IBU | Volt
Power Solutions

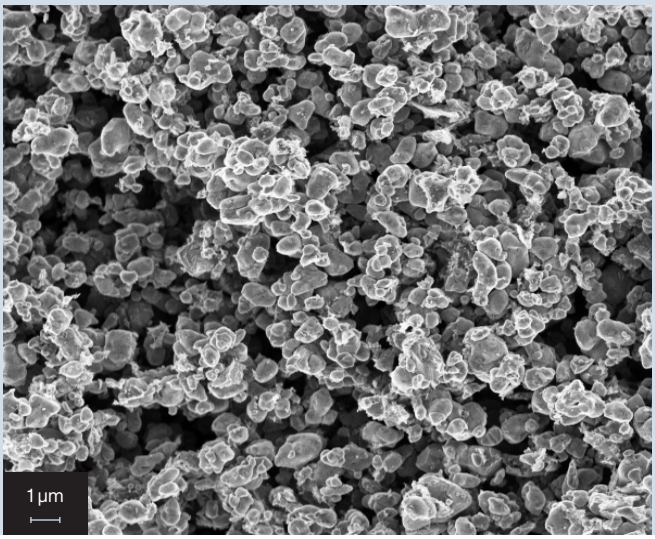
IBUvolt® LFP402

Our LFP is Tailor Made to Customer Specifications.

Europe‘s Leading LFP Supplier.

10 YEARS
OF EXPERIENCE IN
BATTERY MATERIALS

Dr. Katja Kretschmer & Dr. Karl Wegner, Analytics & R&D



LFP402

High energy density cathode material:

High electrode density
The narrow particle size distribution enables a high compactation of the electrode film.

Improved capacity
Optimized modification of the chemical composition lead to less impurities and higher capacity.

Optimized for NMP coating
IBUvolt® LFP402 was developed to show optimal performance in most common coating processes.

CHEMICAL & PHYSICAL PROPERTIES

Item	Unit	Specification	Method
Fe	wt.-%	34.1 ± 1.5	ICP-OES
Li		4.3 ± 0.2	ICP-OES
P		19.2 ± 0.2	ICP-OES
C		1.5 ± 0.2	Combustion
PSD, d10	µm	0.5 ± 0.3	Laser, in water
PSD, d50		1.3 ± 0.5	Laser, in water
PSD, d90		≤ 8.0	Laser, in water
Na	ppm	≤ 250	ICP-OES
K		≤ 100	ICP-OES
Mg		≤ 150	ICP-OES
Ca		≤ 150	ICP-OES
Cr		≤ 50	ICP-OES
Cu		≤ 50	ICP-OES
Zn		≤ 110	ICP-OES
S		≤ 250	ICP-OES
Moisture H_2O	ppm	≤ 1000	Coulometric, 200 °C
Magnetic material	ppb	≤ 50	Magnetic balance
Tapped density	g/cm^3	≥ 0.65	Tapped density tester
Specific surface area	m^2/g	13 ± 3	N_2 Physisorption
pH	-	9 ± 2	5 g in 100 ml water

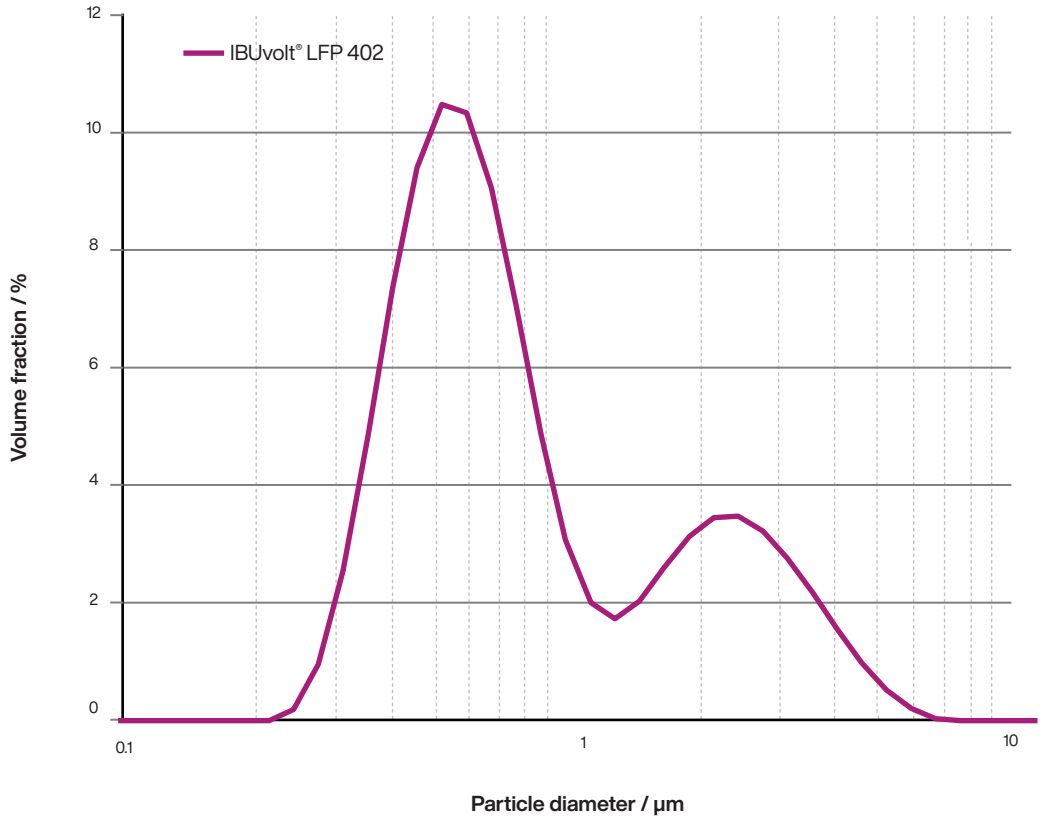
ELECTROCHEMICAL TESTS

Item	Unit	Specification	Method
Specific 2nd discharge capacity at 0.1 C*	mAh/g	≥ 159	Coin cells
Coulomb efficiency 1st cycle	%	≥ 95	Coin cells

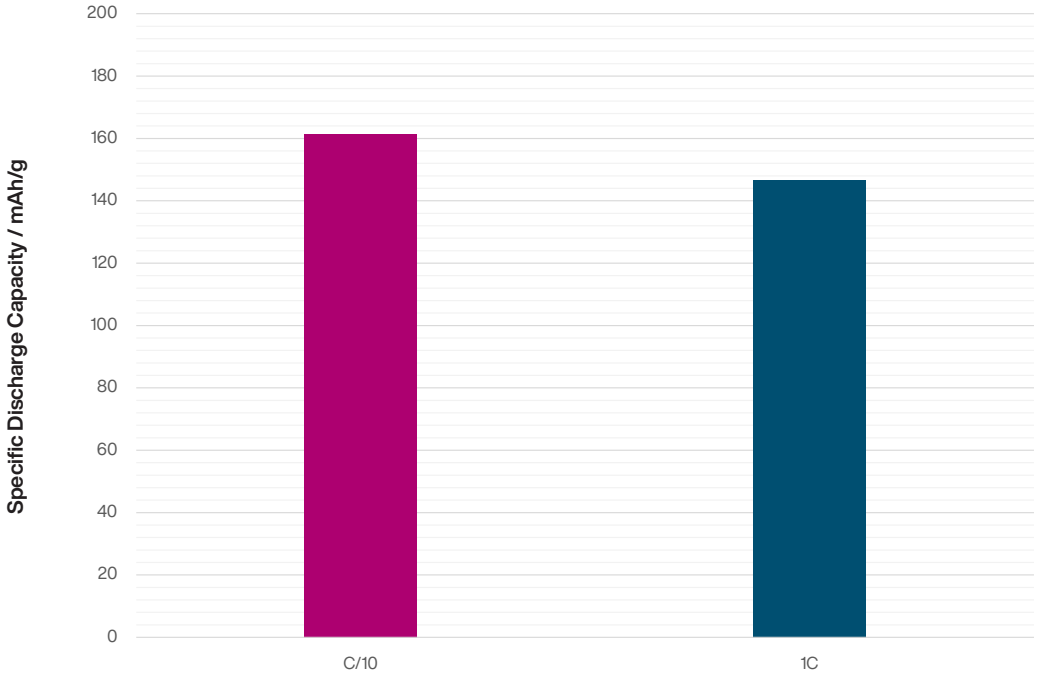
* Half cells, 25 °C, 8 mg/cm^2, $LiPF_6$ EC/DMC/DEC, 3.8 - 2.0 V

IBUvolt battery materials GmbH | Weimar | Germany | Phone +49 3643 8649-0 | mail@ibu-volt.com | www.ibu-volt.com

PARTICLE SIZE DISTRIBUTION



ELECTROCHEMICAL CHARACTERIZATION (COIN CELLS)



Half cells, 25 °C, 23 mg/cm^2, $LiPF_6$ EC/DMC/DEC, 2nd cylce discharge CC 3.8 - 2.0 V

IBUvolt battery materials GmbH

Hainweg 9-11
99425 Weimar
Germany

www.ibu-volt.com