



Technical Data Sheet

ACS Material Silicon nanoparticles

Table of Contents

[1 – Preparation Method](#)

[2 – Characterizations](#)

[3 – Application Fields](#)

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

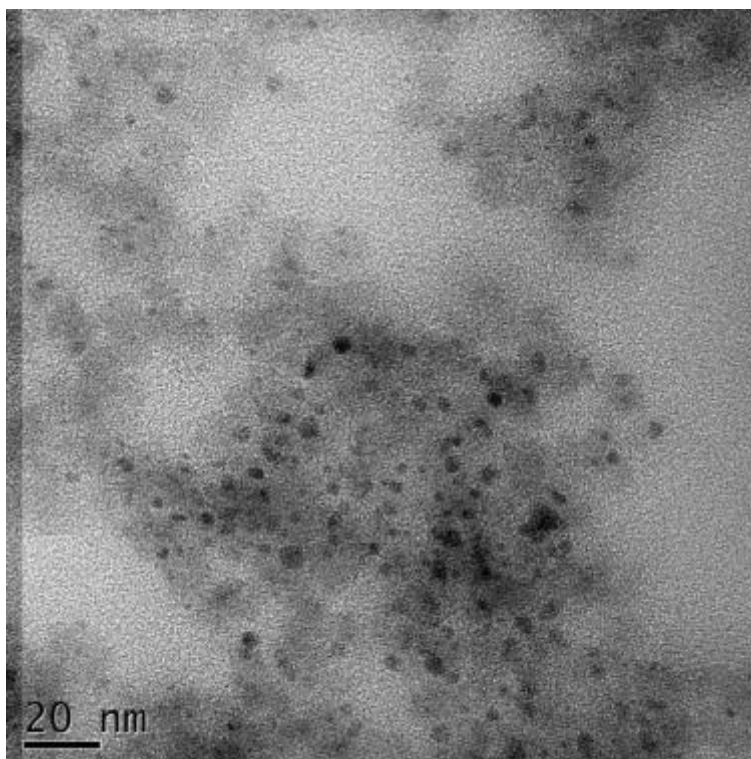
Revision: 0729017

1. Preparation Method

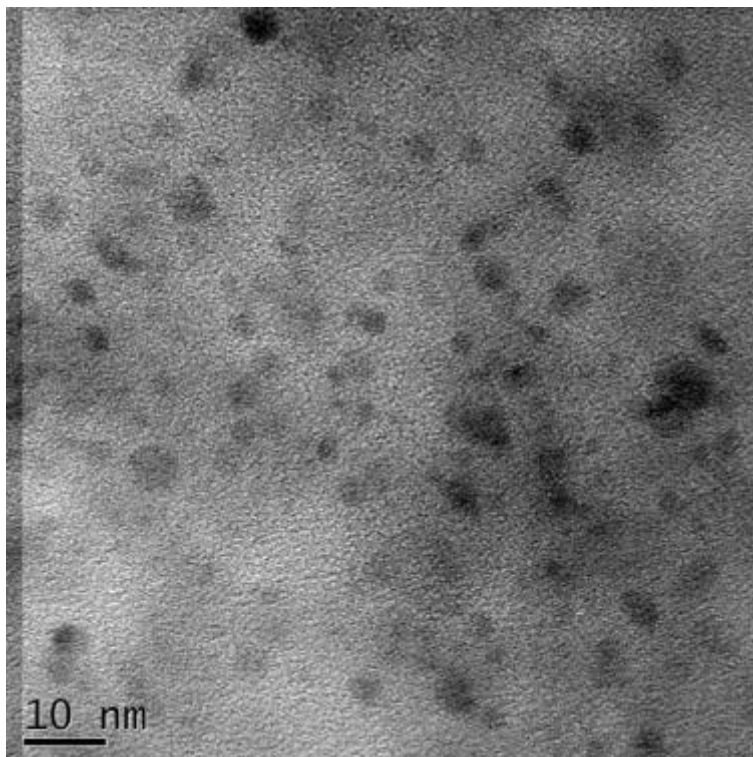
Chemical Vapor Deposition (CVD) Method

2. Characterizations

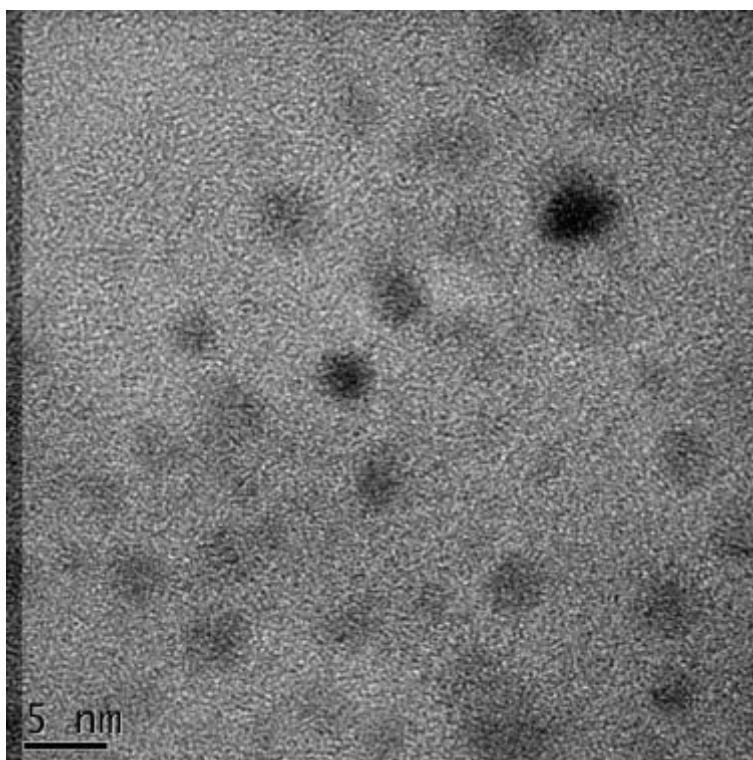
	Type: A	B	C
Atomic Weight (g/mol):	28.08	28.08	28.08
Morphology:	Spherical powder	Spherical powder	Spherical powder
Average Particle Size (nm):	3	15	30
Spherical rate (%):	100	100	100
Purity (%):	>99.99	>99.99	>99.99
BET Surface Area (m ² /g):	~257	~257	~257



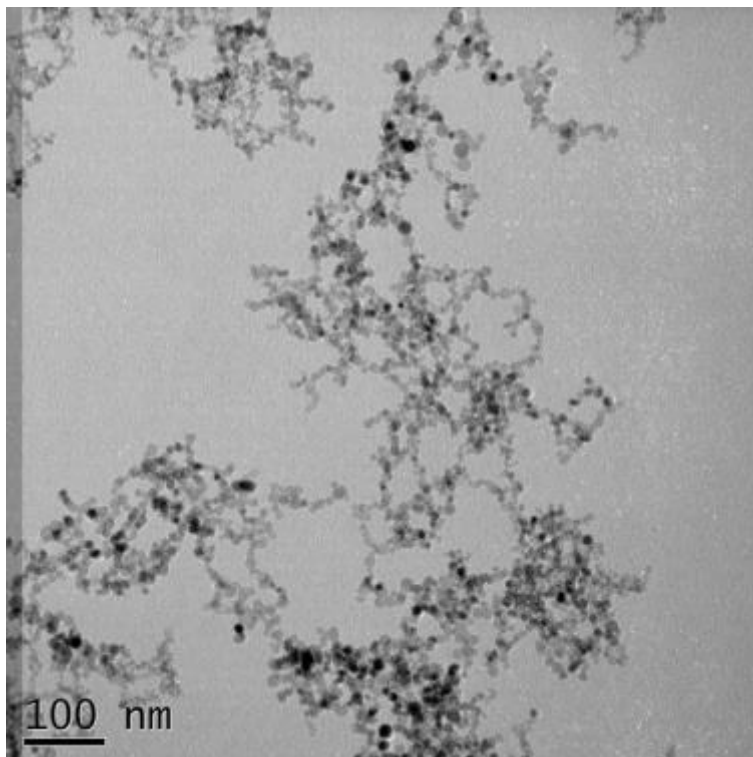
Typical TEM Image of ACS Material Silicon nanoparticles-Type A (1)



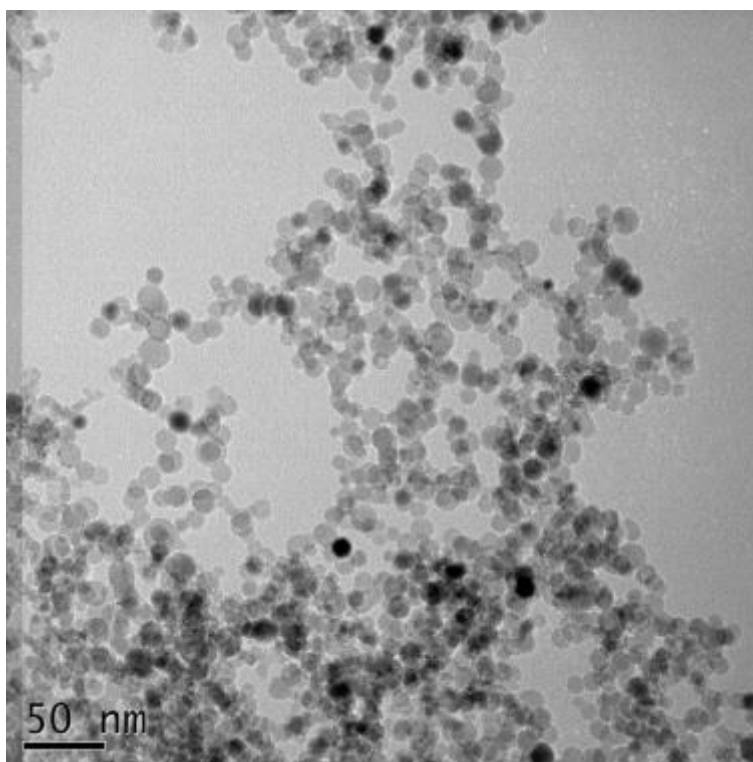
Typical TEM Image of ACS Material Silicon nanoparticles-Type A (2)



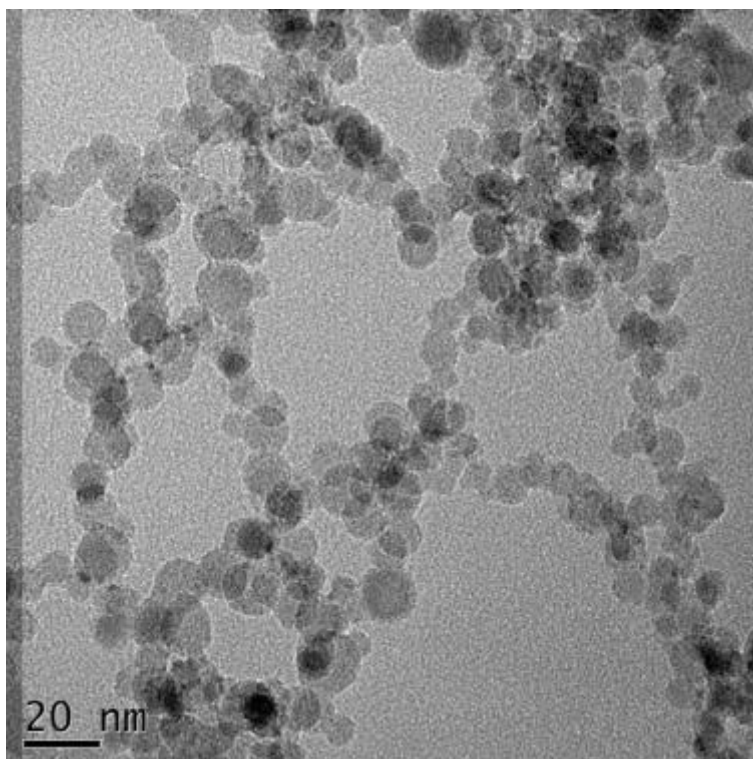
Typical TEM Image of ACS Material Silicon nanoparticles-Type A (3)



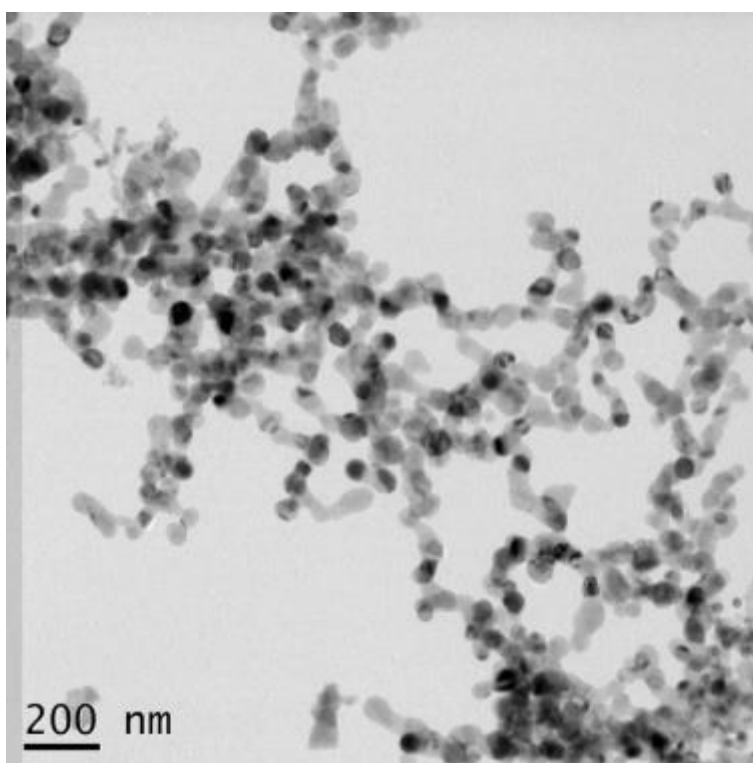
Typical TEM Image of ACS Material Silicon nanoparticles-Type B (1)



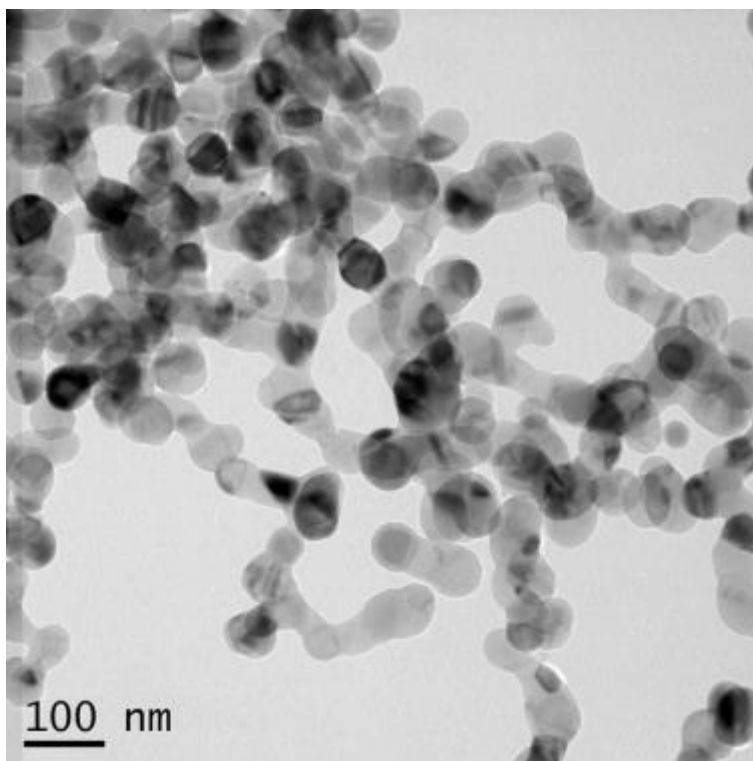
Typical TEM Image of ACS Material Silicon nanoparticles- Type B (2)



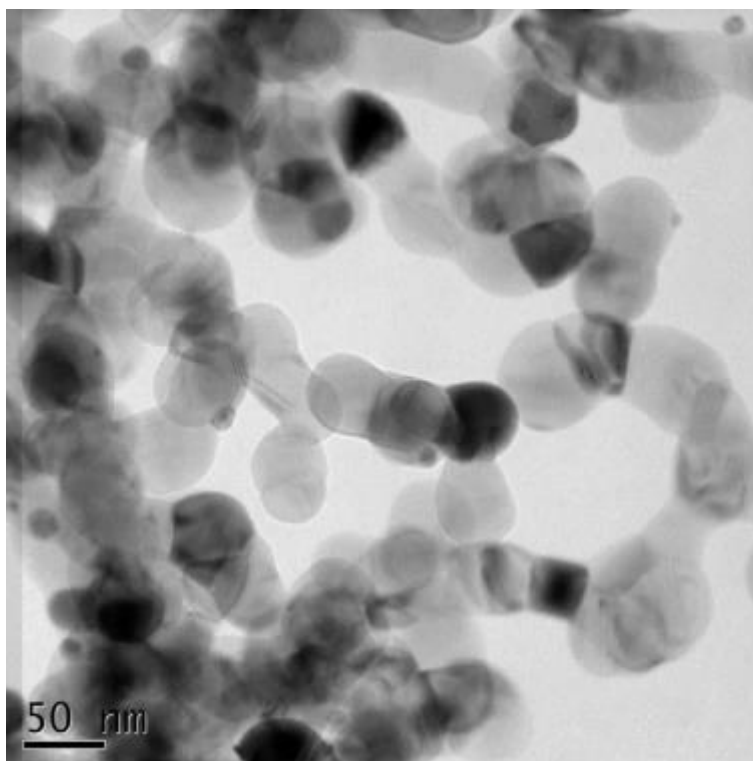
Typical TEM Image of ACS Material Silicon nanoparticles- Type B (3)



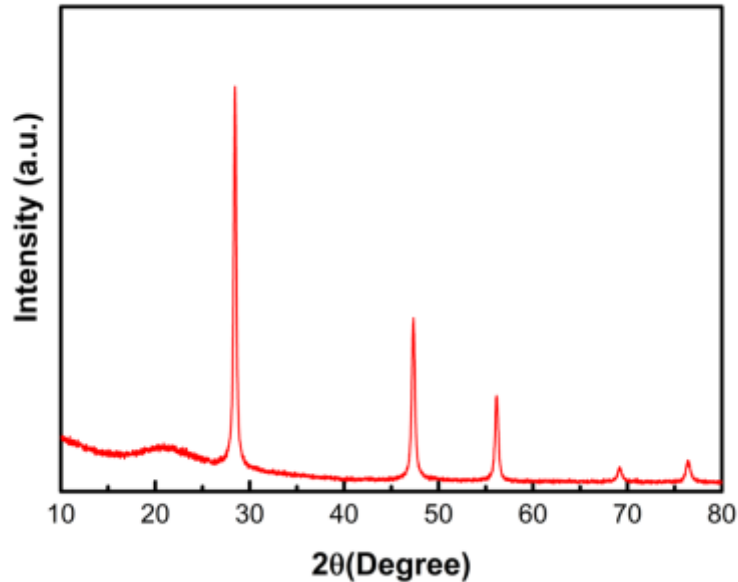
Typical TEM Image of ACS Material Silicon nanoparticles-Type C (1)



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

Disclaimer: ACS Material, LLC believes that the information in this Technical Data Sheet is accurate and represents the best and most current information available to us. ACS Material makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, ACS Material will not be responsible for damages resulting from use of or reliance upon this information.