



Control of Morphology by Sonochemical Reaction

Guest Editor:

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Message from the Guest Editor

We have been synthesizing nanoparticles of calcium compounds using ultrasound for a long time. Our method is simple without extra additives. For calcium carbonate, particles of about 20 nm were rapidly synthesized by ultrasonication while blowing CO₂ gas into a calcium hydroxide suspension, and an unprecedented ACC was also synthesized. In the synthesis of hydroxyapatite, the difference between ultrasound irradiation and stirring was clarified. Furthermore, we succeeded in synthesizing the world's smallest level of 7 nm (specific surface area: 300 m²/g) hydroxyapatite by ultrasonication in the Ca (OH)₂-H₃PO₄-H₂O reaction. Currently, we are investigating properties such as the sinterability and sedimentation of synthesized nanoparticles.

Keywords:

Calcium carbonate;

- Hydroxyapatite
- Ultrasonication
- Nano-sized
- Atomization





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Message from the Editor-in-Chief

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