

Showcasing research from Prof. Laskin's and Dr. Warneke's laboratories at Purdue University (USA) and Leipzig University (Germany).

Spontaneous ligand loss by soft landed [Ni(bpy)₃]²⁺ ions on perfluorinated self-assembled monolayer surfaces

Soft landing of mass-selected ions offers the first insights into the degradation of transition metal complexes at interfaces. When nickel-bipyridine complexes are deposited on surfaces, they spontaneously lose one or two ligands. These losses are driven by structural changes resulting from surface interactions and electron transfer from the surface, which reduces the complex. Co-depositing these complexes with stable anions inhibits ligand loss by minimizing cation-surface interactions and preventing charge reduction of the cation.



