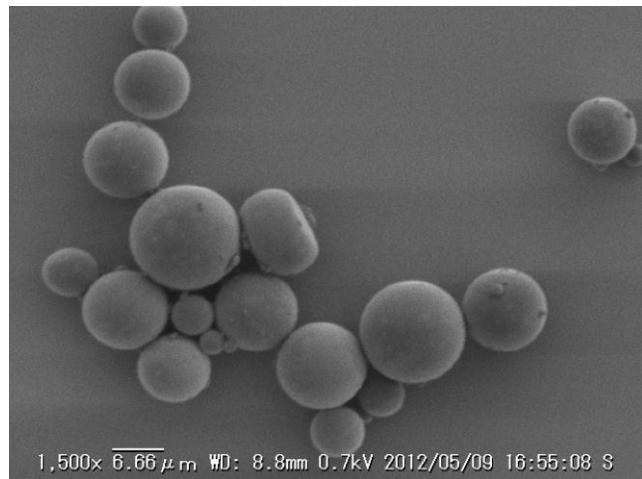


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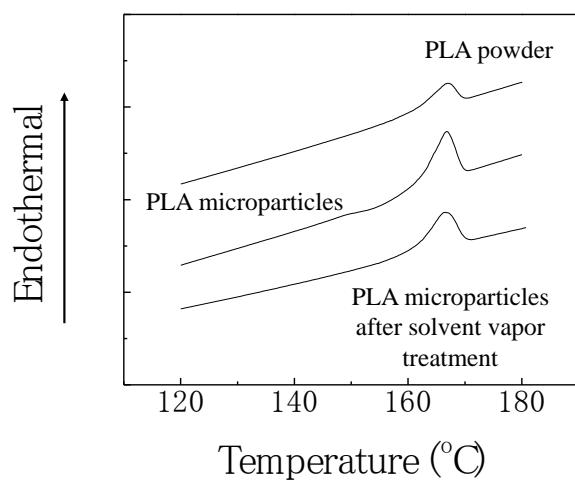
## **Preparation of Poly(lactic-acid)-particle stabilized Liquid Marble and the Improvement of Its Stability by Uniform Shell Formation Upon Solvent Vapor Exposure**

*By Daisuke Matsukuma, Hirohmi Watanabe, Myo Minn, Aya Fujimoto, Takamichi Shinohara, Hiroshi Jinnai and Atsushi Takahara*

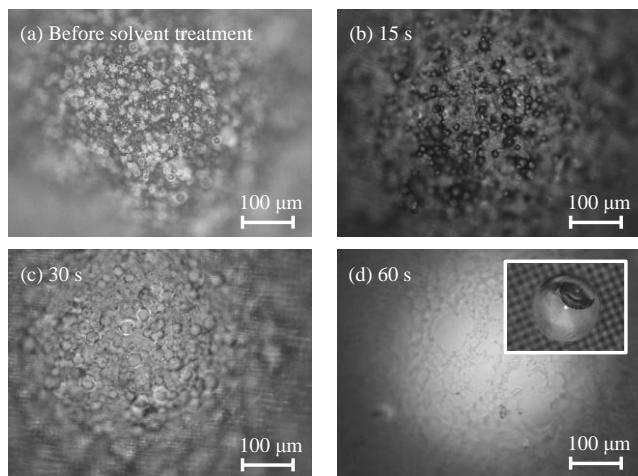
*Japan Science and Technology Agency, ERATO, Takahara Soft Interfaces Project, CE80, Kyushu University, 744 Motooka, Nishi-ku, Fukuoka 819-0395, Japan*



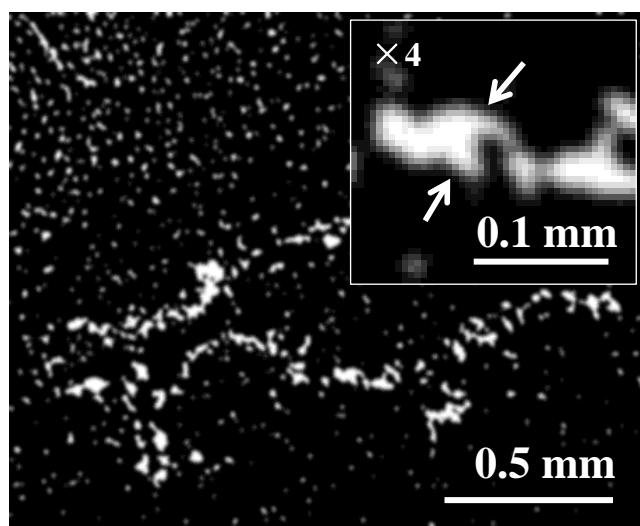
**Fig. S1** SEM photograph of PLA microparticles which are dispersed on a Si substrate.



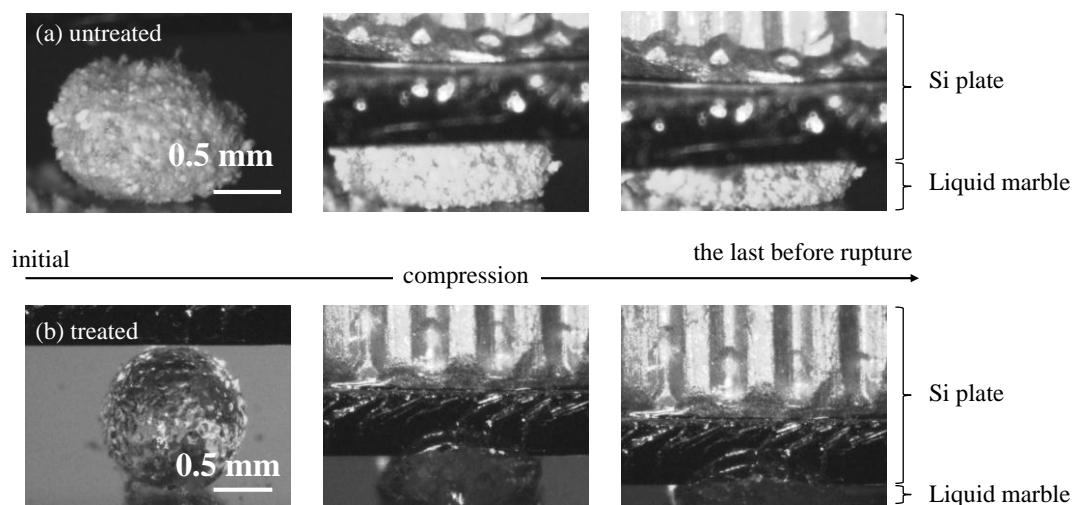
**Fig. S2** DSC raw data of PLA before microparticulation, PLA microparticles, and PLA microparticles after solvent vapor treatment.



**Fig. S3** Optical microscopic images of the PLA shell layer: (a) before solvent vapor treatment, and after treating for (b) 15 s, (c) 30 s, and (d) 60 s (inset: over-roll view of the liquid marble).



**Fig. S4** Cross-sectional image of PLA without solvent vapor treatment (inset: magnified image of the PLA shell layer).



**Fig. S5** Side-views of liquid marbles during the compression.

