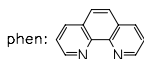
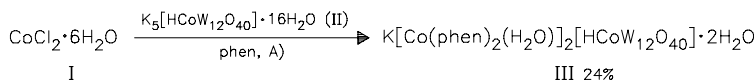


Cobalt

I 7200

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Two Novel Keggin Tungstocobaltates Grafted by Cobalt^{II} Complex Group(s):
**K[Co(phen)₂(H₂O)]₂[HCoW₁₂O₄₀]·2H₂O and [Co(2,2'-bipy)₃]_{1.5}{[Co(2,2'-bi-
 py)₂(H₂O)]₂[HCoW₁₂O₄₀]}·0.5H₂O.** — The crystal structures of the new compounds
 (III) and (IV) are determined by single crystal XRD. Compound (III) crystallizes in the
 triclinic space group $P\bar{1}$ with $Z = 1$. It exhibits a pseudo-one-dimensional chainlike
 structure, in which K⁺ ions act as linkages of Keggin units doubly grafted by the
 [Co(phen)₂(H₂O)] complex. Compound (IV) crystallizes in the orthorhombic space
 group C2/c with $Z = 4$. It represents a [Co(bipy)₂(H₂O)]²⁺ mono-grafted Keggin tung-
 stocobaltate derivative with 1.5 [Co(bipy)₃]²⁺ counteranions. (III) is further character-
 ized by cyclic voltammetry. Magnetic susceptibility measurements demonstrate the
 presence of antiferromagnetic interactions in (III). — (SHA, J.; PENG*, J.; CHEN, J.;
 LIU, H.; TIAN, A.; ZHANG, P.; Solid State Sci. 9 (2007) 11, 1012-1019; Key Lab.
 Polyoxometalates Sci. Min. Educ., Northeast Norm. Univ., Changchun 130024, Peop.
 Rep. China; Eng.) — W. Pewestorf



A): NH₄VO₃, NEt₃, NaOH, H₂O, 160°C, [pH 4.3, autoclave, 6 d]

