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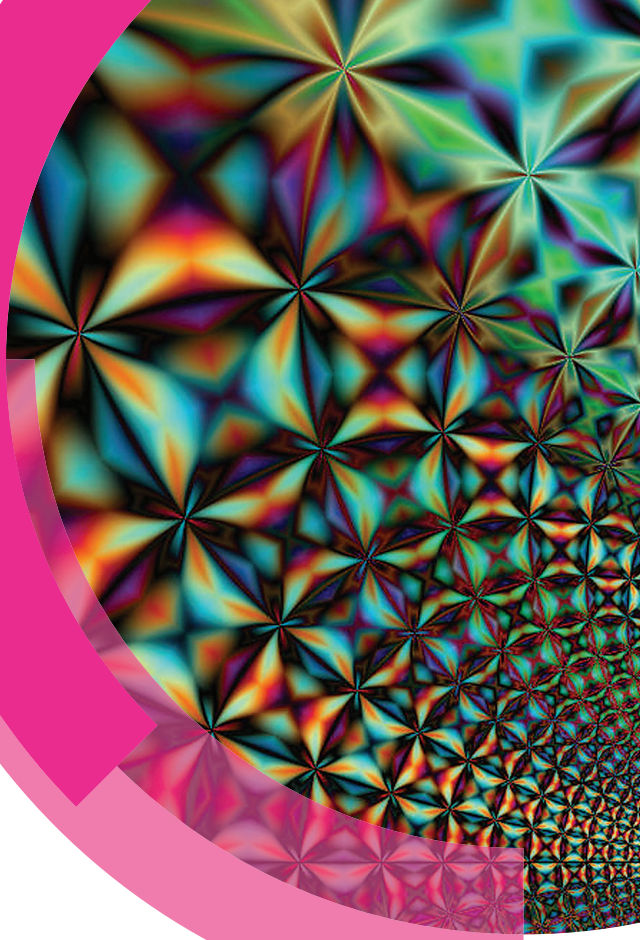

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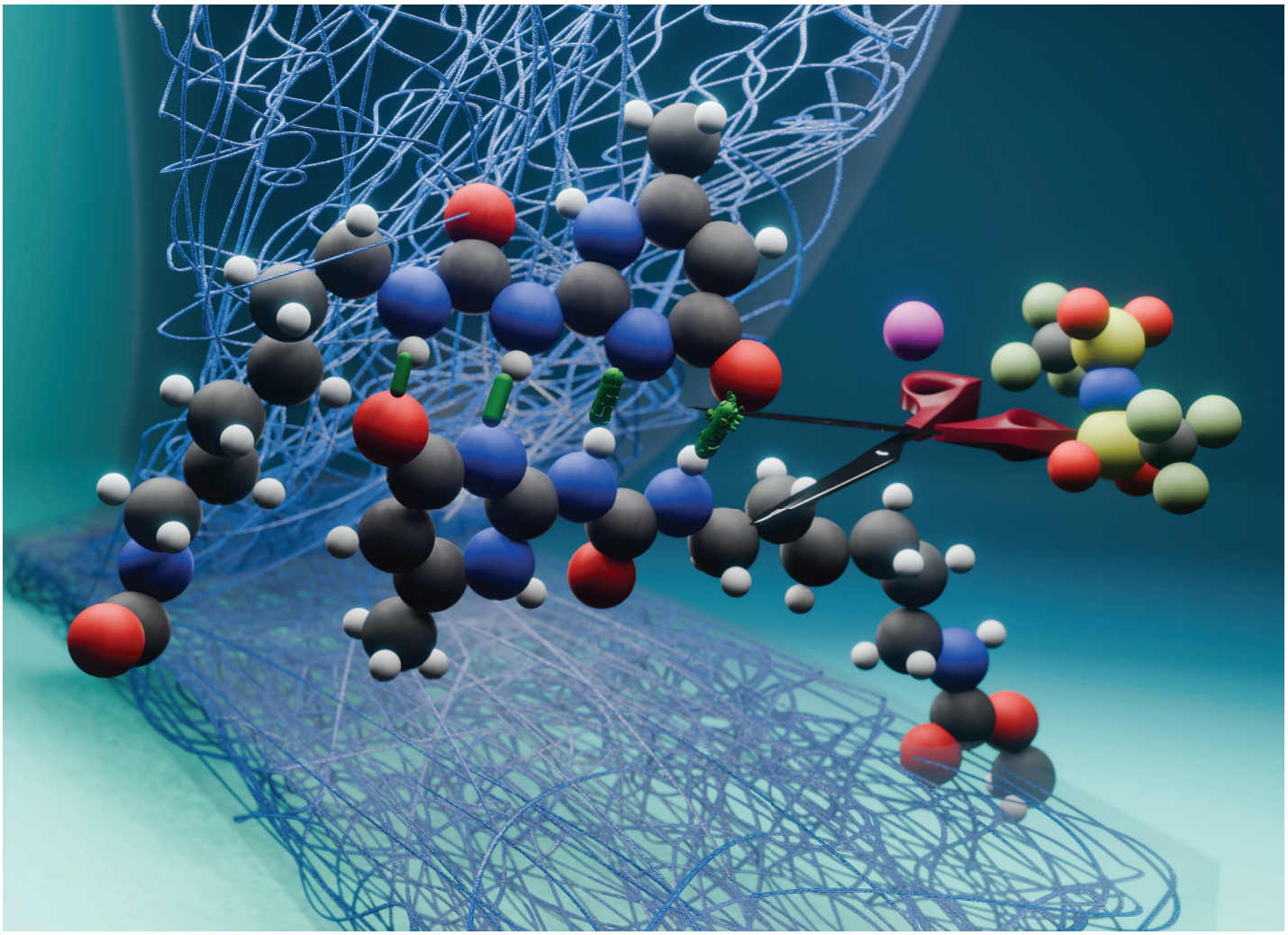
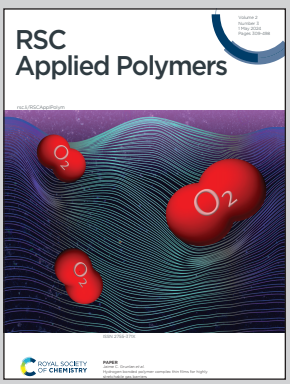


Showcasing research from the Ångström Advanced Battery Centre, Department of Chemistry – Ångström Laboratory, Uppsala university, Sweden.

Inherent limitations of the hydrogen-bonding UPy motif as self-healing functionality for polymer electrolytes

The inclusion of hydrogen-bonding ureido pyrimidinone (UPy) groups is an effective means of introducing dynamically cross-linking and self-healing capabilities in polymer materials. These properties are highly desirable also for next-generation electrolyte materials for energy storage applications. However, we demonstrate that the addition of a high concentration of ions causes the hydrogen-bonding network to be disrupted by interactions with the ions, thereby cancelling out the effect of the UPy groups on the mechanical properties of the material and rendering the material mechanically unsuitable for electrolyte use.

As featured in:



See Jonas Mindemark *et al.*, *RSC Appl. Polym.*, 2024, **2**, 374.

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