Supporting information

Hyper alginate gel microbead formation by molecular diffusion at the hydrogel/droplet interface

Hirotada Hirama,* Taisuke Kambe, Kyouhei Aketagawa, Taku Ota, Hiroyuki Moriguchi, [†] Toru Torii

Department of Human and Engineered Environmental Studies, Graduate School of Frontier Sciences, The University of Tokyo, 5-1-5, Kashiwanoha, Kashiwa-shi, Chiba 277-8563, Japan

S1. Detail of a microfluidic device

A microfluidic device consists of a fused silica glass chip (a microchannel) made by deep reactive ion etching $(DRIE)^1$. The microchannel geometry of the chip is shown in figure S1.

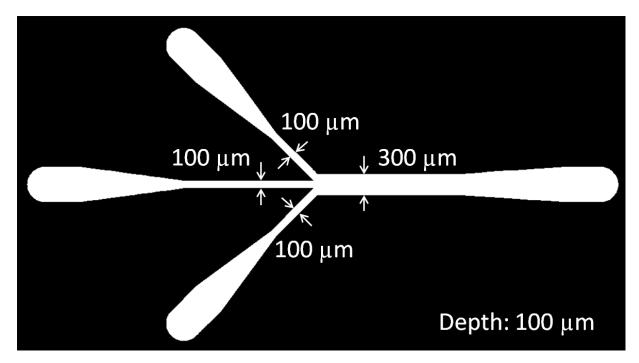


Figure S1. Microchannel geometry used in this study.

1. Nisisako, T.; Torii, T., Microfluidic large-scale integration on a chip for mass production of monodisperse droplets and particles. *Lab on a chip* **2008**, 8, (2), 287-93.

S2. Size reproducibility of the obtained gel microbeads

Using our method, the gel microbeads are reproducibly produced without any buffering agents, as shown in Figure S2.

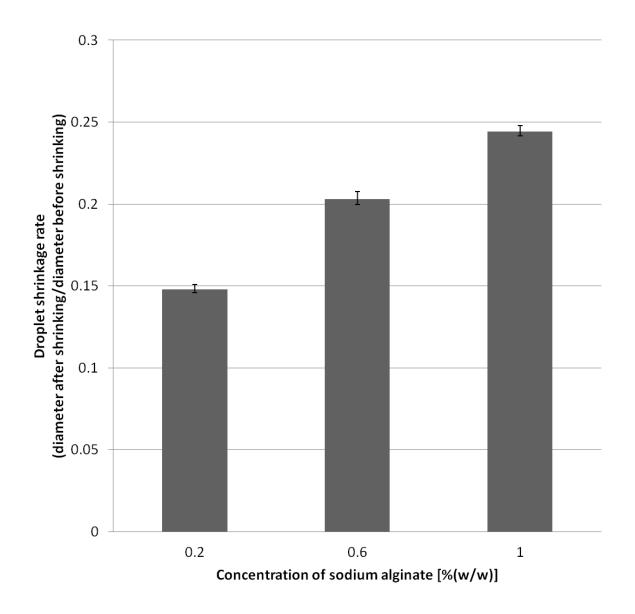


Figure S2. Sizes of the obtained gel microbeads. The experiment was performed six times.