

Environmental Science: Atmospheres

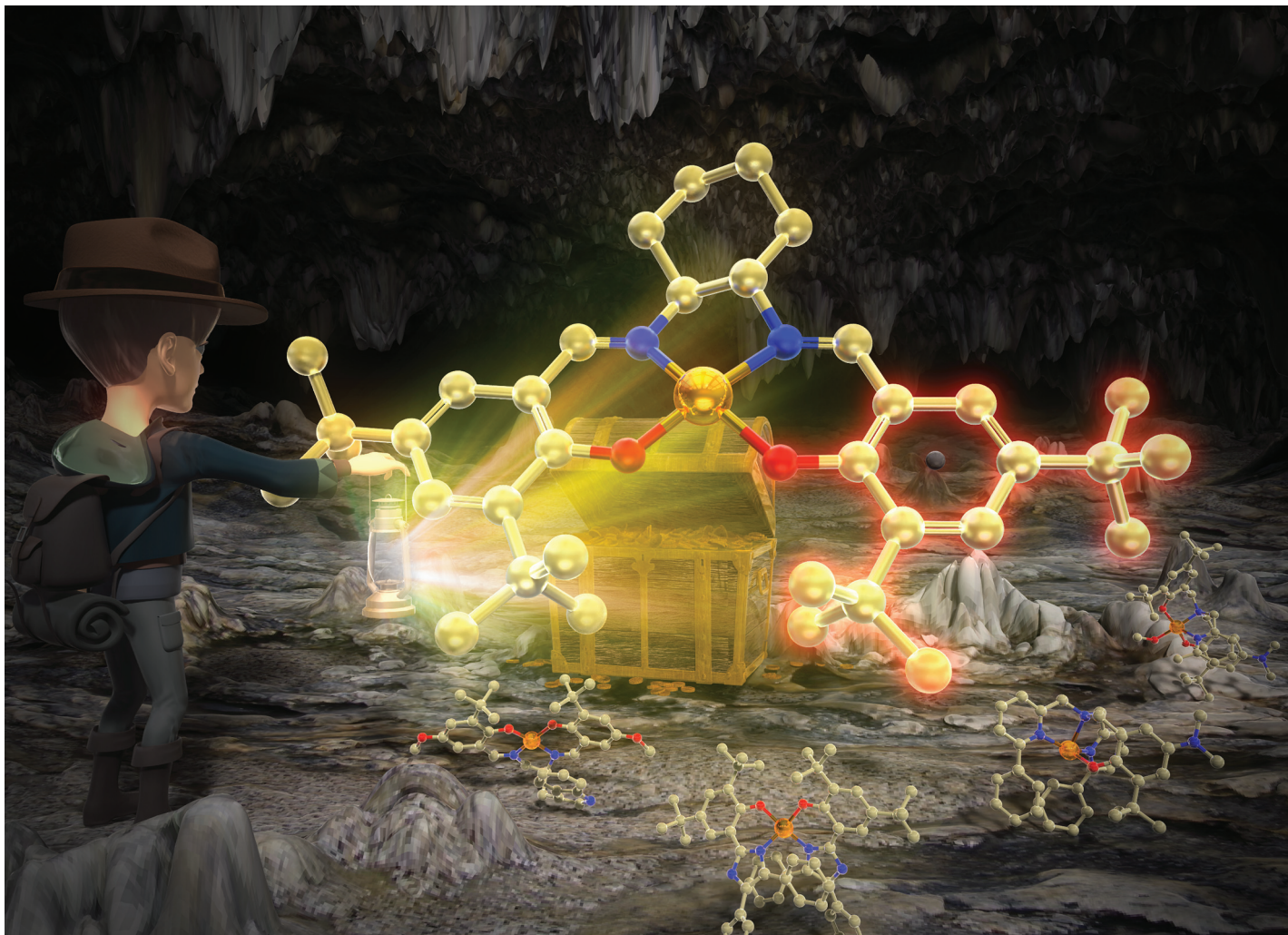
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Fundamental questions
Elemental answers





Showcasing collaborative research from T. Takeyama at Department of Applied Chemistry, Sanyo-Onoda City University, Yamaguchi, Japan and Y. Shimazaki at College of Science, Ibaraki University, Mito, Japan.

Diversity of oxidation state in copper complexes with phenolate ligands

Over the past several decades, the redox chemistry of Cu-phenolate complexes has been great progress, and finally discovered various treasures, such as Cu^{II}-phenoxyl radical complexes, Cu^{III}-phenolate, the phenoxyl radical binding Cu^I complexes and Cu^{IV}-phenolate complexes in the formal oxidation state. This Perspective discusses these treasures, that is, new aspects of the properties and reactivities of various Cu-phenolate and Cu-phenoxyl radical complexes, focusing on the correlation between geometric and electronic structures.

As featured in:



See Tomoyuki Takeyama and Yuichi Shimazaki, *Dalton Trans.*, 2024, **53**, 3911.