

Poster Presentations

Microwave thermolysis of oxime-copper(II) complex to produce nanometal oxides

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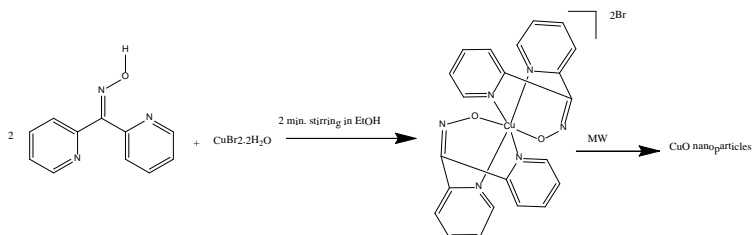
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Abstract

Copper oxide nanoparticles belong to monoclinic structure system, it has different applications according to the chemical and physical properties such as superconductivity [8], photovoltaic properties, relative stability, low cost and the antimicrobial activity. There are several ways to synthesize the copper oxide nanoparticles in various sizes and shapes, and has entered into several major applications in our daily lives.

We here, in this work discuss microwave radiations of novel copper bromide/di-2-pyridyl ketone oxime complex as single precursors to prepare monoclinic CuO nanoparticles, as seen scheme 1, and their characterization by many techniques such as: XRD , SEM, EDX, UV-Vis. and FT-IR, as seen in Figure 1.



Scheme 1. Synthesis pathway of CuO nanoparticles from the desired complex.

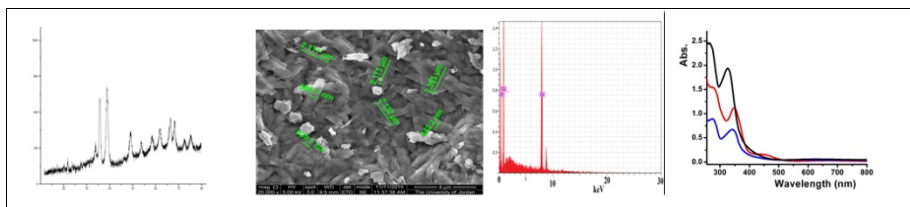


Fig. 1. XRD, SEM, EDX, UV-Vis of CuO nanoparticles.

Keywords: Cu(II) Complexes, XRD, MW, CuO nanoparticles.

References

[1] N. Bouazizi, R. Bargougui, A. Oueslati, Adv. Mater. Lett. 2015, 6(2), 158-164.