

配合物稳定性与配位体酸碱强度之间的直线自由能关系 IX: Cu(II)[或Ni(II)]-2,2'-联吡啶-N,N'-双(对位取代苯基)乙二胺三元配合物体系的研究

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摘要 报导了以2,2'-联吡啶为第一配体, N,N'-双(对位取代苯基)乙二胺为第二配体的Cu(II)、Ni(II)三元配合物稳定性的研究,发现三元配合物的稳定性与第二配体的碱性强度之间存在线性自由能关系.

关键词 [稳定常数](#) [铜络合物](#) [三元络合物](#) [镍络合物](#) [乙二胺](#) [酸碱平衡](#) [络合物化学](#) [联吡啶](#) [P](#) [配位体](#)

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## Linear free energy relationships between stability of complex compounds and strengths of acid and base of ligands IX: Copper (II)-[or nickel (II)]-2,2'-bipyridyl-N,N'-Di-(p-substituted phenyl)ethylenediamine ternary systems

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**Abstract** The formation constants of Cu(II)-[or Ni(II)]-bipy-N,N-bis(substituted phenyl)ethylenediamine were determined by pH method at 25°C I = 0.1 mol/dm<sup>3</sup>(NaClO<sub>4</sub>) in 50% (v/v) dioxane solution. Linear free energy relationships were found to exist between the formation constants of the ternary complex compounds and the protonation constants of the second ligands (i.e.  $\log K_{MABMA} = a - b \log K_{1H}$ ). It was also found that the stability of the ternary complex is greater than that of the parent binary complex. This phenomenon could be explained by the formation of back p-bonding between metal ion and the first ligand.

**Key words** [STABILITY CONSTANT](#) [COPPER COMPLEX](#) [TERNARY COMPLEX](#) [NICKEL COMPLEX](#) [ETHANEDIAMINE](#) [ACID-BASE EQUILIBRIUM](#) [COORDINATE CHEMISTRY](#) [BIPYRIDINE](#) [P](#) [LIGANDS](#)

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