Technical Data Sheet

ACS Material Cerium Oxide (CeO₂)

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Revision: 012419
1. Preparation Method

NA

2. Characterizations

<table>
<thead>
<tr>
<th></th>
<th>Type A</th>
<th>Type B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purity</td>
<td>&gt;99.99%</td>
<td>&gt;99.99%</td>
</tr>
<tr>
<td>Particle Size</td>
<td>10-30 nm</td>
<td>50-80 nm</td>
</tr>
<tr>
<td>BET Surface Area</td>
<td>~ 60 m$^2$/g</td>
<td>~ 30 m$^2$/g</td>
</tr>
<tr>
<td>Apparent Density</td>
<td>1.6 g/cm$^3$</td>
<td>1.6 g/cm$^3$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Concentration (ppm):</th>
<th>La$_2$O$_3$ (REO): ≤0.03</th>
<th>Pr$<em>{6}$O$</em>{11}$ (REO): ≤0.04</th>
<th>Fe$_2$O$_3$: ≤0.01</th>
<th>SiO$_2$: ≤0.02</th>
<th>CaO: ≤0.01</th>
<th>Al$_2$O$_3$: ≤0.02</th>
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</tr>
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</table>

TEM Image of ACS Material CeO$_2$ (Type A: 10-30 nm)
TEM Image of ACS Material CeO$_2$ (Type A: 10-30 nm)

TEM Image of ACS Material CeO$_2$ (Type B: 50-80 nm)
TEM Image of ACS Material CeO$_2$ (Type B: 50-80 nm)

XRD Analysis of ACS Material Cerium Oxide (CeO$_2$)
3. Application Fields

- High efficiency catalyst, manufacture phosphors and precision polishing, chemical additives, electronic ceramics, structural ceramics, UV absorbers, battery materials, etc.

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