**Mixed-ligand platinum and palladium complexes based on dinitrogen chelating ligands and a pyridine bearing the nitronylnitroxide radical.**

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Inorganic Chemistry Communications (2007), 10(11), 1355-1359.

## Abstract

Novel cationic mixed-ligand palladium and platinum complexes based on the chelating ligands 4,7-dimethyl-1,10-phenanthroline and 2,2'-bipyridine with a pyridine bearing the nitronylnitroxide radical are reported. The synthesis, X-ray crystal structures and magnetic properties of the two complexes [Pd(4,7-dimethyl-1,10-phenanthroline)(NIT-pPy)2](PF6)2. DMF and [Pt(2,2'-bipyridine-N,N')(NIT-pPy)2](PF6)2·0.25H2O, (where NIT-pPy = 2-(p-pyridyl)-4,4,5,5-tetramethylimidazoline-1-oxyl-3-oxide) are described. The two metal complexes show a strained square planar geometry. Short intermol. contacts take place through the nitroxide groups and weak intermol. antiferromagnetic interactions are dominant at low temp.