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| Title:       | Syntheses and X-ray crystal structures of five- and six-coordinate copper(II) complexes of N,N,N',N'-tetraalkylpyridine-2,6-dicarboxamides containing-OCIO <sub>3</sub> and-OSO <sub>2</sub> CF <sub>3</sub> counter ions.  |
| Authors:     | Kapoor, Ramesh (/jspui/browse?type=author&value=Kapoor%2C+Ramesh)   |
| Keywords:    | Alkyl-substituted pyridine-2,6-dicarboxamides<br>Metathetical reactions<br>Steric and anionic effects<br>X-ray crystal structures   |
| Issue Date:  | 2010  |
| Publisher:   | Taylor & Francis.   |
| Citation:    | Journal of Coordination Chemistry, 63 (20), pp. 3635-3647   |
| Abstract:    | Reactions of anhydrous copper(II) chloride with NaX (1 : 1 or 1 : 2) and AgX (1 : 2) containing appropriate N,N,N',N'-tetraalkylpyridine-2,6- dicarboxamides(O-daap) in CH <sub>3</sub> CN yield monosubstituted five-coordinate [Cu(L1)C l(CF <sub>3</sub> SO <sub>3</sub> )] (1), [Cu(L2)Cl(ClO <sub>4</sub> )] (2), [Cu(L3)Cl(ClO <sub>4</sub> )] (3), and six- coordinate [Cu(L2)(CF <sub>3</sub> SO <sub>3</sub> ) <sub>2</sub> ] H <sub>2</sub> O (4) (X = -OCIO <sub>3</sub> and-OSO <sub>2</sub> CF <sub>3</sub> ; L1 = N,N,N',N'-tetraethylpyridine-2,6- dicarboxamides; L2 = N,N,N',N'-tetraisopropylpyridine-2,6-dicarboxamides; L3 = N,N,N',N'-tetraisobutylpyridine-2,6-dicarboxamides). The structures of these complexes have been determined by X-ray crystallography. The Cu <sup>2+</sup> in 1-3 adopts distorted square-pyramidal geometry, while 4 exhibits octahedral structure. Steric factors in conjunction with lattice effects and the nature of the anions are responsible for the variety in coordination spheres. These compounds undergo extensive intermolecular H-bonding to give to 2-D sheets extending along various planes. |
| Description: | Only IISERM authors are available in the record.  |
| URI:         | <a href="http://www.tandfonline.com/doi/abs/10.1080/00958972.2010.517267">http://www.tandfonline.com/doi/abs/10.1080/00958972.2010.517267</a><br>( <a href="http://www.tandfonline.com/doi/abs/10.1080/00958972.2010.517267">http://www.tandfonline.com/doi/abs/10.1080/00958972.2010.517267</a> )  |
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