



>>Entry Name: Copper(II) bromide (CuBr₂), 11Cl, 10Cl, 9Cl

Synonym(s): Cupric bromide

CAS Registry Number: 7789-45-9

CuBr₂

Molecular Formula: Br₂Cu

Molecular Weight: 223.354

Accurate Mass: 220.81627

Percentage Composition: Br 71.55%; Cu 28.45%

General Statement: Distorted CdI₂ struct.

Use/Importance: Wood preserver. Intensifier in photography, brominating agent, oxidising agent, Lewis acid

Physical Description: Black, deliquescent monoclinic cryst.

Melting Point: Mp 498°

Boiling Point: Bp 900°

Solubility: V. sol. H₂O; sol. EtOH, Me₂CO; insol. C₆H₆, Et₂O

Aldrich: 43786-7

Fluka: 61165

Sigma: C6018

>>Derivative: Di-NH₃ complex

see Diamminedibromocopper(II), [JRD87-B](#)

>>Derivative: Tetrakis-tetrathiafulvalene complex

Synonym(s): TTF-CuBr₂

Molecular Formula: C₂₄H₁₆Br₂CuS₁₆

Molecular Weight: 1040.8

Accurate Mass: 1036.49459

Percentage Composition: C 27.70%; H 1.55%; Br 15.35%; Cu 6.11%; S 49.29%

Source/Synthesis: Synth. by reaction of TTF with Cu(sparteine)Br₂ in CH₂Cl₂

Use/Importance: Semiconducting charge-transfer complex with relatively high elect. conductivity

Physical Description: Purple solid (CH₂Cl₂)

Solubility: Sol. CH₂Cl₂

Other Data: Struct. contains columnar stacks of TTF molecules

References:

Watt, G.W. *et al.*, *J.A.C.S.*, 1955, **77**, 2752, (*synth*)

Ramdall, S.P. *et al.*, *J. Phys. Chem.*, 1959, **63**, 758, (*struct*)

Hougen, J.T. *et al.*, *J. Chem. Phys.*, 1961, **34**, 1670, (*struct*)

Frost, D.C. *et al.*, *Mol. Phys.*, 1972, **24**, 861, (*pe*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **2**, 977, (*synth*)

Islam, N., *Indian J. Chem., Sect. A*, 1975, **13**, 1080, (*ir*)

Iordanov, N. *et al.*, *J. Inorg. Nucl. Chem.*, 1976, **38**, 137, (*epr*)

Bastow, T.J. *et al.*, *J. Mol. Struct.*, 1980, **58**, 305, (*nqr*)

Kim, Y.I. *et al.*, *Inorg. Chim. Acta*, 1991, **189**, 237, (*TTF complex*)

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