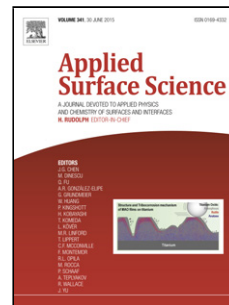


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Influence of Pulse Frequency on Synthesis of Nano and Submicrometer Spherical Particles by Pulsed Laser Melting in Liquid

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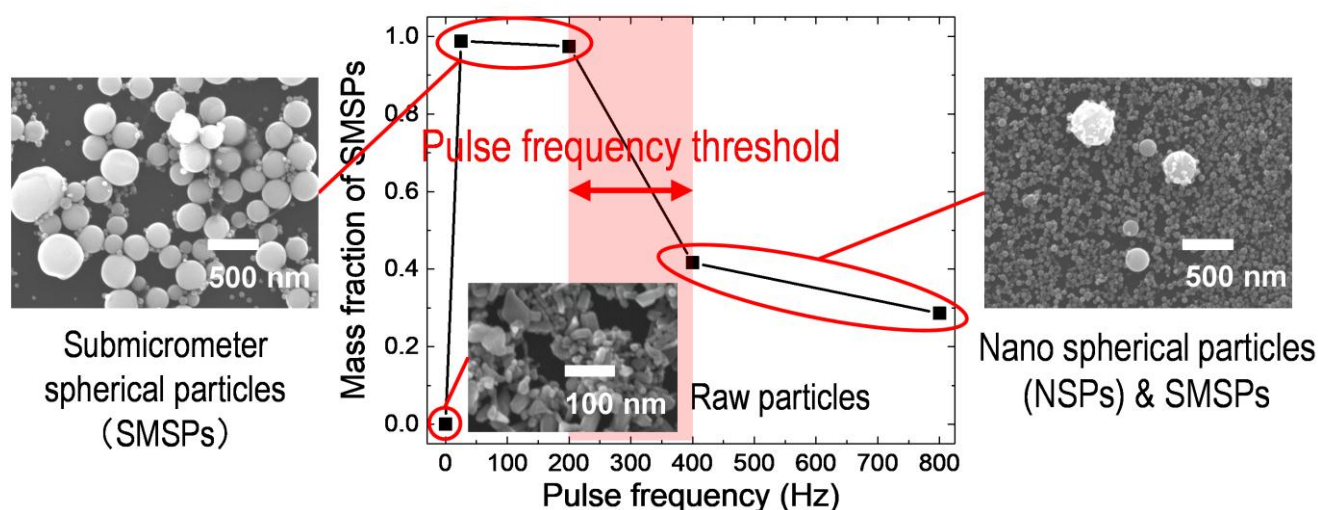
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Graphical abstract



Highlights

- Submicrometer spherical particles were fabricated at various pulse frequencies.
- Production efficiency was improved by a high-frequency laser.
- Spherical nanoparticles were formed above the pulse frequency threshold.
- The effect of the liquid temperature on the pulsed laser heating was estimated.

Abstract

Submicrometer spherical particles (SMSPs) are reported to be fabricated by pulsed laser irradiation with a frequency of 10 or 30 Hz onto raw nanoparticles dispersed in liquid. Here, the effect of the pulse frequency on particles obtained by laser irradiation onto the suspension in a vessel, especially at higher pulse frequencies up to

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