



Drying Technology

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Call for Papers for Special issue on

Advances in Freeze Drying of Biopharmaceuticals

Deadline for Submission: - 30th September 2021.

Information for Manuscript Submission:

Freeze drying is being used predominantly for biopharmaceutical drug product development. Various aspects of freeze drying are being researched including but not limited to nucleation, ice crystallization, excipient choice, stabilization of proteins and new cell therapies during cryogenic storage as well as during freeze drying.

Drying Technology aims to provide a platform for dissemination of cutting-edge technology, case studies and reviews in the areas of drying in industry. This special issue on freeze drying of biopharmaceuticals will cover the following topics as well as related themes:

- Novel freeze-drying techniques, specifically addressing nucleation control, morphology modification, shortening freeze-drying cycle.
- Various quality issues that may arise during freeze drying, e.g., non-uniform cake appearance, delay or difficulty in moisture removal, crystallization of excipients and degradation of protein, stability of pre- and post-freeze-dried proteins, protein aggregation etc. Every protein is unique and it is rare to directly scale results of one case study to other cases. However, rationale behind choice of analysis technique, and possible mechanisms of interaction of formulation components in a case study can go a long way.
- Recent advances in formulation design, selection of excipient for ultra-high concentration protein formulation in freeze drying.
- Critical reviews or research on development of alternative drying techniques for proteins which are difficult to freeze-dry.
- Novel process analytical technology (PAT) and Quality by Design (QbD) approaches for industrial freeze-drying.
- Modeling, and predictive technologies to overcome heat and mass transfer related issues for reliable scale-up.
- Novel equipment design (controlled nucleation, spray-freeze drying, or other innovative approaches like microwave heating).
- Incorporation of continuous manufacturing aspects in future freeze-drying setup.

The list is not exhaustive. Any case studies, reviews on freeze-drying of biopharmaceutical or model protein will be considered.

PS: Please indicate in cover letter during submission that you are submitting your manuscript for this special issue. All manuscripts accepted for review will be referred following the journal's peer review procedure.

Please Contact:

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