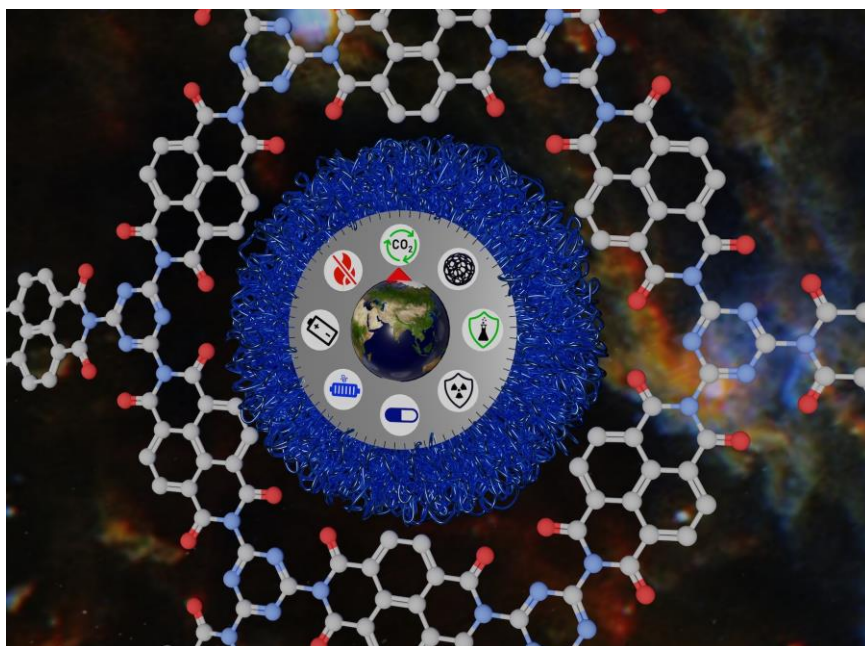


Functional Materials Against Global Challenges: CO₂ capture, conversion and beyond

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In the quest for new materials to help to solve global challenges, we have focused our efforts in recent years on the production of functional supramolecular¹ and polymeric materials.^{2, 3} The focus in this presentation will be on various strategies we are employing to tune both structure and function in these materials.



Tuning structure and properties in novel materials for targeted function and application

After introducing the specific class of porous materials (conjugated microporous polymers, CMPs) used in my research group,⁴ rules to design these materials, and consequently tune their properties and functionality, will be introduced.⁵ The versatility of these materials will be shown in their application in the capture and metal-free conversion of CO₂,⁶ energy storage,⁷ and for the removal of harmful pollutants from water.⁸ These materials present an exciting platform to address global challenges we currently face.

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