



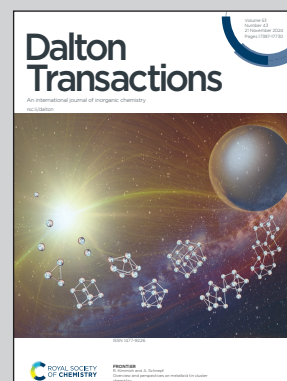
**Showcasing research from Dr. Lakshi Saikia's laboratory, Advanced Material Group, Material Science & Technology Division, CSIR NEIST, Jorhat 785006, Assam, India.**

**Ligand-triggered antenna effect and dual emissions in Eu(III) MOF and its application in multi-mode sensing of 1,4-dioxane**

This work presents the synthesis of a water-dispersible Eu(III) metal-organic framework (MOF) with functionality depicted as a crab in sea. The MOF demonstrates high selectivity for detecting the carcinogenic industrial solvent 1,4-dioxane. Detection is visually evident through a distinct colorimetric shift in the MOF solution, changing from pink to blue. This remarkable sensitivity offers significant potential for the development of portable devices for real-time, onsite monitoring of industrial water contamination.

Image generated with Google Gemini.

**As featured in:**



See Lakshi Saikia *et al.*, *Dalton Trans.*, 2024, **53**, 17480.