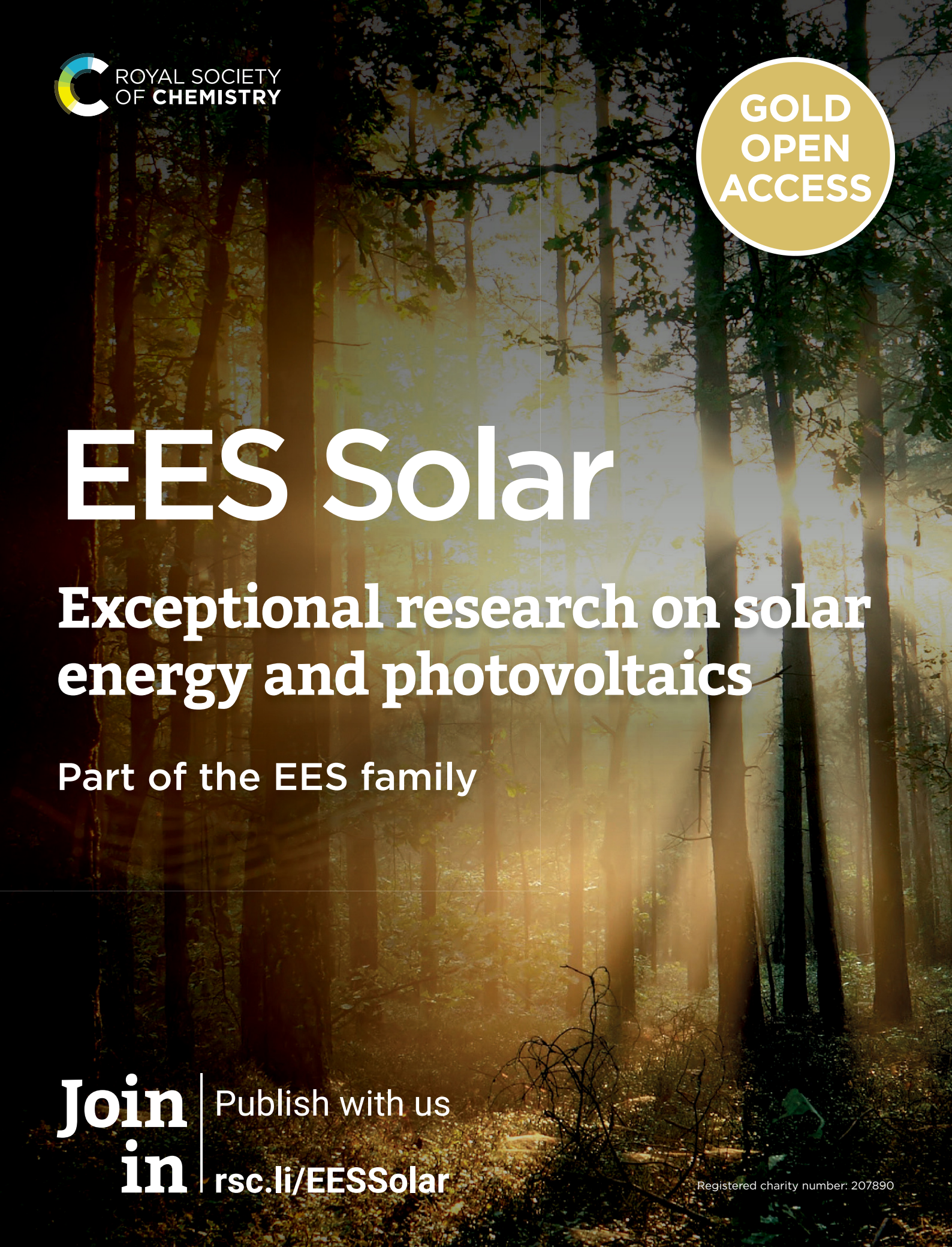
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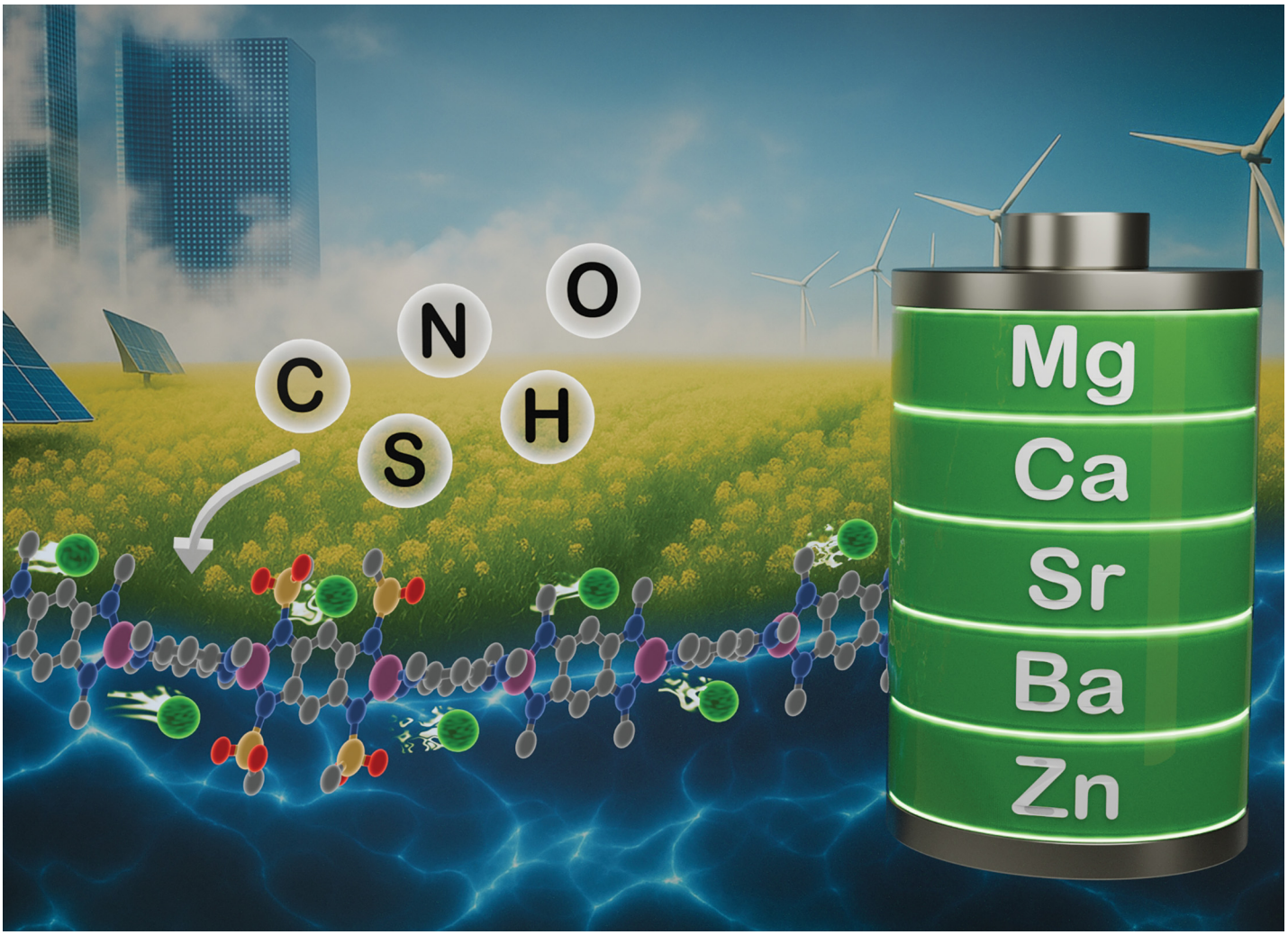

Showcasing research from Professor Alexandru Vlad's laboratory, School of Chemistry, University of UCLouvain, Louvain-la-Neuve, Belgium.

Amorphous coordination polymers for versatile Mg^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, and Zn^{2+} cation storage

Developing sustainable, high-energy-density batteries is key for future energy storage. Divalent metal-ion systems, especially Mg and Ca, promise high volumetric capacity, low cost, safety, and sustainability, but progress is limited by the lack of high-performance positive electrodes. We introduce amorphous coordination polymers as electrodes for Mg, Ca, Sr, Ba, and Zn storage, achieving high voltages, stable cycling, and minimal hysteresis without solvent or anion co-intercalation. Their disordered frameworks weaken cation binding and enable fast diffusion, offering abundant, non-toxic materials for next-generation sustainable batteries.

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As featured in:

See Jan Bitenc, Jiande Wang, Alexandre Ponrouch, Alexandru Vlad *et al.*, *Energy Environ. Sci.*, 2025, **18**, 9114.

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