

Zinc – Lead – Silver Ores

DIGESTION OF ZINC – LEAD – SILVER ORES USING COLDBLOCK™ DIGESTION TECHNOLOGY

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Introduction

This application note will focus on the digestion of Zinc – Lead – Silver ores using ColdBlock™ Digestion CB12L Technology.

Method

Samples of CRM's (Certified Reference Material's) OREAS-624, OREAS-133b and OREAS-622 was digested using the following three methods:

- 0.25g of sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 8ml H₂SO₄ and 5.5ml H₃PO₄ was added.
- Sample was digested at 85% power for 20 minutes.
- Chiller temperature was set to -5°C.
- Sample was allowed to cool.
- Sample was normalized to 50 mL with 1% HNO₃.

or

- 0.25g of sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 10ml H₃PO₄ was added.
- Sample was digested at 85% power for 10 minutes.
- Chiller temperature was set to -5°C.
- 8ml of Aqua Regia (1:3 HCl:HNO₃) was added.
- Sample was digested at 85% power for a further 10min.
- Chiller temperature was set to -5°C.
- Sample was allowed to cool.
- Sample was normalized to 50mL with 1% HHNO₃.

or

- 0.25g of sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 10ml Aqua Regia (1:3 HCl:HNO₃) was added.
- Sample was digested at 65% power for 15 minutes.

- Chiller temperature was set to -5°C.
- Sample was allowed to cool.
- Sample was normalized to 50mL with 1% HNO₃.

Instrument

ColdBlock™ Digestion CB12L Technology.

General

This procedure is specific for the sample digested and may need modification for different samples to achieve the desired result.