



>>Entry Name: Indium tellurides

**Molecular Formula:** [InTe]

>>Variant: Indium telluride (In<sub>4</sub>Te<sub>3</sub>)

**Synonym(s):** Tetraindium tritelluride

**CAS Registry Number:** 12608-19-4

**Molecular Formula:** In<sub>4</sub>Te<sub>3</sub>

**Molecular Weight:** 842.08

**Accurate Mass:** 849.334207

**Percentage Composition:** In 54.54%; Te 45.46%

**Source/Synthesis:** From elements at 500°

**Physical Description:** Black needles

>>Variant: Indium telluride (InTe)

**CAS Registry Number:** 12030-19-2

**Molecular Formula:** InTe

**Molecular Weight:** 242.42

**Accurate Mass:** 244.810109

**Percentage Composition:** In 47.36%; Te 52.64%

**Source/Synthesis:** Synth. from elements at 700°

**Physical Description:** Black solid

**Melting Point:** Mp 696°

**Other Data:** Forms mixed cryst. with InAs, which has overall wurtzite struct.  $\Delta H_f^\circ -38.4 \text{ kJ mol}^{-1}$ ,  $S^\circ 5.8 \text{ J K}^{-1} \text{ mol}^{-1}$

>>Variant: Indium telluride (In<sub>3</sub>Te<sub>4</sub>)

**Synonym(s):** Triindium tetratelluride

**CAS Registry Number:** 12030-33-0

**Molecular Formula:** In<sub>3</sub>Te<sub>4</sub>

**Molecular Weight:** 854.86

**Accurate Mass:** 864.336556

**Percentage Composition:** In 40.29%; Te 59.71%

**Source/Synthesis:** Obt. from fused elements

**Physical Description:** Black cryst. (melt)

**Other Data:**  $\Delta H_f^\circ -81.6 \text{ kJ mol}^{-1}$ ,  $S^\circ 18.0 \text{ J K}^{-1} \text{ mol}^{-1}$

>>Variant: Indium telluride (In<sub>2</sub>Te<sub>3</sub>)

**Synonym(s):** Diindium tritelluride

**CAS Registry Number:** 1312-45-4

**Molecular Formula:** In<sub>2</sub>Te<sub>3</sub>

**Molecular Weight:** 612.44

**Accurate Mass:** 619.526447

**Percentage Composition:** In 37.50%; Te 62.50%

**Source/Synthesis:** Synth. from elements

**Physical Description:** Black brittle solid

**Melting Point:** Mp 667°

**Other Data:** Forms mixed cryst. with InAs

**Aldrich:** 46101-6

>>Variant: Indium telluride (In<sub>3</sub>Te<sub>5</sub>)

**Synonym(s):** Triindium pentatelluride

**CAS Registry Number:** 12508-77-9

**Molecular Formula:** In<sub>3</sub>Te<sub>5</sub>

**Molecular Weight:** 982.46

**Accurate Mass:** 994.242785

**Percentage Composition:** In 35.06%; Te 64.94%