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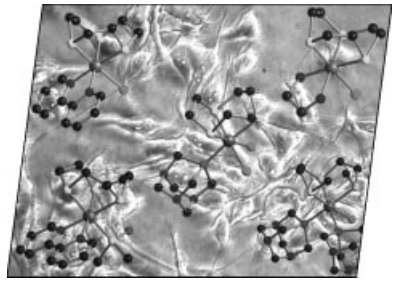
COVER PICTURE

The cover picture shows the X-ray structures of some new half-sandwich (or piano-stool) Ru^{II}-[9]aneS_3 complexes ([9]aneS_3 = 1,3,7-trithiacyclononane) against a background of cells in culture. The complexes of the type $[RuCl_2(L)([9]aneS_3)]$, $[RuCl(L)_2([9]aneS_3)][CF_3SO_3]$, and $[Ru(dmsoS)(L)_2([9]aneS_3)][CF_3SO_3]_2$ (L = 1,3,5-triaza-7-phosphaadamantane, PTA; $(L)_2$ = 2 PTA or chelating N-ligand) were prepared from Ru-[9]aneS_3-dmso precursors and structurally characterized, both in solution and in the solid state. Some of them are analogues of known cytotoxic half-sandwich $Ru^{II}(\eta^6$-arene) organometallic compounds of the type $[RuCl(en)(\eta^6$-arene)$][PF_6]$ and $[RuCl_2(PTA)(\eta^6$-arene)], in which the aromatic fragment is replaced by the sulfur macrocycle [9]aneS_3 while the rest of the coordination sphere is left unchanged. Preliminary in vitro tests performed on some complexes against the mouse adenocarcinoma cancer cell line (TS/A) and the human mammary normal cell line (HBL-100) showed that, in general, the Ru-[9]aneS_3 compounds have a cytotoxicity comparable to that of the corresponding organometallic analogues. These results suggest that the aromatic fragment of the piano-stool Ru^{II} compounds is not an essential feature for the in vitro anticancer activity, and it might be effectively replaced by another face-capping ligand with a low steric demand, such as [9]aneS_3. Details are discussed in the article by E. Alessio et al. on p. 3423 ff. This work was performed within the framework of COST Action D20, a collaboration between WG 0001 and WG 0005.

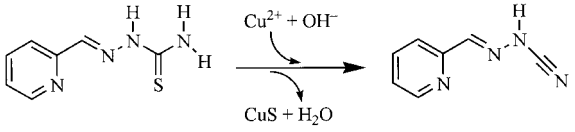


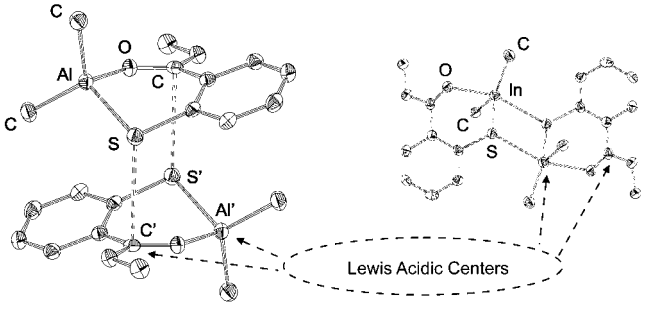
MICROREVIEW

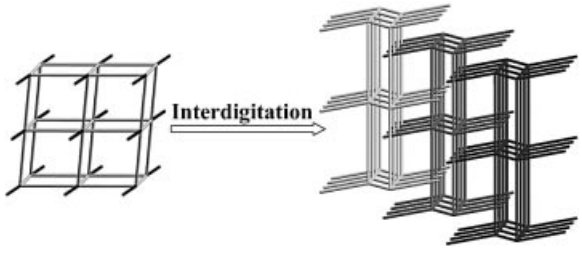
Contents

Keywords: Alumina / Materials science / Micro- and macrostructures / Supported catalysts

SHORT COMMUNICATIONS





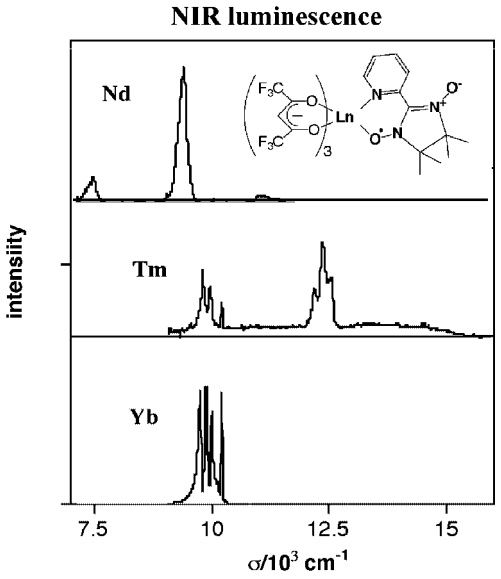


FULL PAPERS

3503 **S. Kaizaki,* D. Shirotani, Y. Tsukahara, H. Nakata**

First Observation of NIR 4f−4f Luminescence through the Energy Transfer from the SOMO π* Doublet in Nitronyl Nitroxide Radical Lanthanide(III) Complexes

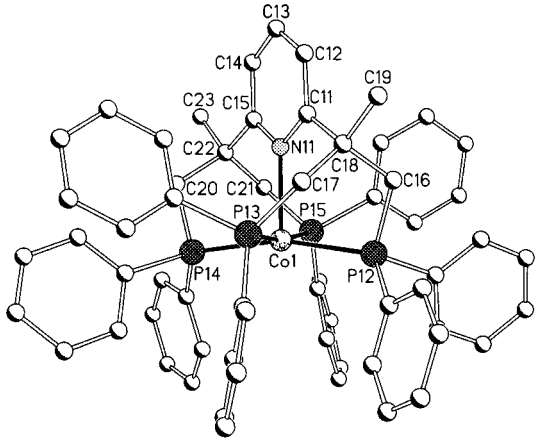
Keywords: Near infrared 4f−4f luminescence / Lanthanide(III) complexes / Nitronyl nitroxide radical / Energy transfer / Antenna effect



3506 **C. Zimmermann, F. W. Heinemann, A. Grohmann***

A Tetraphosphane Imine Ligand Which Enforces Square-Pyramidal Coordination

Keywords: Tetrapodal pentadentate ligand / Phosphane ligands / Chelates / Cobalt / Nickel



3513 **S. Durot, C. Policar,* F. Cisnetti, F. Lambert, J.-P. Renault, G. Pelosi, G. Blain, H. Korri-Youssoufi, J.-P. Mahy**

Series of Mn Complexes Based on *N*-Centered Ligands and Superoxide − Reactivity in an Anhydrous Medium and SOD-Like Activity in an Aqueous Medium Correlated to Mn^{II}/Mn^{III} Redox Potentials

Keywords: N,O ligands / Manganese / Superoxide / SOD mimics / Imidazole / Phenolate