

A heterometallic Ni₂Gd₂ complex: synthesis, structure and magnetic properties.

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Streszczenie

A novel tetranuclear complex [Ni₂Gd₂(L)₂(CH₃COO)₂(NO₃)₂](NO₃)₂·6H₂O·4MeOH (**1**) with a nitrate ion coordinating in a manner observed until now only in polymeric structures was obtained. The NO₃⁻ anion acts both as chelating (chelates to the Gd(III) ion) and bridging (between Ni(II) and Gd(III)) ligand and it also links the two symmetrically dependent parts of molecules into one tetranuclear unit through the short bridge between Gd^{III} and Gd^{III} cations. In **1** the ferromagnetic interactions between Ni(II) and Gd(III) ($J_{\text{Ni-Gd}} = 0.6(2) \text{ cm}^{-1}$) as well as Gd(III) and Gd(III) ($J_{\text{Gd-Gd}} = 0.5(1) \text{ cm}^{-1}$) ions are observed.

Słowa kluczowe

3d–4f complex, Schiff base, Nitrate coordination modes,
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