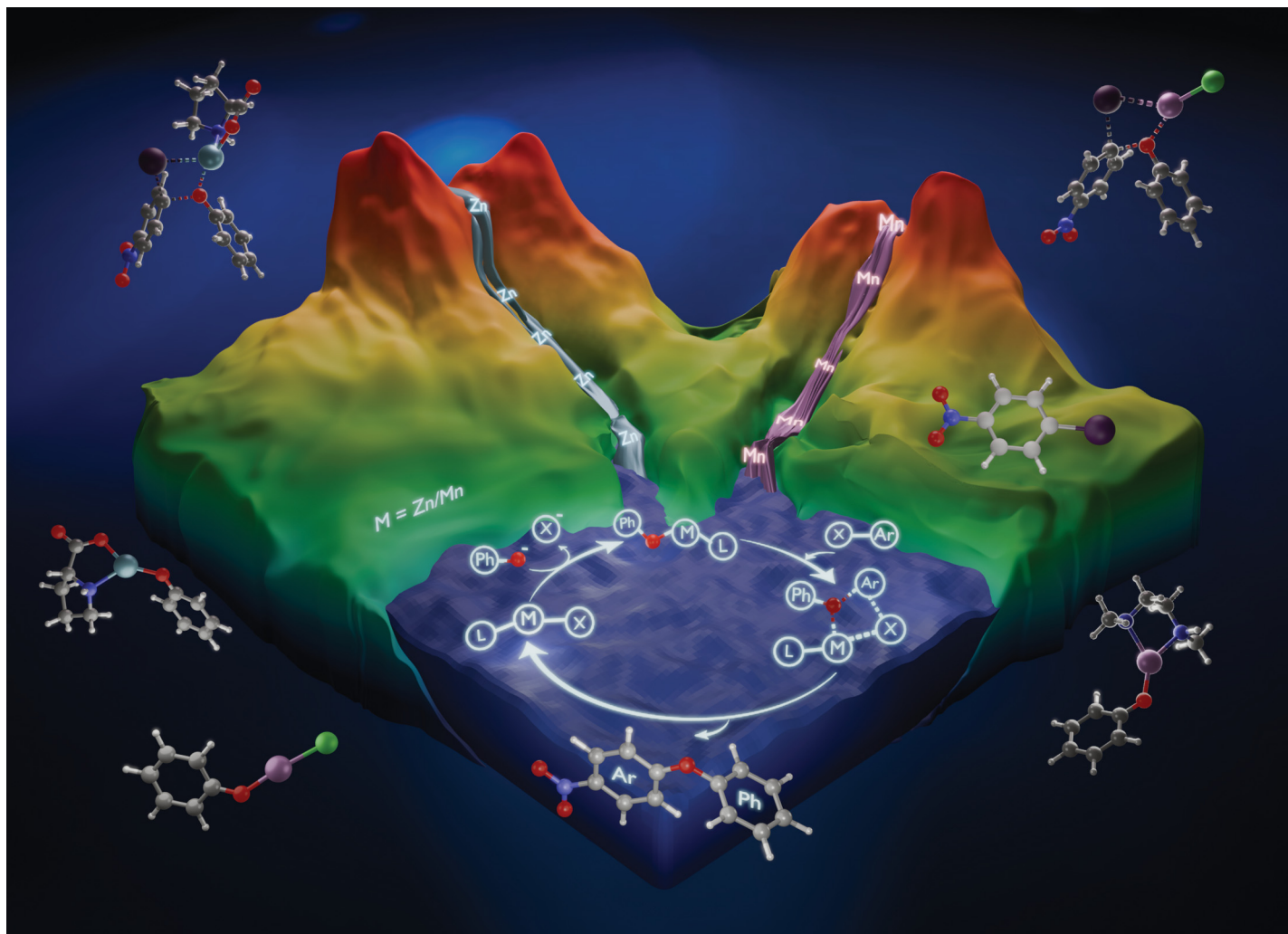




Showcasing research from Dr Vibin Ipe Thomas's laboratory, Department of Chemistry, CMS College Kottayam (Autonomous), Mahatma Gandhi University, Kerala, India- 686001.

Unveiling the molecular mechanism of Mn and Zn-catalyzed Ullmann-type C-O cross-coupling reactions

The study elucidates a common molecular mechanism for both Mn and Zn-catalyzed Ullmann type C-O cross-coupling reaction. This mechanism follows a redox-neutral pathway proceeding through σ -bond metathesis, attributed to their stable electronic configurations (d^5 and d^{10}) and the higher oxidation states of the catalytic metal centers. The catalytic mechanism remains invariant regardless of the choice of metal catalyst, ligand, or base used in the reaction.

As featured in:



See Vibin Ipe Thomas *et al.*,
Phys. Chem. Chem. Phys.,
2023, 25, 2948.