



Technical Data Sheet

ACS Material Silicon Nanoparticles

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Contact Information:

Manufacturer: ACS Material, LLC.

Address: 959 E Walnut St., Suite 100,

Pasadena, CA 91106, USA

Phone: (866)-227-0656

Fax: (781)-518-0284

E-Mail: contact@acsmaterial.com

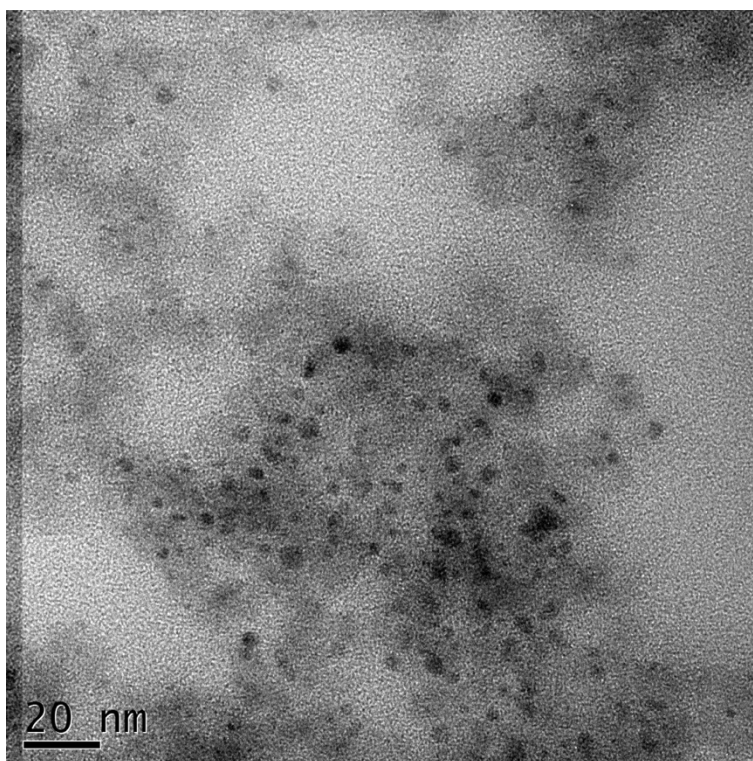
Revision: 0729017

1. Preparation Method

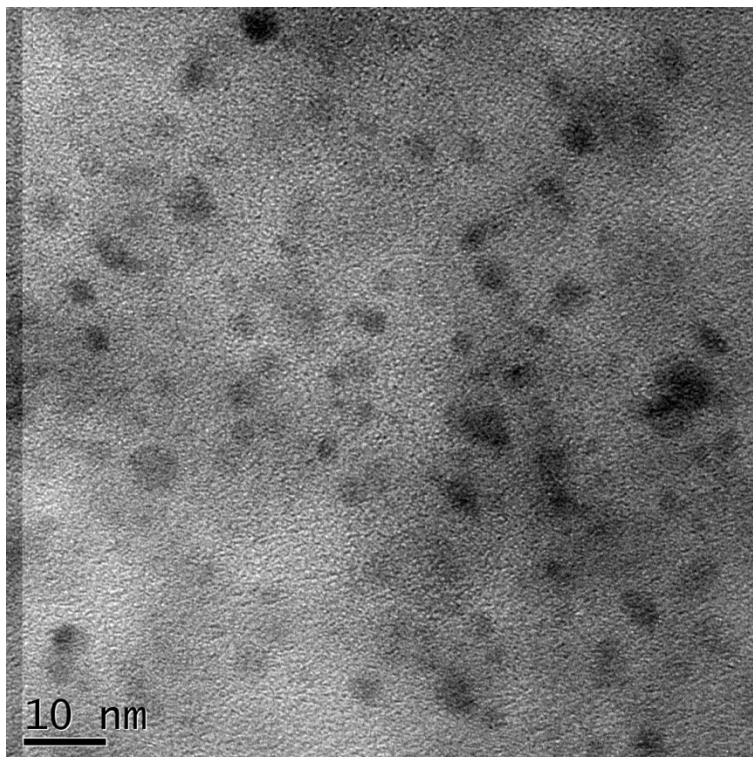
Chemical Vapor Deposition (CVD) Method

2. Characterizations

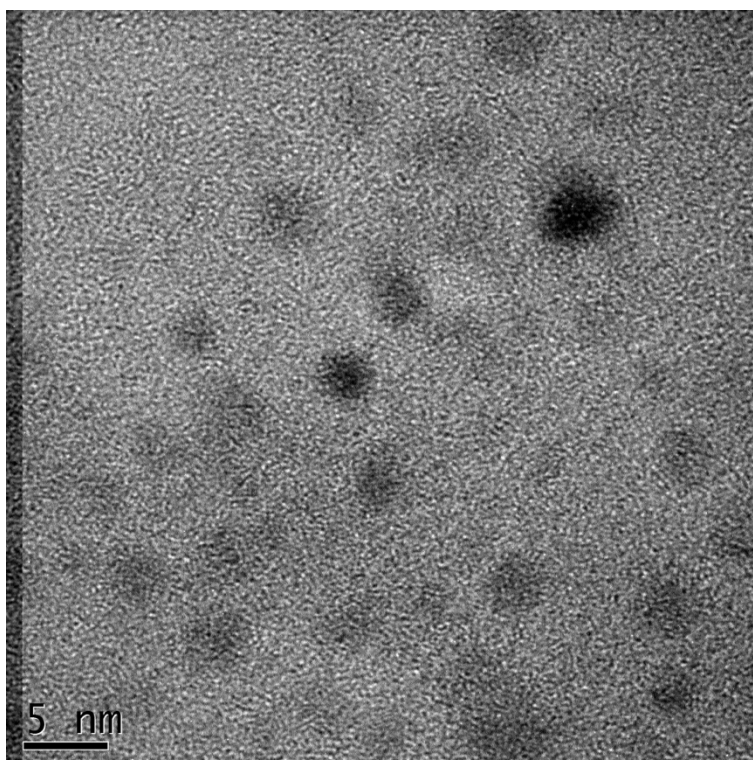
	Type: <i>A</i>	<i>B</i>	<i>C</i>
<i>Atomic Weight (g/mol):</i>	28.08	28.08	28.08
<i>Morphology:</i>	Spherical powder	Spherical powder	Spherical powder
<i>Average Particle Size (nm):</i>	3	15	30
<i>Spherical rate (%):</i>	100	100	100
<i>Purity (%):</i>	>99.99	>99.99	>99.99
<i>BET Surface Area (m²/g):</i>	~257	~80	~42.4



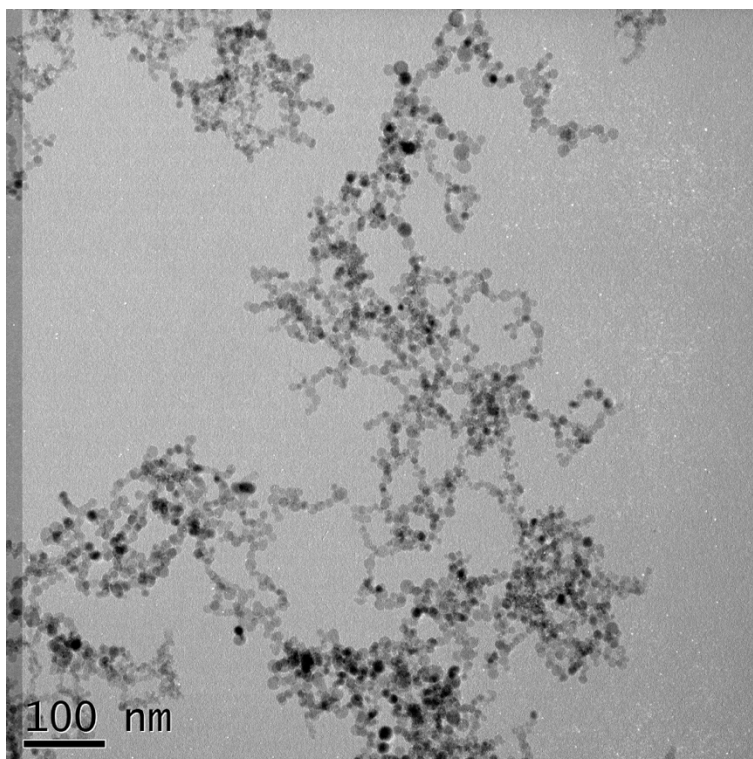
Typical TEM Image of ACS Material Silicon Nanoparticles-Type A (1)



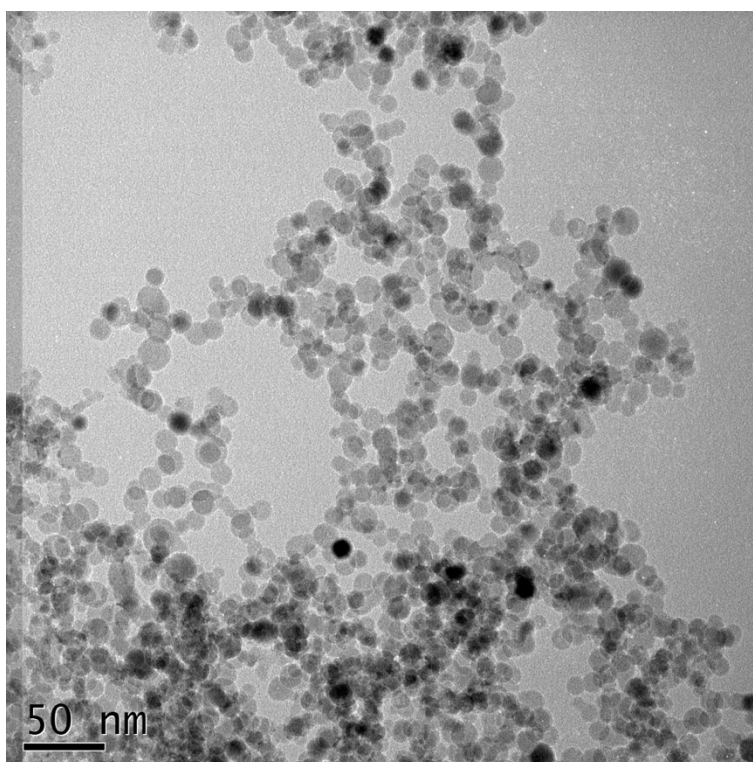
Typical TEM Image of ACS Material Silicon Nanoparticles-Type A (2)



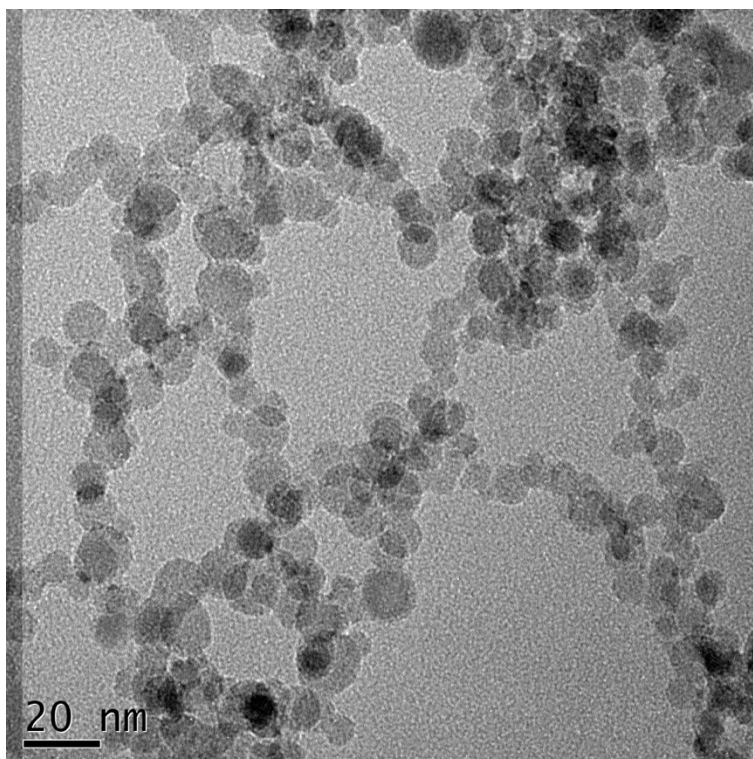
Typical TEM Image of ACS Material Silicon Nanoparticles-Type A (3)



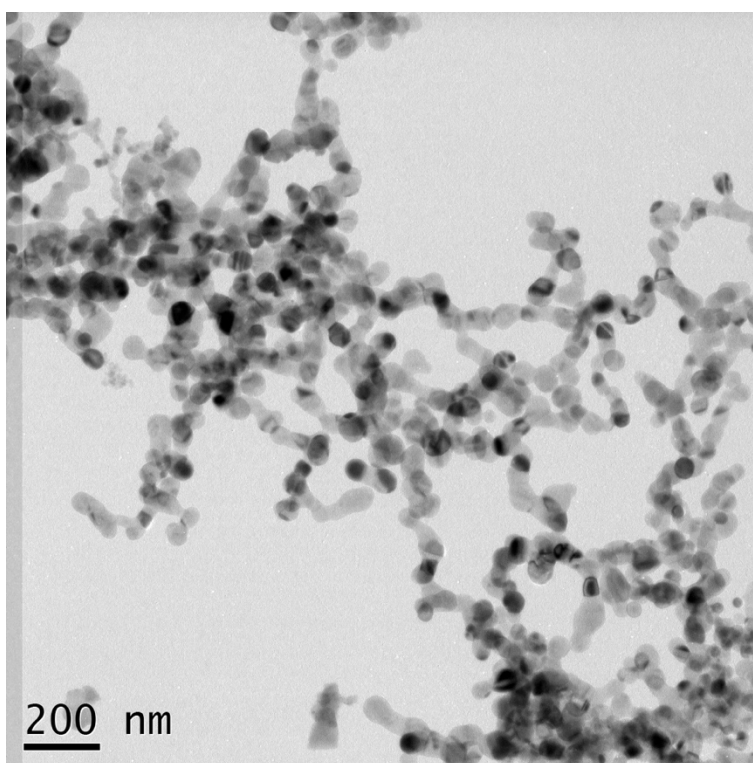
Typical TEM Image of ACS Material Silicon Nanoparticles-Type B (1)



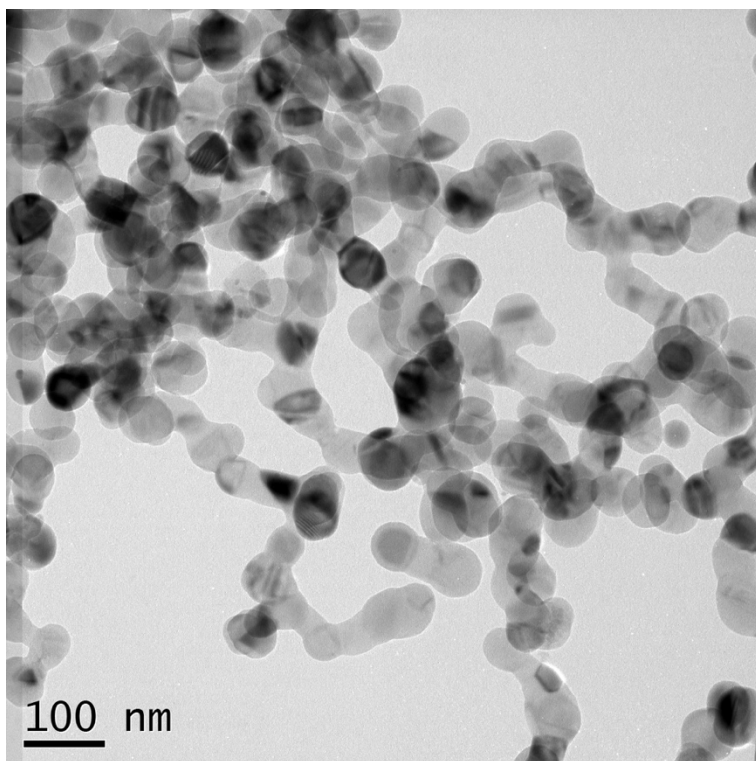
Typical TEM Image of ACS Material Silicon Nanoparticles- Type B (2)



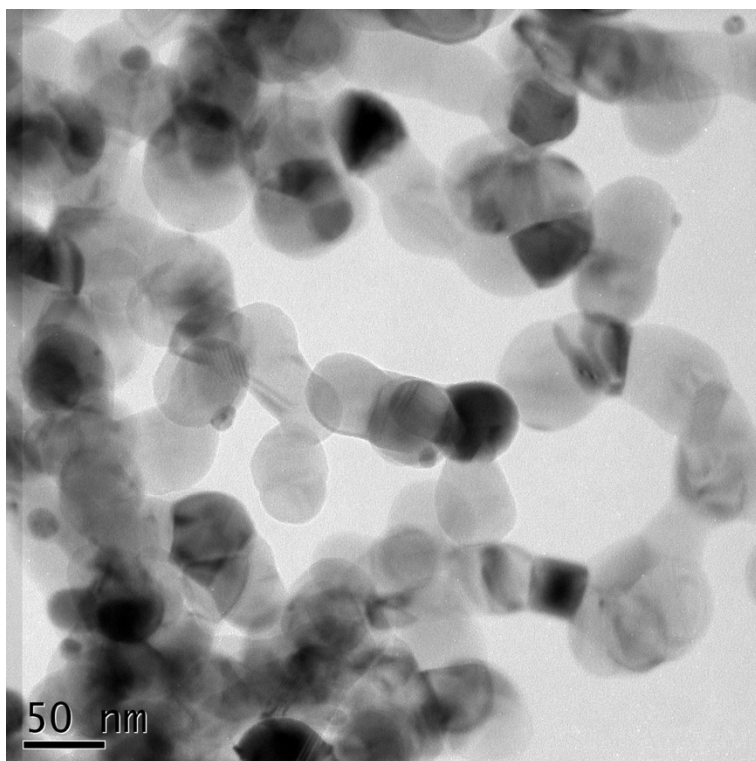
Typical TEM Image of ACS Material Silicon Nanoparticles- Type B (3)



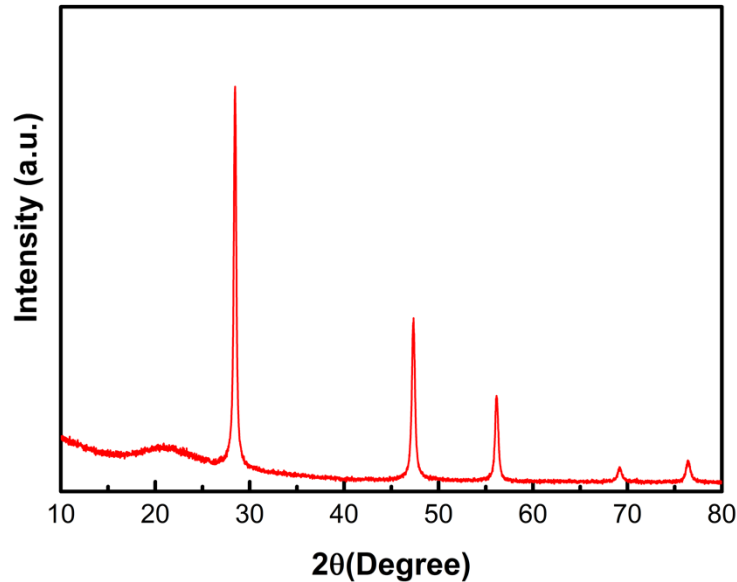
Typical TEM Image of ACS Material Silicon Nanoparticles-Type C (1)



Typical TEM Image of ACS Material Silicon Nanoparticles- Type C (2)



Typical TEM Image of ACS Material Silicon Nanoparticles- Type C (3)



XRD Analysis of ACS Material Silicon Nanoparticles

3. Application Fields

- 1) Anode material in lithium-ion battery (LIB)
- 2) Fluorescently labeled & biomedical
- 3) Semiconductor & solar photovoltaic
- 4) Coated refractory
- 5) Lubricant materials

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