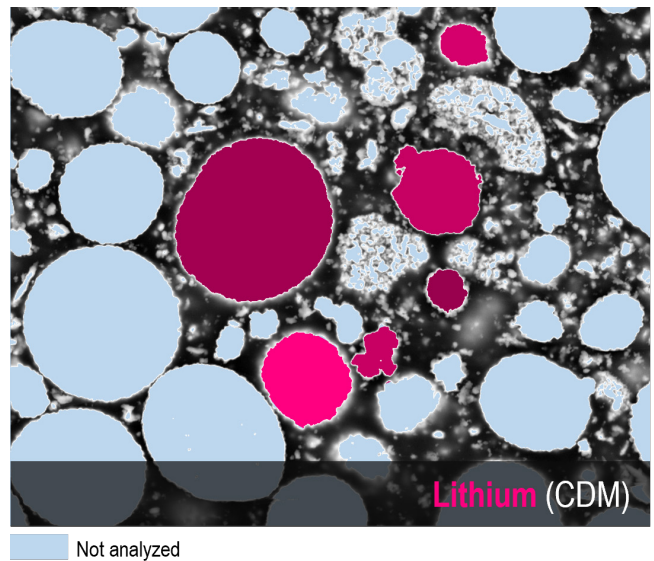# Cipher System for Lithium Analysis
## Model 475

Cipher™ is the first and only system that quantitatively reveals the distribution of lithium in scanning electron microscopes and dual beam instruments. Cipher uses the groundbreaking lithium by composition by difference method (Li-CDM) to determine the lithium content in metallic alloys, compounds, and complex metal oxides down to single-digit weight percentages.

## Benefits

- Reveals the previously unobservable distribution of lithium at the microscale in a wide variety of materials

- Determines the charge state of oxide particles used as cathodes in lithium-ion batteries such as (lithium) nickel manganese cobalt oxides (NMCs) and lithium iron phosphate (LFP)

- Delivers quantitative analysis of lithium with a greater than ten-fold improvement in the minimum detection limit*

*Use Cipher to recharge your lithium research by measuring lithium content for the very first time.*
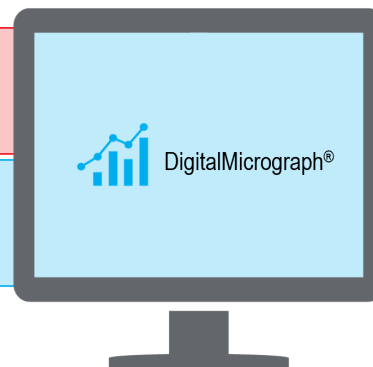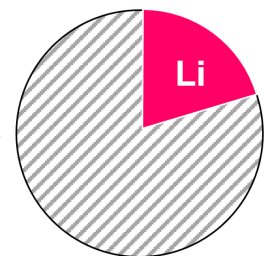


**Lithium** (CDM)

Not analyzed



Octane Elite/Elect Super EDS system

OnPoint™ backscattered electron (BSE) detector

**Composition by difference method (Li-CDM)**

DigitalMicrograph®

**Lithium content**

Li

*Sample dependent