

Lead in bronze certified for the Pb isotope amount ratios

Art. ID	ERM-EB400
Unit	1 g
Deliverydetails	No Dangerous Good /not restricted

Description

The isotopic reference material ERM-EB400 is a chipped bronze material with a Pb mass fraction of 45 mg/kg. Approximately 1 g of bronze swarfs is filled in crimp vials, which are sealed in PE bags. This material is designed for verification and validation of all procedures (e.g. TIMS, ICPMS) being used for the determination of Pb isotope amount ratios.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
Certified quantity	Isotope amount ratio n(206Pb)/n(204Pb)		18,072	mol/mol		
Certified quantity	Isotope amount ratio n(207Pb)/n(204Pb)		15,578	mol/mol		
Certified quantity	Isotope amount ratio n(208Pb)/n(204Pb)		38,075	mol/mol		
Certified quantity	Isotope amount ratio n(208Pb)/n(206Pb)		2,1068	mol/mol		
Certified quantity	Isotope amount fraction n(204Pb)/n(Pb)		0,0137504	mol/mol		
Certified quantity	Isotope amount fraction n(206Pb)/n(Pb)		0,2485	mol/mol		
Certified quantity	Isotope amount fraction n(207Pb)/n(Pb)		0,2142	mol/mol		
Certified quantity	Isotope amount fraction n(208Pb)/n(Pb)		0,52355	mol/mol		
Certified quantity	Molar mass of Pb in bronze M(Pb)		207,20968	g/mol		
Additional Material Information, mass fraction	Copper (Cu)	[7440-50-8]	0,9404	kg/kg		
Additional Material Information, mass fraction	Tin (Sn)	[7440-31-5]	0,0592	kg/kg		
Additional Material Information, mass fraction	Bismuth (Bi)	[7440-69-9]	42,2	mg/kg		
Additional Material Information, mass fraction	Lead (Pb)	[7439-92-1]	44,9	mg/kg		