

Lead in bronze certified for the Pb isotope amount ratios

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|-----------------|-----------------------------------|
| 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 | | |