



>>Entry Name: Zirconium iodide (ZrI₄), 11Cl

Synonym(s): Zirconium tetraiodide

CAS Registry Number: 13986-26-0

ZrI₄

Molecular Formula: I₄Zr

Molecular Weight: 598.842

Accurate Mass: 597.522595

Percentage Composition: I 84.77%; Zr 15.23%

sharing of non-opposite edges to give a helical structure. Tetrahedral in the gas phase

Source/Synthesis: Synth. from Zr + I₂ or ZrO₂ + AlI₃ in a sealed tube at 400° or by reaction of ZrCl₄ with AlI₃

Use/Importance: Commercially available

Physical Description: Orange-red to yellow powder

Melting Point: Mp 500°

Boiling Point: Subl. 420° (vacuum)

Aldrich: 40057-2

References:

Chaigneau, M., *Bull. Soc. Chim. Fr.*, 1957, 886, (*synth*)

Watt, G.W. *et al.*, *J. Inorg. Nucl. Chem.*, 1961, **22**, 49, (*synth*)

Clark, R.J.H. *et al.*, *Inorg. Chem.*, 1972, **11**, 56, (*Raman of vapour*)

Zasorin, E.Z. *et al.*, *Izv. Vyssh. Uchebn. Zaved., Khim. Khim. Tekhnol.*, 1973, **16**, 802; *CA*, **79**, 71111d, (*ed*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **2**, 1357, (*synth*)

Krebs, B. *et al.*, *Acta Cryst. B*, 1979, **35**, 274, (*cryst struct*)

Troyanov, S.I. *et al.*, *Vestn. Mosk. Univ., Ser. 2: Khim.*, 1981, **22**, 82; *CA*, **94**, 130702g, (*cryst struct, α- and β-forms*)

Troyanov, S.I., *Kristallografiya*, 1986, **31**, 446; *CA*, **105**, 15726b, (*cryst struct, γ-form*)