

# Environmental Science journals

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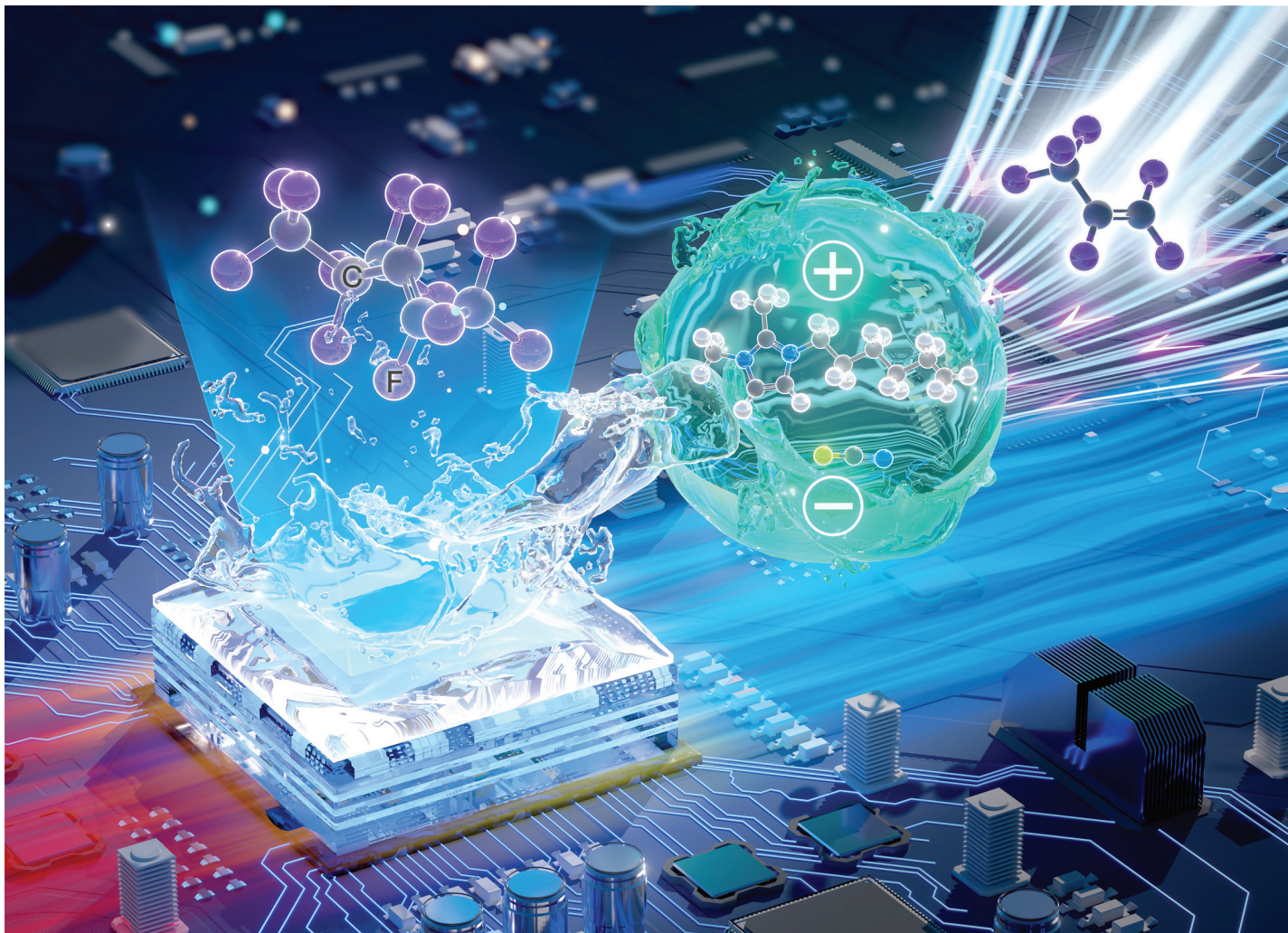
Harnessing the power of interdisciplinary  
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Fundamental questions  
Elemental answers







**Showcasing research from Associate Professor Yanyan Diao's laboratory, Institute of Process Engineering, Chinese Academy of Sciences, Beijing, China.**

Efficient dimerization of perfluoroolefin with strong nucleophilic ionic liquid catalysts by adjusting the interaction of anions and cations

The imidazole-based ionic liquids with good solubility and nucleophilicity were synthesized and used in the hexafluoropropylene dimerization for the first time. Compared with the traditional alkali metal salt composite catalyst system, the catalytic activity of the strong nucleophilic ionic liquid 1-hexyl-2,3-dimethylimidazole thiocyanate was doubled. More importantly, this ionic liquid catalyst system has not the problems of environmental unfriendliness and difficult recycling of traditional catalyst.

**As featured in:**



See Xianglei Meng, Yuting Song, Yanyan Diao *et al.*, *Green Chem.*, 2023, 25, 5438.