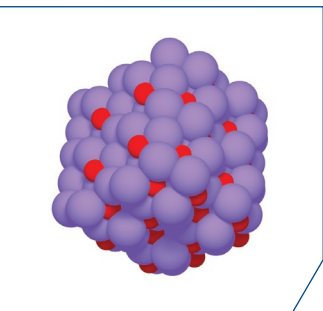


EuI_2
CAS # 22015-35-6

Europium Iodide

CRYSTAL GROWTH GRADE

Representation of Structure



Europium Iodide has been demonstrated to suppress afterglow effects present in many high performance scintillation crystals, like thallium doped CeI_2 . Afterglow affects the energy resolution of the detector crystal and causes imaging artifacts to appear in the output of the detector. Thallium ions tend to introduce “shallow” electron traps that cause room temperature afterglow. The Eu_2^+ ion introduces “deep” electron traps, interrupting the afterglow mechanism when crystals are co-doped with Europium (II) Iodide at concentrations of 0.1–0.2 atomic percent. Europium (II) Iodide also has been used as an activator in CaI_2 scintillation detectors and shown to have pulse heights twice as high as NaI:Tl crystals.

SAFC Hitech™ Europium(II) iodide is available as an anhydrous crystalline powder of 99.9% trace metals purity. Material can be packaged in customer furnished containers or to custom quantity in a choice of packaging options. SAFC Hitech will custom blend EuI_2 into other crystal growth halides for a ready-to-use crystal growth formulation.

Ordering Information

Product	Code
Anhydrous Powder	HT-EUI320XG-CONF

Physical Properties

Formula Weight:	405.77 g/mol
Boiling Point:	1580°C
Melting Point:	580°C
Crystal Density:	5.5 g/cc
Solubility:	Soluble, not measured

Storage

EuI_2 is hygroscopic and should be stored in air-tight containers prior to use to preserve material integrity.

Trace Metals Specifications 99.9%

Major Metals Impurities	ICP-MS (ppm)
Ca	<10
La	<20
Lu	<80
Mg	<25
Mn	<15
Na	<5
Sr	<5
Y	<100
Zn	<10