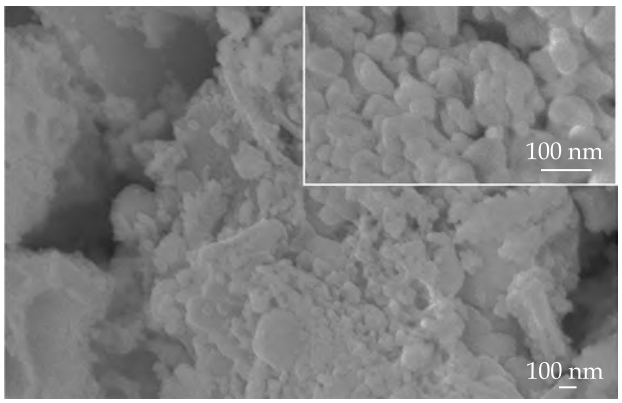
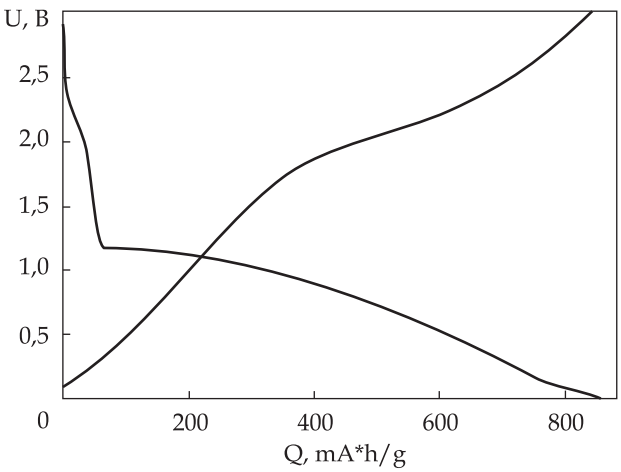
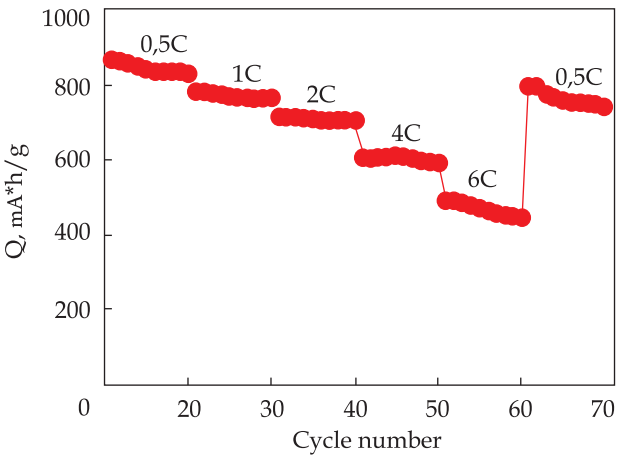
COBALT OXIDE Co_3O_4 FOR HIGH-RATE BATTERY APPLICATIONS



SEM micrograph of Co_3O_4



Charge/discharge curves for Co_3O_4 at a current of 358 mA/g (0.5 C)



Dependence of capacity on discharge current density for Co_3O_4

Areas of Application

Anode material for lithium-ion batteries used in renewable energy

Specification

Operating voltage range, V	0.01—3.0
Nominal capacity at 1.5 C discharge current, mA · h/g	445
Maximal current load, mA/g	5340
Particle size, nm:	1—3
Crystallite size, nm	23—32

Advantages

The material can be used as analog of graphite anode materials. It has a higher specific capacity than graphite and can sustain a current load of up to 5340 (6 C)

Stage of Development. Suggestions for Commercialization

IRL5, TRL4
The electrode material is proposed

IPR Protection

IPR2, IPR3

Contact Information

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