujumdar, A.S., Drying of Polymers, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 757-788, 1987.
- Narayan, S.B., Mujumdar, A.S., Fire and Explosion Hazards in Drying Plants, *Handbook of Industrial Drying*, Marcel Dekker, New York, pp. 863-880, 1987.

## 1986

- Cui, W.-K., Mujumdar, A.S., Paper Drying – An Overview of Developments, pp. 142-156, in A.S. Mujumdar (Ed.) *Drying of Solids*, Wiley Eastern, Delhi, 1986.
- Hasan, M., Mujumdar, A.S., Evaporation of Water from a Wet Moving Surface into a Parallel Stream of Air, Humid Air and Superheated Steam, pp. 164-174, in A.S. Mujumdar (Ed.) *Drying of Solids*, Wiley Eastern, Delhi, 1986.
- Mujumdar, A.S., Future Trends in Drying Technology – A Viewpoint, pp. 213-216, in A.S. Mujumdar (Ed.) *Drying of Solids*, Wiley Eastern, Delhi, 1986.
- Hasan, M., Mujumdar, A.S., Industrial Drying of Polymers and Resins: Principles and Dryer Selection Guidelines, pp. 291-316, in A.S. Mujumdar (Ed.) *Drying of Solids*, Wiley Eastern, Delhi, 1986.

**1984**

- Pakowski, Z., Mujumdar, A.S., Strumillo, C., Theory and Application of Vibrated Beds and Vibrated Fluid Beds for Drying Processes, pp. 245-306, in A.S. Mujumdar (Ed.) *Advances in Drying, Vol. 3*, Hemisphere, Washington, 1984.

**1983**

- Gupta, R., Mujumdar, A.S., Recent Developments in Fluidized Bed Drying, pp. 155-192, in A.S. Mujumdar (Ed.) *Advances in Drying, Vol. 2*, Hemisphere, Washington, 1983.

**1978**

- Mujumdar, A.S., Impingement Heat and Mass Transfer, *Short Courses on Industrial Drying*, McGill University, Montreal, Canada, pp. 79-116, 1978.

#### 4. TECHNICAL REPORTS (MAJOR PROJECTS ONLY)

**1997**

- Mujumdar, A.S., Topics in Heat and Mass Transfer, *TEPCO Chair Lecture Series*, Keio University, Yokohama, Japan, 1997.

**1994**

- Woods, B., Husain, H., Mujumdar, A.S., *Techno-Economic Assessment of Potential Superheated Steam Drying Applications in Canada*, Canadian Electrical Association Report 913 U 888, 1994.

**1990**

- Mujumdar, A.S., *Superheated Steam Drying - Principles, Practice and Potential for Use of Electricity*, Canadian Electrical Association Report. 817 U 671, 1990.
- Polat, S., Mujumdar, A.S., van Heiningen, A.R.P., Douglas, W.J.M., *Evaluation of a Numerical Model for Flow and Heat Transfer under Jets Impinging on a Surface with Throughflow*, Postgraduate Research Laboratory Report No. 454, Pulp and Paper Research Institute of Canada, 1990.



## 5. Authored/Edited books and proceedings volumes

### 2015

- Nema P.K., Kaur B.J., Mujumdar A.S. Drying Technologies for Foods: Fundamentals and Applications, 2015, New India Publishing Agency, New Delhi, India.

### 2014

- Mujumdar, A.S. Handbook of Industrial Drying, fourth edition, 2014, CRC Press, Taylor and Francis, Boca Raton, FL.
- Tsotsas, E., Mujumdar, A.S. Modern Drying Technology, Volume 5, 2014, Wiley-VCH, Germany.
- Tsotsas, E., Mujumdar, A.S. Modern Drying Technology, Volume 4, 2014, Wiley-VCH, Germany.

### 2013

- Mujumdar, A.S. Handbook of Industrial Drying (Edition 4), In Press.
- Mujumdar, A.S. Guide to Industrial Drying – updates for 3rd edition, In Press.
- Tsotsas, E., Mujumdar, A.S. Modern Drying Technology (Vol 5), Wiley-VCH-Wiley, Germany, 2013, In Press.
- Passos, M.L., Barrozo, M.A., Mujumdar, A.S. Fluidization Engineering – Practice, ISBN 978-0-9919117-0-7.

### 2012

- Hii, C.L., Jangam, S.V., Ong, S.P., Mujumdar, A.S. Solar Drying: Fundamentals, Applications and Innovations, ISBN: 978-981-07-3336-0.
- Mujumdar, A.S. Perspectives on Innovation, Globalization and R&D by Arun S Mujumdar (Revised Edition), 2012, ISBN - 978-981-07-2216-6. Place of publication: Singapore, Ed. S. Jangam.

### 2011

- Sasmito, A.P., Mujumdar, A.S. Transport Phenomena Models for Polymer Electrolyte Fuel Cell Stacks: Thermal, Water and Gas Management - From Fundamentals to Applications, Lambert Academic Publishing, Germany, 2011, ISBN: 978-3-8443-9063-6
- Jangam, S.V., Law, C.L., Mujumdar, A.S. Drying of Food, Vegetables and Fruits, Volume 2, ISBN: 978-981-08-7985-3.
- Jangam, S.V., Law, C.L., Mujumdar, A.S. Drying of Food, Vegetables and Fruits, Volume 3, ISBN: 978-981-08-9426-9.
- Tsotsas, E., Mujumdar, A.S. Modern Drying Technology (Vol 3), Wiley-VCH-Wiley, Germany, 2011, 430pp, ISBN: 978-3-527-31558-1.
- Tsotsas, E., Mujumdar, A.S. Modern Drying Technology (Vol 4), Wiley-VCH-Wiley, Germany, 2011, 376pp, ISBN: 978-3-527-31559-8.

## 2010

- **Mujumdar, A.S.** Perspectives on Innovation, Globalization and R&D by Arun S. Mujumdar, published in 2010, ISBN: 978-981-08-5757-8, Place of publication: Singapore, Ed. S. Jangam.
- Jangam, S.V., Law, C.L., **Mujumdar, A.S.** Drying of Food, Vegetables and Fruits, Volume 1, ISBN: 978-981-08-6759-1.
- Woo, M.W., **Mujumdar, A.S.**, Daud, W.R.W. Spray Drying Technology, published in 2010, ISBN: 978-981-08-6270-1, Place of publication: Singapore.
- Kandasamy, R., **Mujumdar, A.S.** Thermal Management of Electronic Components-Phase change material based hybrid thermal management of electronic components and systems, 2010, ISBN: 978-3-8383-6087-4, Publisher: Lambert Academic Publishing, Germany.
- Woo, M.W., **Mujumdar, A.S.**, Daud, W.R.W. Spray drying: Operation, Deposition and CFD simulations, 2010, ISBN: 978-3-639-23149-6, Publisher: VDM Publishing House, Germany.
- Poh, H.J., **Mujumdar, A.S.** Mass transport enhancement in proton exchange membrane fuel cell, 2010, ISBN: 978-3-8383-0165-5, Publisher: Lambert Academic Publishing, Germany.
- Wang, X., **Mujumdar, A.S.**, Yap, C. Novel techniques for electronics cooling, (book publication of PhD thesis – finalized and published in **2010**).
- Wu, Z., **Mujumdar, A.S.** Mathematical modeling of pulse, 2010, ISBN: 978-3-8383-2707-5, Publisher: Lambert Academic Publishing, Germany.
- Rahman, S.M.A., **Mujumdar, A.S.** A novel approach on atmospheric freeze drying, 2010, ISBN: 978-3-8383-1605-5, Publisher: Lambert Academic Publishing, Germany

## 2008

- D. Chen and A.S. Mujumdar, Editors, Drying Technologies in Food Processing, Blackwell publishing, Oxford, UK, 2008, 322 pp.
- Tsotsas, E., Mujumdar, A.S. Modern Drying Technology (Vol 2), Wiley-VCH-Wiley, Germany, 2011, 412 pp, ISBN: 978-3-527-31557-4.

## 2007

- E. Tsotsas, and A.S. Mujumdar, Editors, Modern Drying Technology, Vol. 1, VCH-Wiley, Berlin, Germany, 2007. 320 pp
- A.S. Mujumdar, Ed. Handbook of Industrial Drying, Third Enhanced edition, CRC Press, Boca Raton, FL, USA, 1280 pp

## 2006

- Chinese translation of Mujumdar A.S., *Guide to Industrial Drying, Principles, Equipment and New Developments*, Chemical Press, Beijing, 2006.

## 2005

- Mujumdar, A.S., *Guide to Industrial Drying, Principles, Equipment and New Developments*, Colour Publications Pvt. Ltd., Mumbai, India, 2005, 349 pp.

*Translation in Chinese language published by Chemical Publishers, Beijing in July 2005.*

- Kudra, T. and Mujumdar, A.S., Translation in Chinese of the book entitled, "Advanced drying technologies", published by Chemical Publishers, Beijing, 2005.

#### **2004**

- Mujumdar, A.S., Ed, *Dehydration of Products of Biological Origin*, Science Publishers, Enfield, NH, USA.
- Mujumdar A.S., *Guide to Industrial Drying, Principles, Equipment and New Developments*, Colour Publications, Mumbai, India, 2004, 349 pp.

#### **2003**

- Chakraverty, A., Mujumdar, A.S., Raghavan, G.S.V., and Ramaswamy, H.S., Editors, *Handbook of Postharvest Technology*, Marcel Dekker, NY., 884 pp.

#### **2002**

- Kudra, T. and Mujumdar, A.S., *Advanced Drying Technologies*, Marcel Dekker, N.Y., USA, pp 452.
- Mujumdar, A.S. (Ed.) *Drying Technology in Agriculture and Food Sciences*, Oxford/IBH, Delhi, India. Published simultaneously by Science Publisher, Inc., New York.

#### **2000**

- Mujumdar, A.S., Suvachittanont, S. (Eds.) *Developments in Drying, Vol. 2*, Kasetsart University Press, Bangkok, Thailand, 2000.
- *Mujumdar's Practical Guide to Industrial Drying*, edited by S. Devahastin, Exergex, Brossard, Canada (translated into Chinese, Hungarian and Indonesian languages).

#### **1999**

- Mujumdar, A.S., Suvachittanont, S. (Eds.) *Developments in Drying, Vol. 1*, Kasetsart University Press, Bangkok, Thailand, 1999.

#### **1998**

- Pan, Y.-K., Wang, X., Mujumdar, A.S. (Eds.), *Modern Drying Technology*, Chemical Industry Publisher, Beijing, China, 1998 (in Chinese).
- Akritidis, C.B., Marinos-Kouris, D., Saravakos, G.D., Mujumdar, A.S., (Eds.) *Drying '98*, Ziti Editions, Greece, 1998.

#### **1996**

- Turner, I., Mujumdar, A.S. (Eds.), *Mathematical Modelling and Numerical Techniques in Drying Processes*, Marcel Dekker, New York, 1996.
- Mujumdar, A.S., Strumillo, C., Pakowski, Z., (Eds.) *Drying '96*, Lodz Technical University, Poland, 1996.

## 1995

- Mujumdar, A.S. (Ed.), *Handbook of Industrial Drying, 2<sup>nd</sup> Edition*, Marcel Dekker, New York, 1995.

## 1994

- Rudolph, V., Keey, R.B., Mujumdar, A.S., (Eds) *Drying' 94, Vol. A*, Gold Coast, Australia, 1994.
- Rudolph, V., Keey, R.B., Mujumdar, A.S., (Eds) *Drying' 94, Vol. B*, Gold Coast, Australia, 1994.

## 1993

- Mujumdar A.S., Mashelkar, R.A. (Eds.) *Advances in Transport Processes, Vol. IX*, Elsevier, Amsterdam, 1993.

## 1992

- Mujumdar, A.S. (Ed.), *Drying'92*, Elsevier, Amsterdam, 1992.
- Mujumdar, A.S. (Ed.), *Drying of Solids*, International Science Publisher, New York, 1992.
- Mujumdar, A.S., (Ed.) *Advances in Drying, Vol. 5*, Hemisphere, Washington, 1992.

## 1991

- Mujumdar A.S., Filkova, I. (Eds.), *Drying'91*, Elsevier, Amsterdam, 1991.
- Mujumdar, A.S., Mashelkar, R.A. (Eds.), *Advances in Transport Processes, Vol. VIII*, Elsevier, Amsterdam, 1992.

## 1990

- Mujumdar, A.S. (Ed.), *Drying of Solids*, Sarita Prakashan, Meerut, India, 1990.

## 1989

- Mujumdar A.S., Roques, M., (Eds.), *Drying'89*, Hemisphere, Washington, 1989.
- Doraiswamy, L.K., Mujumdar, A.S. (Eds.) *Transport in Fluidized Particle Systems*, Elsevier, Amsterdam, 1989.
- Mashelkar, R.A., Mujumdar, A.S., Kamal, R., (Eds.) *Advances in Transport Processes, Vol. VI: Transport Phenomena in Polymeric Systems-2*, Wiley Eastern Limited, New Delhi, 1989.

## 1988

- Roques, M.A., Mujumdar, A.S., (Eds.), *Sixth International Drying Symposium*, Versailles, France, 1988.

## 1987

- Mashelkar, R.A., Mujumdar, A.S., Kamal, R. (Eds.), *Transport Phenomena in Polymeric Systems – 1*, Wiley Eastern, Delhi, 1987.

- Mujumdar, A.S. (Ed.), *Handbook of Industrial Drying*, Marcel Dekker, New York, 1987.
- Mujumdar, A.S., (Ed.) *Drying '87*, Hemisphere, Washington, 1987.
- Mujumdar, A.S., (Ed.) *Advances in Drying, Vol. 4*, Hemisphere, Washington, 1987.
- Mujumdar, A.S., Mashelkar, R.A., (Eds.), Doraiswamy, L.K., Kulkarni, B.D., (Sp. Eds.) *Advances in Transport Processes, Vol. VII*, Wiley Eastern Limited, New Delhi, 1987.

#### 1986

- Mujumdar, A.S. (Ed.), *Drying'86*, Hemisphere, Washington, 1986.
- Mujumdar, A.S. (Ed.), *Drying of Solids*, Wiley Eastern, Delhi, 1986.
- Mujumdar, A.S., Mashelkar, R.A., (Eds.) *Advances in Transport Processes, Vol. IV*, Wiley Eastern Limited, New Delhi, 1986.

#### 1985

- Toei, R., Mujumdar, A.S., (Eds.) *Drying '85*, Hemisphere, Washington, 1985.

#### 1984

- Mujumdar, A.S. (Ed.) *Drying'84*, Hemisphere, Washington, 1984.
- Mujumdar, A.S., Toei, R., (Eds.) *Proceedings of Fourth International Drying Symposium*, Kyoto International Conference Hall, Japan, 1984.
- Mujumdar, A.S., (Ed.) *Advances in Drying, Vol. 3*, Hemisphere, Washington, 1984.
- Mujumdar, A.S., Mashelkar, R.A., (Eds.) *Advances in Transport Processes, Vol. III*, Wiley Eastern Limited, New Delhi, 1984.

#### 1983

- Mujumdar, A.S., (Ed.) *Advances in Drying, Vol. 2*, Hemisphere, Washington, 1983.

#### 1982

- Mujumdar, A.S. (Ed.) *Drying '82*, Hemisphere, Washington, 1982.
- Mujumdar, A.S., Mashelkar, R.A., (Eds.) *Advances in Transport Processes, Vol. II*, Wiley Eastern Limited, New Delhi, 1982.

#### 1980

- Mujumdar, A.S., (Ed.) *Drying '80: Developments in Drying*, Hemisphere, Washington, 1980.
- Mujumdar, A.S., (Ed.) *Advances in Drying, Vol.1*, Hemisphere, Washington, 1980.
- Mujumdar, A.S., Mashelkar, R.A., (Eds.) *Advances in Transport Processes, Vol. I*, Wiley Eastern Limited, New Delhi, 1980.

**1979**

- Mujumdar, A.S., (Ed.) *The International Symposium on Papermachine Headboxes*, Montreal, Canada, 1979.

**1978**

- Mujumdar, A.S., (Ed.) *Proceedings of the First International Symposium on Drying*, Science Press, Princeton, 1978.
- Mujumdar, A.S., Keey, R.B., (Eds.) *Short Courses on Industrial Drying*, McGill University, Montreal, Canada, 1978.

***This compilation is not complete. Papers published during 1967-78 are not included.***