Non-symmetrical bis(aminoalkyl)phosphinates: new ligands with enhanced binding of Cu(II) ions.

Autorzy

Karolina Piasta

Anna Dziełak

Artur Mucha

Elżbieta Gumienna-Kontecka

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Streszczenie

Three novel, non-symmetrical bis(aminoalkyl)phosphinic acids, L^1–L^3, have been synthesized and characterized. Solution studies on the coordination abilities of the ligands have shown that these compounds form various protonated mono- and bis-complexes, where copper(II) coordination is realized through the nitrogen atom(s) of the amino group(s), supported by oxygen(s) from the phosphinate unit(s). Potentiometric titrations and a full spectroscopic analysis clarified the species distribution profiles and detailed coordination modes. The results show that L^1–L^3 ligands are efficient chelating agents for Cu(II) ions; their metal binding abilities were compared to structurally related compounds described earlier in the literature.

Adres publiczny

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