

Titanium & Zinc in Sunscreen

DIGESTION OF SUNSCREEN FOR TITANIUM AND ZINC USING COLDBLOCK™ DIGESTION TECHNOLOGY

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Introduction

This application note will focus on the digestion of sunscreen lotion SPF 50+ using ColdBlock™ Digestion CB12L Technology.

Method

Quadruple samples of homogenized sunscreen were digested using the following method:

- Chiller temperature was set to -5°C
- ~20mL of sunscreen was added to a 50mL tube and it was mixed for 3 minutes to create a homogenous sample
- 0.3g of the homogenous sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 10mL of H₂SO₄ was added carefully
- Sample was digested at 100% power for 10 minutes.
- Then 5mL HNO₃ & 3-6 mL H₂O₂ was added and digested again at 100% for 5 minutes
- Sample was cooled and topped up to 50mL with 2% 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.