



Showcasing collaborative research from T. Takeyama, K. Takao at Laboratory for Zero-Carbon Energy, Institute of Innovative Research, Tokyo Institute of Technology, S. Iwatsuki at Department of Chemistry, Konan University, Kobe, Japan, S. Tsushima at Institute of Resource Ecology, Helmholtz-Zentrum Dresden-Rossendorf (HZDR), Dresden, Germany and TokyoTech World Research Hub Initiative (WRHI), Japan.

Synthesis and characterization of a uranyl(VI) complex with 2,6-pyridine-bis(methylaminophenolato) and its ligand-centred aerobic oxidation mechanism to a diimino derivative

A uranyl(VI) complex with bis(o-phenolateaminomethyl)pyridine ligand was synthesized and structurally characterized. Under the ambient atmosphere, both aminomethyl groups of this complex were converted to azomethine ones in pyridine or DMSO solutions. This stepwise oxidation is initiated by hydrogen atom transfer from one of the amino groups in the parent complex to approaching O₂ molecule to finally afford a uranyl(VI) complex with bis(o-phenolateiminomethyl)pyridine ligand.

As featured in:



See Tomoyuki Takeyama, Koichiro Takao *et al.*, *Dalton Trans.*, 2022, **51**, 6576.