

Special Issue

Control of Morphology by Sonochemical Reaction

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

Guest Editor

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Deadline for manuscript submissions

closed (10 October 2021)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/64826

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mdpi.com/journal/

[applsci](https://doi.org/10.3390/applsci)





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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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