

Characterising Food Materials and the Case for Extended q Scattering

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When designing food products, it is important to understand and predict structure-function-property relationships within food constituents. This includes knowledge of not only the structure of native materials but also their structural changes across a wide range of length scales brought about by food processing. The inherent complexity of food systems therefore calls for an arsenal of techniques and instrumentation that can access a broad range of dimensions.

The Australian Nuclear Science and Technology Organisation (ANSTO) commenced the 'Food Materials Science Programme' to explore opportunities for the utilisation of the nuclear based methods, including small and ultra-small angle neutron scattering ((U)SANS), in a quest to extend the understanding of complex food systems. This presentation will highlight the role of (U)SANS in the context of broader materials characterisation methods, using several examples¹⁻⁸.

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