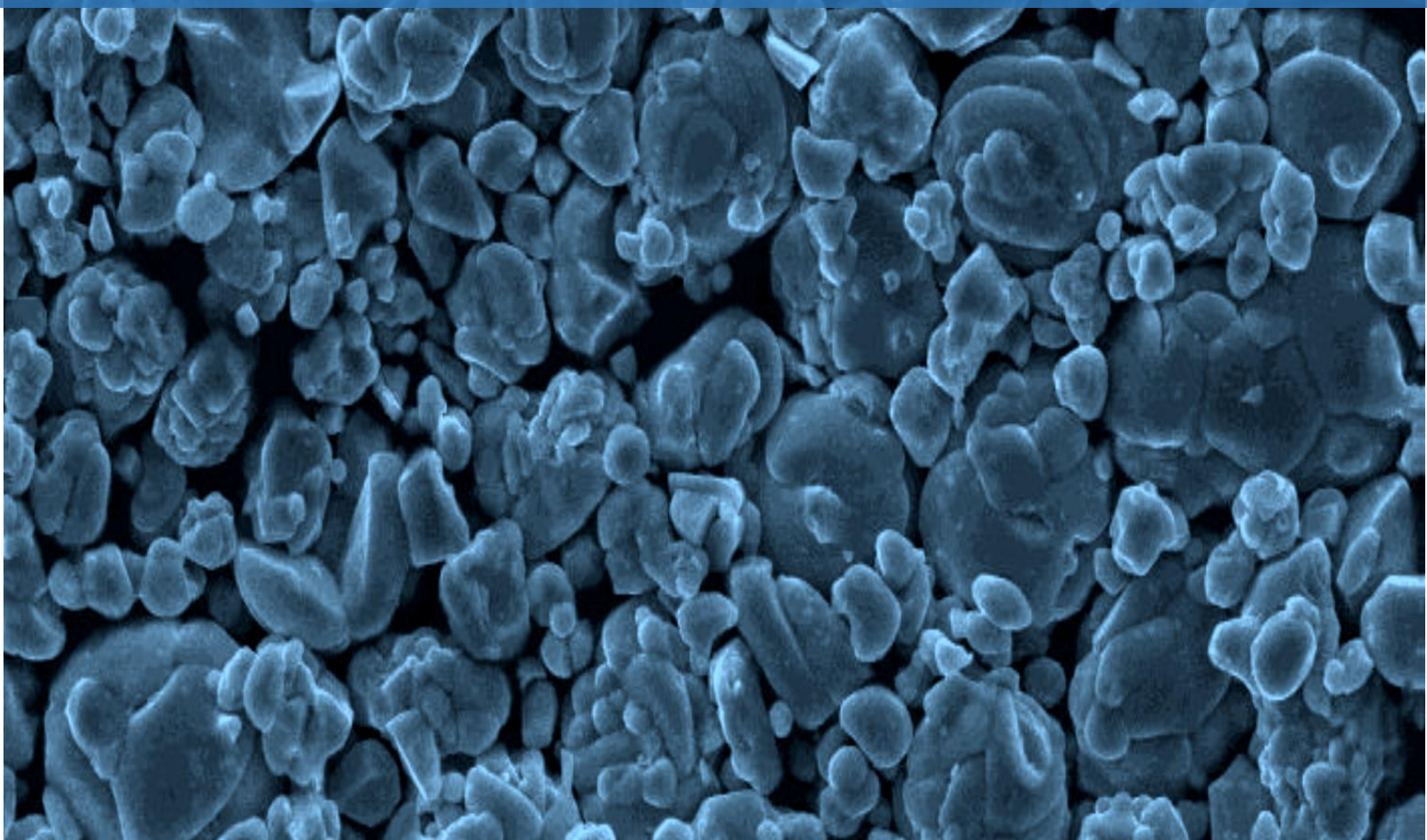


# Lithium Cobalt Oxide

## Cathode Material for Lithium Batteries

High performance LCO cathode material delivering exceptional stability in high voltage and high capacity applications. Ideally suited for use in large-format lithium-ion batteries.



# SLCO03010

For more information, visit [Targray.com](http://Targray.com) or  
contact us at [batterysales@targray.com](mailto:batterysales@targray.com)

# Lithium Cobalt Oxide

## Cathode material for li-ion batteries

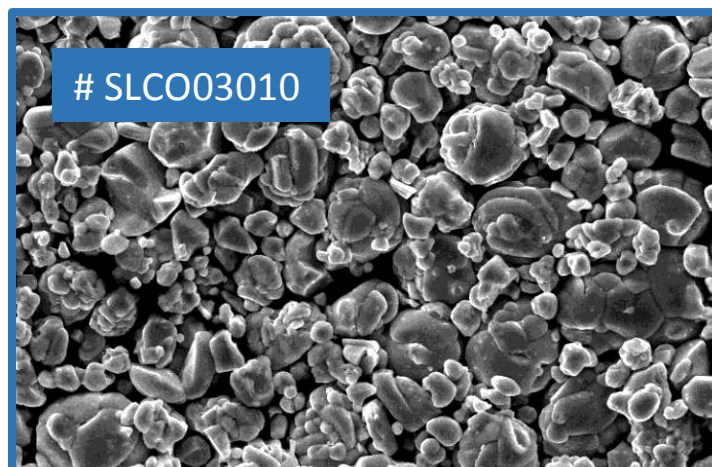


### Product Summary

Synthesized via a high-temperature sintering process, this LCO material from Targray contains special doping and coating elements that enhance lithium-ion battery performance.

**Key Advantage:** Exceptional stability in high-voltage, high-capacity battery applications.

**Application:** 4.2-4.35V High-voltage batteries.



### Product Specifications

		Unit	Standard	Typical	Equipment & Method
Chemical Composition	Li	%	7.0±0.4	6.99	AAS/ICP
	Co	%	60.0±1.0	59.70	EDTA Titration
Impurities	Fe	ppm	≤100	30	AAS/ICP
	Ni	ppm	≤100	15	
	Na	ppm	≤100	60	
	Cu	ppm	≤50	2	
Particle Size Distribution	D10	μm	≥5.0	6.1	Master Size 2000 – Laser particle size analyzer; Hydro2000MU.
	D50		14.0±2.0	14.5	
	D90		≤40.0	24.5	
	Dmax		≤55.0	39.6	
XRD Lattice Type		N/A		N/A	XRD
pH		N/A	9.5-11.0	10.2	pH meter
Moisture		ppm	≤500	220	GB/T (150°C, 2h)
BET Surface Area		m <sup>2</sup> /g	0.25±0.10	0.21	GB/T 13390
Tap Density		g/cm <sup>3</sup>	≥2.5	2.86	GB/T 5162
1 <sup>st</sup> Discharge Capacity		mAh/g	≥190.0	194.6	CR2032
1 <sup>st</sup> Efficiency		%	≥90.0	96.8	0.1C/0.1C, 3.0-4.5V

# # SLCO03010

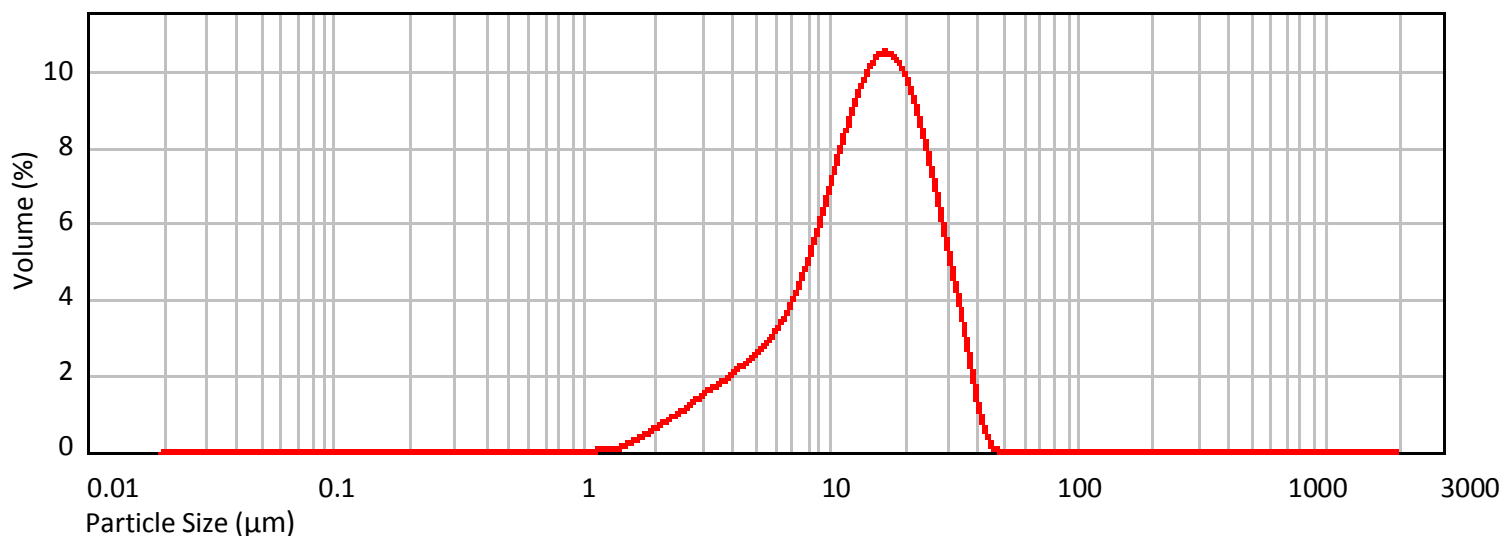
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# Lithium Cobalt Oxide

Cathode material for li-ion batteries



## Particle Size Distribution



## Charge/Discharge Curve

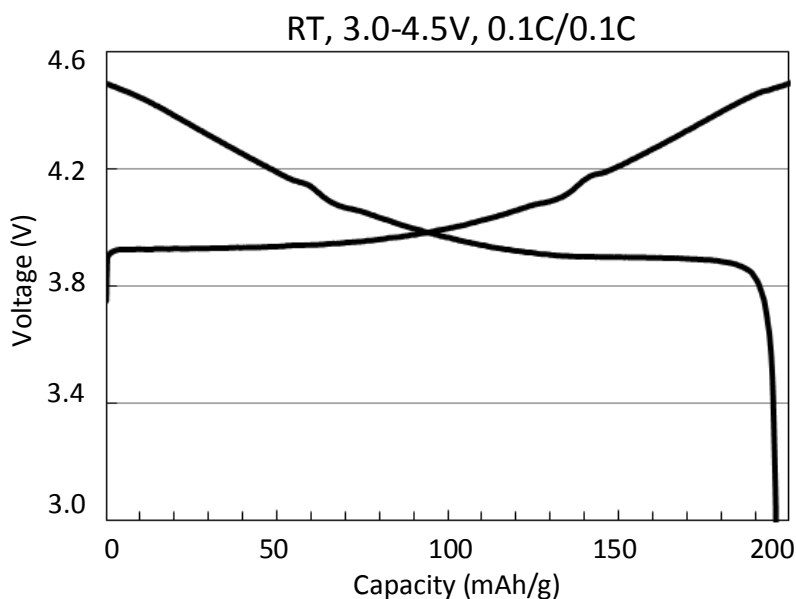
Test type: CR2032

SP: PVDF=94:3:3

Anode: Lithium metal

Electrolyte: Targray

Cut-off voltage: 3.0-4.5V, 0.1C/0.1C



## Recommended Formula

- Cathode: #SLCO03010
- SP: PVDF = 96:2:2
- Anode: Targray Graphite
- Electrolyte: Targray LiPF6

## Recommended Guidelines

Design capacity: 158-165mAh/g (Full cell, 4.35V, 1C) Upper cut-off voltage: 4.35V

Electrode density: 3.95 ~4.10 g/cm<sup>3</sup>, recommended: 4.0 g/cm<sup>3</sup>

# SLCO03010

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