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Field-induced slow relaxation of magnetization in a mononuclear Co(II) complex of 2,6-bis(pyrazol-1-yl)pyridine functionalized with a carboxylic acid

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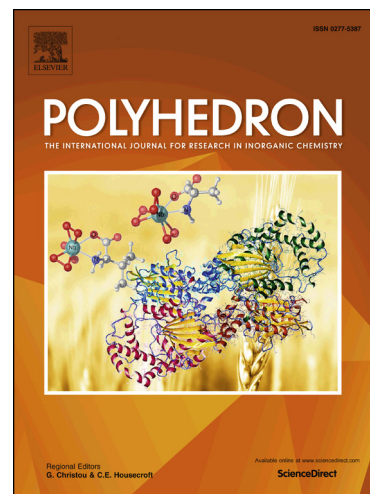
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**Field-induced slow relaxation of magnetization in a  
mononuclear Co(II) complex of 2,6-bis(pyrazol-1-yl)pyridine  
functionalized with a carboxylic acid**

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**Abstract**

Combining Co(II) with the 2,6-bis-(pyrazol-1-yl)pyridine ligand functionalized with a carboxylic acid group (bppCOOH) results in the compound  $[\text{Co}^{\text{II}}(\text{bppCOOH})_2](\text{ClO}_4)_2 \cdot 2\text{Me}_2\text{CO}$ , which shows a field-induced slow relaxation of magnetization as a result of the magnetic anisotropy of the distorted octahedral coordination of high-spin Co(II). Co(II)/Fe(II) solid solutions of bppCOOH have been prepared to study the influence of Co(II) on the spin crossover properties of Fe(II). Magnetic characterization of  $[\text{Fe}_{0.92}\text{Co}_{0.08}(\text{bppCOOH})_2](\text{ClO}_4)_2$  indicates that the Cobalt dopant leads to a reduction of  $T_{1/2}$  and a loss of cooperativity of the spin transition.

**Keywords:** Single ion magnets / Magnetic properties / 2,6-bis-(pyrazol-1-yl)pyridine / Coordination chemistry / Cobalt(II) / Spin crossover / Iron(II)

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