63 Cu NQR Studies of Three-coordinated Complexes of Cu(I) with an Isocyanide Ligand*

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The 63 Cu NQR spectra of five three-coordinated complexes of Cu(I) containing an isocyanide ligand are reported. The resonance frequencies are compared with those of other three-coordinated Cu(I) complexes using a partial coupling constant model to describe the effects of the various ligands and to take into account the effects of variations in the molecular geometries. The partial coupling constant of the isocyanide ligand is much higher than that of any other ligand studied so far and leads to the order of donor atom partial field gradients for terminal ligands $C>N>Cl>P\approx S\approx Br>I>O$.

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