Inventive Synthesis and Characterization of a Cesium Molybdate Compound: CsBi(MoO4)2

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Abstract : Cesium molybdates with general formula CsMIII(MoO4)2, where MIII = Bi, Dy, Pr, Er, exhibit rich polymorphism, and crystallize in a layered structure. These properties cause intensive studies on cesium molybdates. CsBi(MoO4)2 was synthesized by microwave method by using cerium sulphate, bismuth oxide and molybdenum (VI) oxide in an appropriate molar ratio. Characterizations were done by x-ray diffraction (XRD), fourier transform infrared (FTIR) spectroscopy, scanning electron microscopy/energy dispersive analyze (SEM/EDS), thermo gravimetric/differantial thermal analysis (TG/DTA). **Keywords :** cesium bismuth dimolybdate, microwave synthesis, powder x-ray diffraction, rare earth dimolybdates **Conference Title :** ICMSME 2015 : International Conference on Material Science and Material Engineering

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