



>>Entry Name: Copper tungstate (CuWO₄)

Synonym(s): Copper tungsten oxide (CuWO₄), 9Cl

CAS Registry Number: 13587-35-4

CuWO₄

Molecular Formula: CuO₄W

Molecular Weight: 311.394

Accurate Mass: 310.870186

Percentage Composition: Cu 20.41%; O 20.55%; W 59.04%

Source/Synthesis: Phase in the CuO-WO₃ system

Use/Importance: Used in semiconductors, in nuclear reactors and as a catalyst in polyester formation

Physical Description: Light green powder + 2H₂O. Becomes brown to greyish-yellow on heating with loss of H₂O. *n*-type semiconductor

Melting Point: Mp 930°

Other Data: Has a distorted wolframite struct.

References:

Kosek, F. *et al.*, *Coll. Czech. Chem. Comm.*, 1959, **24**, 2034, (*synth, electrical props*)

Kihlborg, L. *et al.*, *Acta Cryst. B*, 1970, **26**, 1020, (*cryst struct*)

Weitzel, H., *Solid State Commun.*, 1970, **8**, 2071, (*magnetic struct*)

Albrecht, R. *et al.*, *Z. Anorg. Allg. Chem.*, 1972, **392**, 62, (*synth*)

Kashina, T.A. *et al.*, *Russ. J. Phys. Chem. (Engl. Transl.)*, 1975, **49**, 1288, (*thermodyn*)