ANSTO User Meeting 2021



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Elucidating the Structures and Behaviour of Therapeutic Delivery Platforms with Non-interfering Techniques

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Preamble: Anton is the Leader of the Applied Chemistry and Translational Biomaterials Group. His research focuses on the development of innovative chemistries, delivery systems and biotechnologies to address challenges in the biomedical, mining, and environmental sectors.

Abstract: Self-assembled polymeric delivery platforms based on colloidal aggregates have promise for the delivery of therapeutics and cells, and their morphology in solution strongly influences their behaviour in a biological context (e.g., cellular uptake). In turn, the composition and microstructure of the individual polymers play a defining role in their self-assembly and the morphology of the resulting colloidal aggregates. Observing the behaviour and precise morphology of these systems in solution using non-interfering techniques allows them to be studied in their native state. In this presentation, Anton will discuss the application of diffusion nuclear magnetic resonance spectroscopy and Synchrotron small-angle X-ray scattering for the elucidation of colloidal aggregate structure and morphology.

Level of Expertise

Expert

Presenter Gender

Man

Pronouns

Which facility did you use for your research

Students Only - Are you interested in AINSE student funding

Do you wish to take part in the Student Poster Slam

Condition of submission

Primary author(s):BLENCOWE, Anton (University of South Australia)Presenter(s):BLENCOWE, Anton (University of South Australia)Session Classification:Chemistry, Soft Matter & Crystallography

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