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# Imaging Chemical Dynamics by Liquid Cell (Scanning) Transmission Electron Microscopy

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# **Message from the Guest Editors**

Advances in both experimental hardware and imaging methodologies have led to a rapid expansion of the use of in situ liquid stages for high-resolution (scanning) transmission electron microscopy observations of dynamic processes that are fundamentally important to chemistry, structural biology and materials science. New advances in dose control and the use of artificial intelligence to analyse the large and complex datasets generated by liquid cell experiments are promising to expand the frontiers of our understanding of liquid systems/interfaces in wide-ranging applied technologies in the medical sciences, the environment and clean renewable energy. The purpose of this Special Issue is to provide a forum for scientists to share the current state of the art in liquid cell microscopy and to define a pathway for future developments. Articles dealing with all aspects of the theory, practice and applications of liquid cell microscopy are welcome.













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# **Message from the Editor-in-Chief**

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