

Supplementary Information

Synthesis of Bioactive Microcapsules Using a Microfluidic Device. *Sensors* 2012, 12, 10136–10147

**Byeong Il Kim^{1,2,†}, Soon Woo Jeong^{1,2,†}, Kyoung G. Lee¹, Tae Jung Park³, Jung Youn Park⁴,
Jae Jun Song⁵, Seok Jae Lee^{1,*} and Chang-Soo Lee^{2,*}**

¹ Center for Nanobio Integration & Convergence Engineering (NICE), National Nanofab Center, 291 Daehak-ro, Yuseong-gu, Daejeon 305-806, Korea; E-Mails: kbiset@nnfc.re.kr (B.I.K.); swjeong@nnfc.re.kr (S.W.J.); kglee@nnfc.re.kr (K.G.L.)

² Department of Chemical Engineering, Chungnam National University, 220 Gung-Dong, Yuseong-gu, Daejeon 305-764, Korea

³ Department of Chemistry, Chung-Ang University, 84 Heukseok-ro, Dongjak-gu, Seoul 156-756, Korea; E-Mail: tjpark@cau.ac.kr

⁴ Biotechnology Research Division, National Fisheries Research & Development Institute (NFRDI), 408-1 Sirang-ri, Gijang, Busan 619-705, Korea; E-Mail: jypark@nfrdi.go.kr

⁵ Microbe-based Fusion Technology Research Center, KRIBB, 1404 Sinjeong-dong, Jeongeup, Jeonbuk 580-185, Korea; E-Mail: jjsong@kribb.re.kr

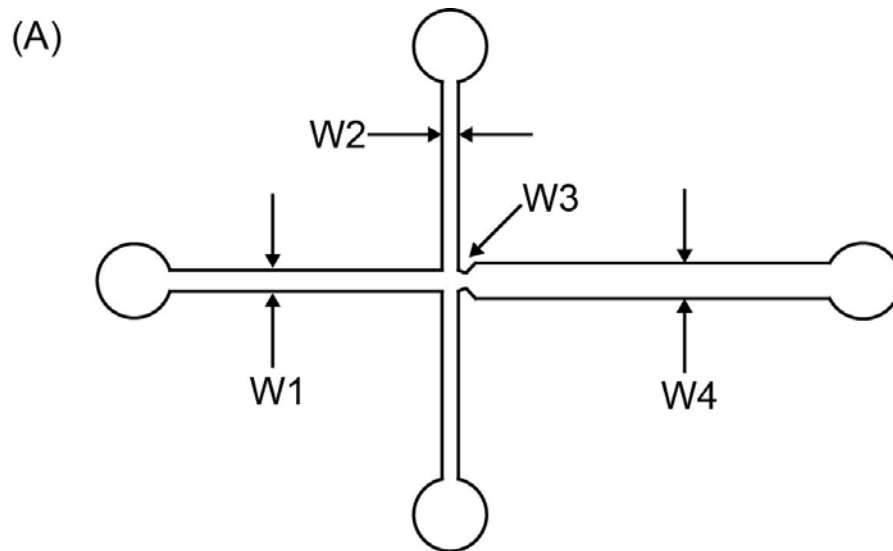
† These authors contributed equally to this work.

* Authors to whom correspondence should be addressed; E-Mails: sjlee@nnfc.re.kr (S.J.L.); rhadum@cnu.ac.kr (C.-S.L.); Tel.: +82-42-879-9722 (S.J.L.); Fax: +82-42-879-9609 (S.J.L.); Tel.: +82-42-821-5896 (C.-S.L.); +82-42-822-8995 (C.-S.L.).

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Figure S1. (A) Schematic illustration of microfluidic device and its dimensions; (B) Photograph of microfluidic device.



Dimensions

$W1=180\ \mu\text{m}$, $W2=280\ \mu\text{m}$, $W3=50\ \mu\text{m}$, $W4=580\ \mu\text{m}$,
Channel Height= $100\ \mu\text{m}$

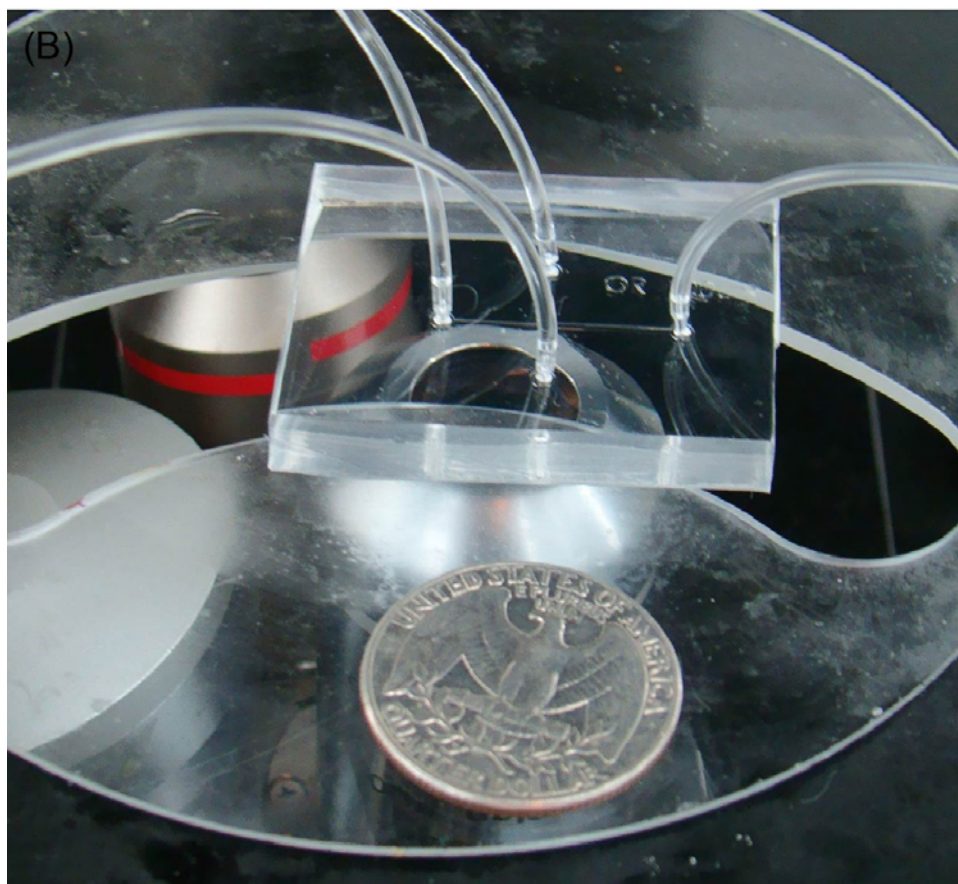


Figure S2. Photomicrographs showing the droplets of different sizes at the fixed DP (1 $\mu\text{L}/\text{min}$) with five different flow rates of CP. (A) $Q_{\text{CP}1} = 1 \mu\text{L}/\text{min}$; (B) $Q_{\text{CP}2} = 2 \mu\text{L}/\text{min}$; (C) $Q_{\text{CP}3} = 3 \mu\text{L}/\text{min}$; (D) $Q_{\text{CP}4} = 4 \mu\text{L}/\text{min}$; (E) $Q_{\text{CP}5} = 5 \mu\text{L}/\text{min}$. All scale bars are 500 μm .

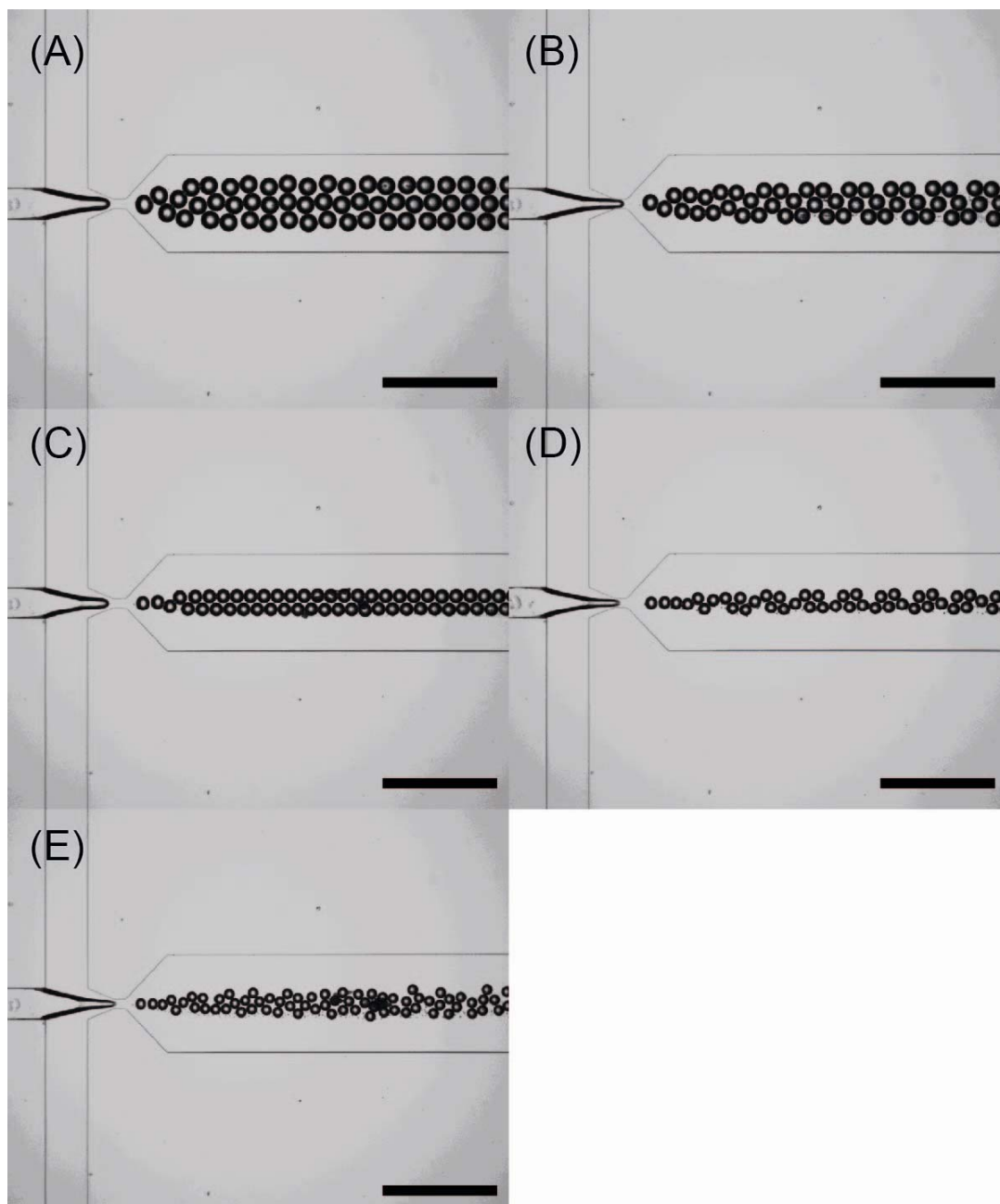


Figure S3. Photomicrographs showing the droplets of different sizes at the fixed DP (2 $\mu\text{L}/\text{min}$) with five different flow rates of CP. (A) $Q_{\text{CP1}} = 1 \mu\text{L}/\text{min}$; (B) $Q_{\text{CP2}} = 2 \mu\text{L}/\text{min}$; (C) $Q_{\text{CP3}} = 3 \mu\text{L}/\text{min}$; (D) $Q_{\text{CP4}} = 4 \mu\text{L}/\text{min}$; (E) $Q_{\text{CP5}} = 5 \mu\text{L}/\text{min}$. All scale bars are 500 μm .

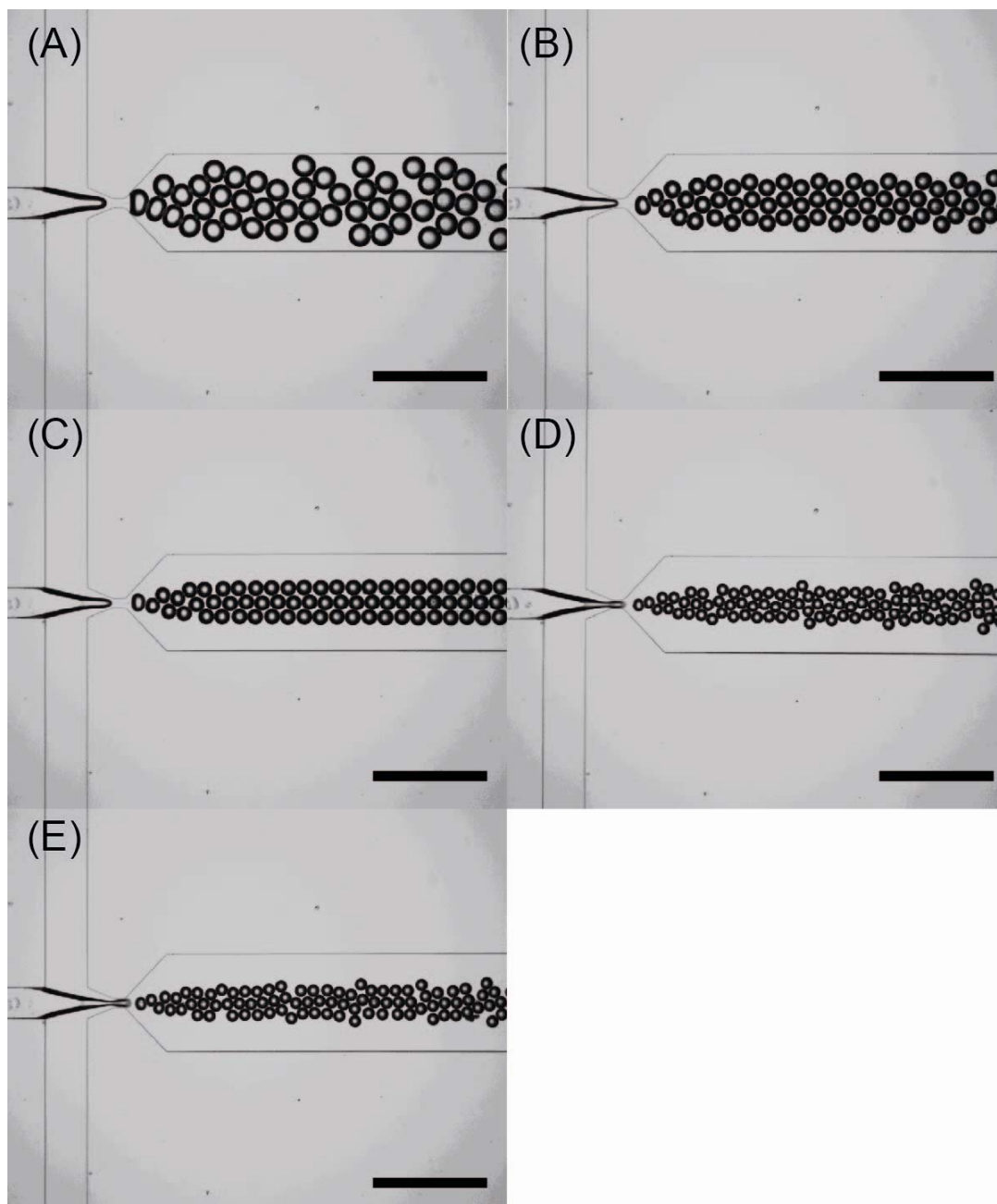


Figure S4. Photomicrographs showing the droplets of different sizes at the fixed DP ($3 \mu\text{L}/\text{min}$) with five different flow rates of CP. **(A)** $Q_{\text{CP1}} = 1 \mu\text{L}/\text{min}$; **(B)** $Q_{\text{CP2}} = 2 \mu\text{L}/\text{min}$; **(C)** $Q_{\text{CP3}} = 3 \mu\text{L}/\text{min}$; **(D)** $Q_{\text{CP4}} = 4 \mu\text{L}/\text{min}$; **(E)** $Q_{\text{CP5}} = 5 \mu\text{L}/\text{min}$. All scale bars are $500 \mu\text{m}$.

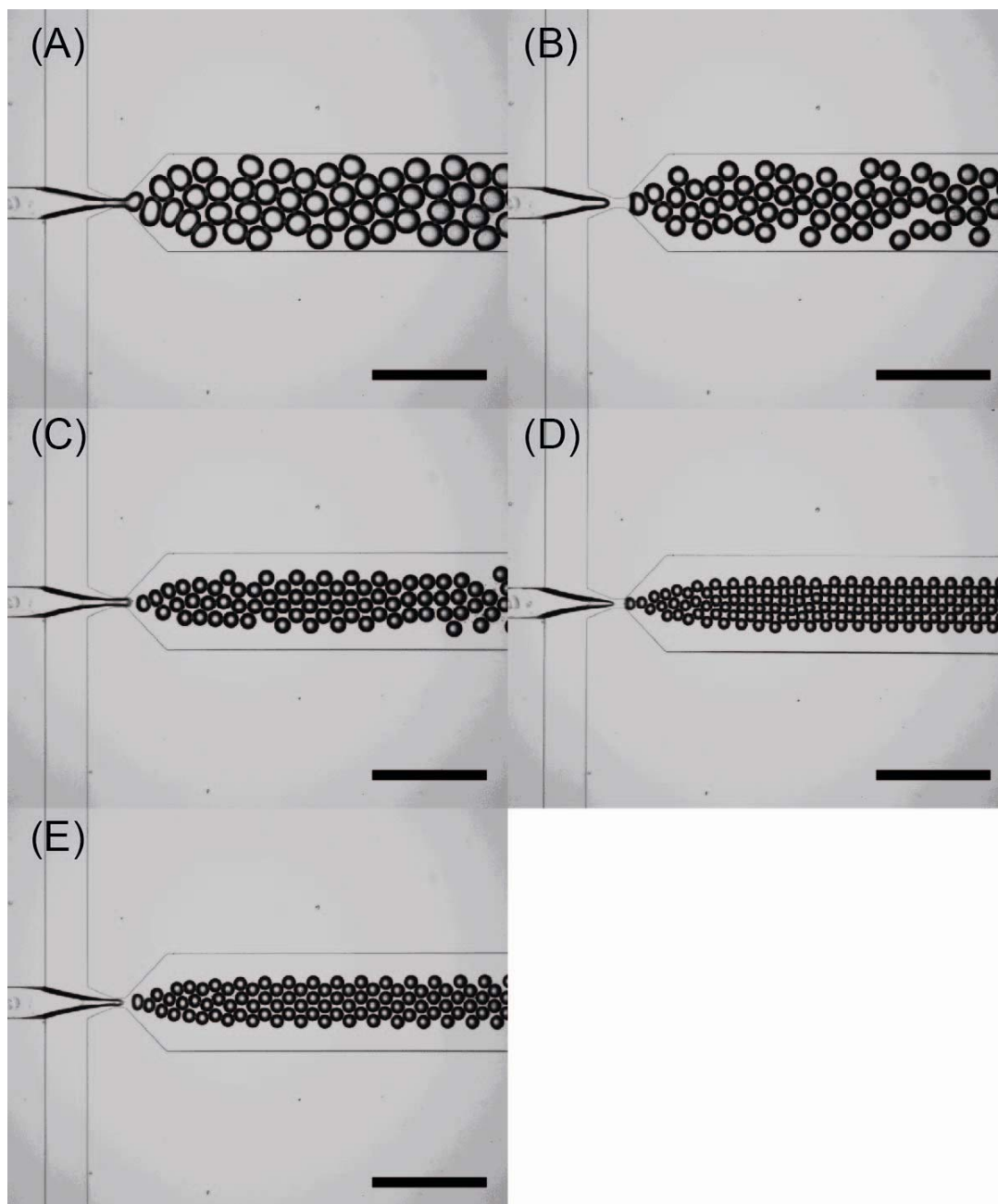


Figure S5. Photomicrographs showing the droplets of different sizes at the fixed DP (4 $\mu\text{L}/\text{min}$) with five different flow rates of CP. (A) $Q_{\text{CP1}} = 1 \mu\text{L}/\text{min}$; (B) $Q_{\text{CP2}} = 2 \mu\text{L}/\text{min}$; (C) $Q_{\text{CP3}} = 3 \mu\text{L}/\text{min}$; (D) $Q_{\text{CP4}} = 4 \mu\text{L}/\text{min}$; (E) $Q_{\text{CP5}} = 5 \mu\text{L}/\text{min}$. All scale bars are 500 μm .

