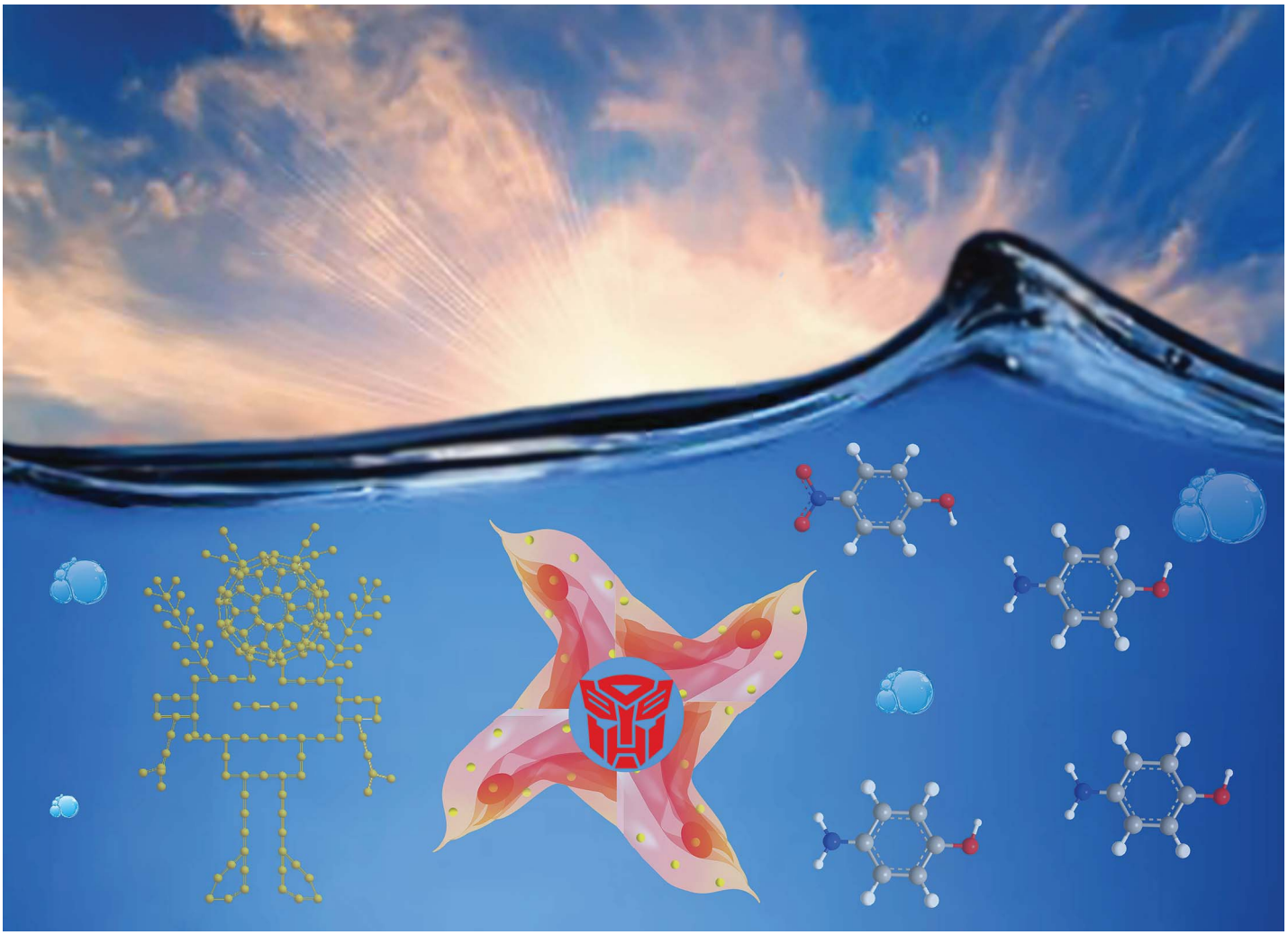

Showcasing research from Professor XiuJun (James) Li's laboratory, Department of Chemistry & Biochemistry, University of Texas at El Paso, Texas, USA.

Smart paper transformer: new insight for enhanced catalytic efficiency and reusability of noble metal nanocatalysts

Although noble metal nanocatalysts show superior performance to conventional catalysts, they can be problematic when balancing catalytic efficiency and reusability. To address this dilemma, we for the first time developed a smart paper transformer (s-PAT) to support nanocatalysts, based on the facile phase conversion between paper and pulp. The pulp phase was used to maintain high catalytic efficiency and the transformation to paper enabled their high reusability. Additionally, a novel chromatography paper-supported Au nanosponge catalyst as an example of paper transformers was developed to demonstrate high-efficiency and high-reusability environmental catalysis.

As featured in:

See XiuJun Li *et al.*, *Chem. Sci.*, 2020, **11**, 2915.

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