Technical Data Sheet

ACS Material Silicon nanoparticles

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Revision: 0729017
1. Preparation Method
Chemical Vapor Deposition (CVD) Method

2. Characterizations

<table>
<thead>
<tr>
<th>Type:</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atomic Weight (g/mol):</td>
<td>28.08</td>
<td>28.08</td>
<td>28.08</td>
</tr>
<tr>
<td>Morphology:</td>
<td>Spherical powder</td>
<td>Spherical powder</td>
<td>Spherical powder</td>
</tr>
<tr>
<td>Average Particle Size (nm):</td>
<td>3</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Spherical rate (%):</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>BET Surface Area (m²/g):</td>
<td>~257</td>
<td>~257</td>
<td>~257</td>
</tr>
</tbody>
</table>

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)
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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