

عنوان مقاله:

New precursors for preparation of pure phase lead(II) oxide nanoparticles via thermal decomposition with Lead(II) complexes

محل انتشار:

همایش منطقه ای شیمی (سال: 1389)

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خلاصه مقاله:

The coordination polymers have been developed extensively and have attracted much attention in recent years [1]. The potential use of supramolecular coordination complexes as materials for nanotechnological applications would seem to be very extensive as nanometer-scaled materials often exhibit the new interesting size-dependent physical and chemical properties that cannot be observed in their bulk analogous[1-3]. Lead(II) 8-hydroxyquinolate complexes have been synthesized and characterized by elemental analysis, FT-IR, ¹H NMR- and ¹³C NMR spectroscopy. All these compounds were structurally characterized by single-crystal X-ray diffraction. The structures have been considered coordination polymers. The new nano-structures were characterized by scanning electron microscopy (SEM), X-ray powder diffraction, elemental analyses and IR spectroscopy. PbO nano-powder was obtained by calcinations of the nano-structures of compounds at 650°C. This study demonstrates the coordination polymers may be suitable precursors for the preparation of nano-scale materials and dependent on their packing they may produce [different and interesting morphologies][1,4]

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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