

# Titanium in Daily Facial Moisturizer

## DIGESTION OF FACIAL MOISTURIZER FOR TITANIUM USING COLDBLOCK™ DIGESTION TECHNOLOGY

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### Introduction

This application note will focus on the digestion of facial moisturizer for sensitive skin – broad spectrum SPF 50 using ColdBlock™ Digestion CB12L Technology.

### Method

Triplicate samples of homogenized moisturizer were digested using the following 2 methods:

- Chiller temperature was set to -5°C
- Moisturizer was shaken and mixed for ~3-5 minutes to create a homogenous sample
- 0.3g of the homogenous sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 10mL of H<sub>2</sub>SO<sub>4</sub> was added carefully
- Sample was digested at 100% power for 10 minutes.
- Then 5mL HNO<sub>3</sub> & 3mL H<sub>2</sub>O<sub>2</sub> was added and digested again at 100% for 5 minutes
- Once cool sample was topped to 50mL with 2% HNO<sub>3</sub>

OR

- Chiller temperature was set to -5°C
- Moisturizer was shaken and mixed for ~3-5 minutes to create a homogenous sample
- 0.3g of the homogenous sample was weighed and placed into a ColdBlock™ Digestion vessel.
- 10mL of H<sub>2</sub>SO<sub>4</sub> was added carefully
- Sample was digested at 100% power for 10 minutes.
- Then 5mL HNO<sub>3</sub> & 3mL H<sub>2</sub>O<sub>2</sub> was added and digested again at 100% for 5 minutes
- Sample was carefully decanted to a plastic 50mL tube and 1.0g of NH<sub>4</sub>F (a safer alternative to HF) was added slowly to the hot digestate
- Once the sample was clear ~1 minute, it was topped up to 50mL with 2% HNO<sub>3</sub>  
\*Complete Dissolution/Total Digestion – HF created in situ

## 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.