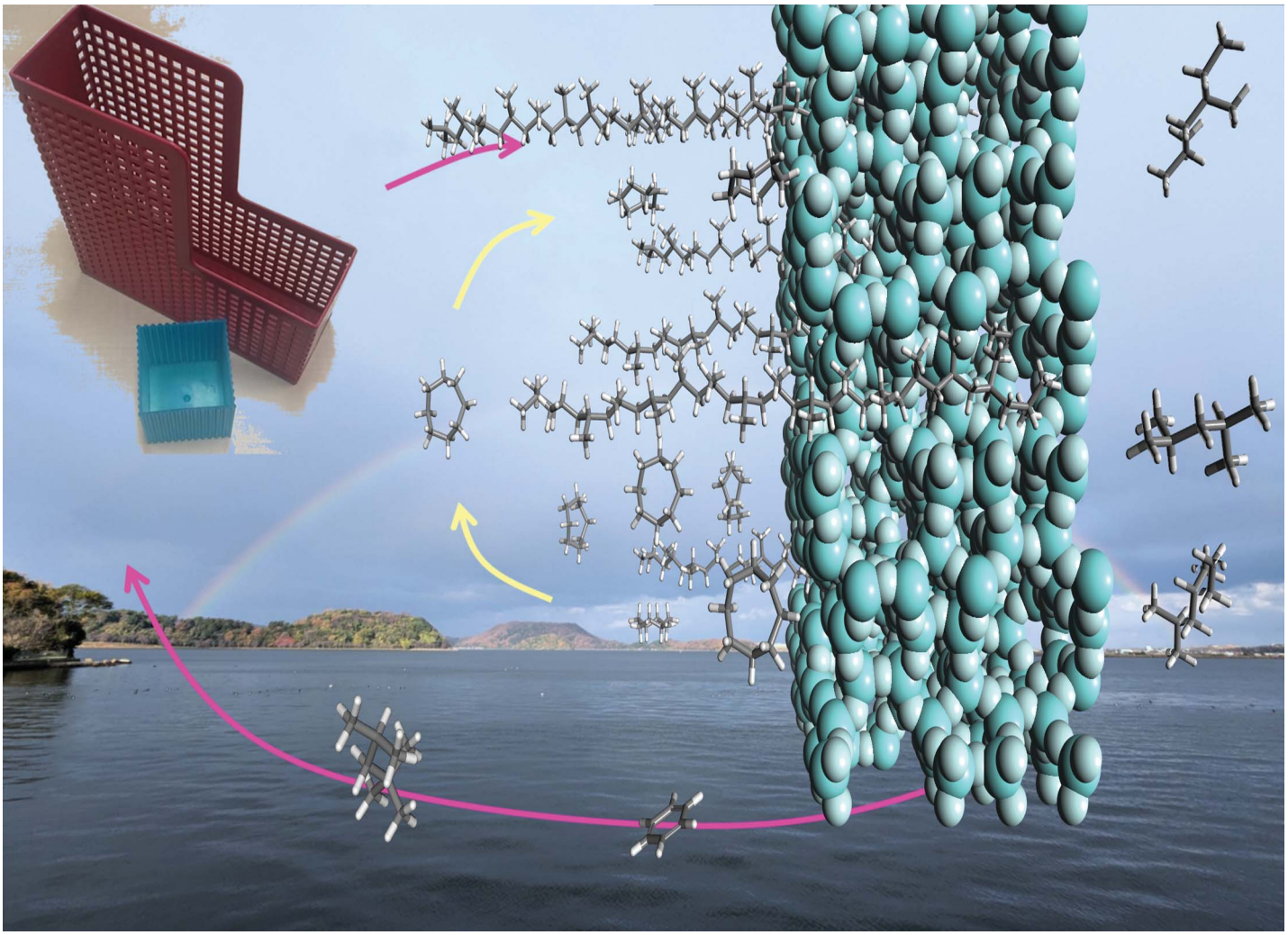

Showcasing research from Professor Katada's laboratory, Center for Research on Green Sustainable Chemistry, Tottori University, Japan.

Shape selective cracking of polypropylene on an H-MFI type zeolite catalyst with recovery of cyclooctane solvent

In the photo, you can see a rainbow over Koyama-ike lake near Tottori University. Tottori University has developed the first method to use shape selectivity to crack polymers while recovering the solvent. The polymers enter the micropores of zeolite and are cracked into naphtha, a raw material for plastics, which is then recycled. The solvent helps transport the polymer and heat, but the solvent with bulky molecular shape does not enter the micropores and is recovered, creating another cycle. This will be a rainbow bridge between waste and resources.

As featured in:

See Naonobu Katada *et al.*, *RSC. Sustainability.*, 2025, **3**, 890.

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