

**Supplementary information**

# **Facile Synthesis with Highly Tunable of Monodispersed Calcium Hydroxide Composite Particles by Using a Two-Step Ion Exchange Reaction**

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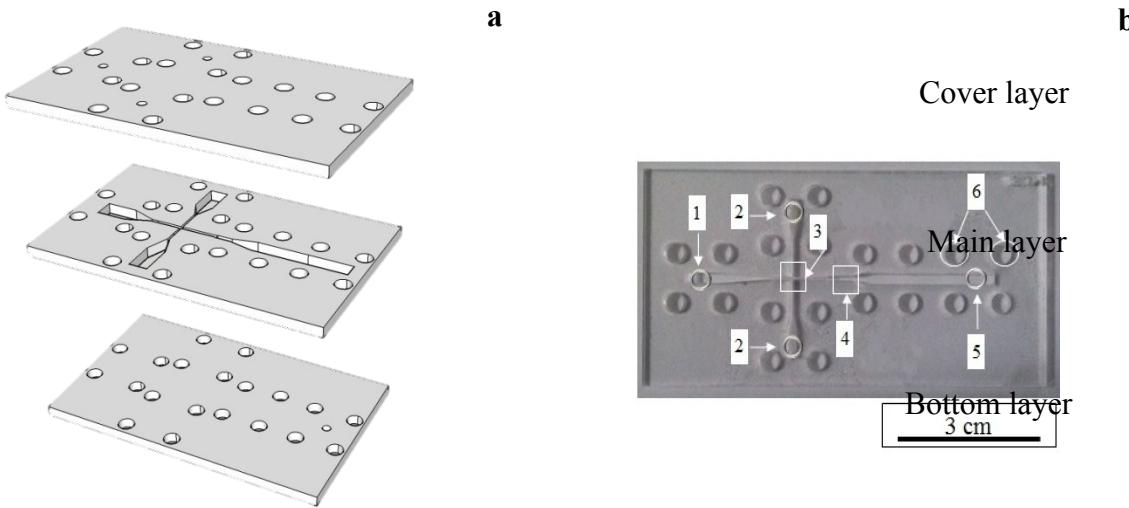
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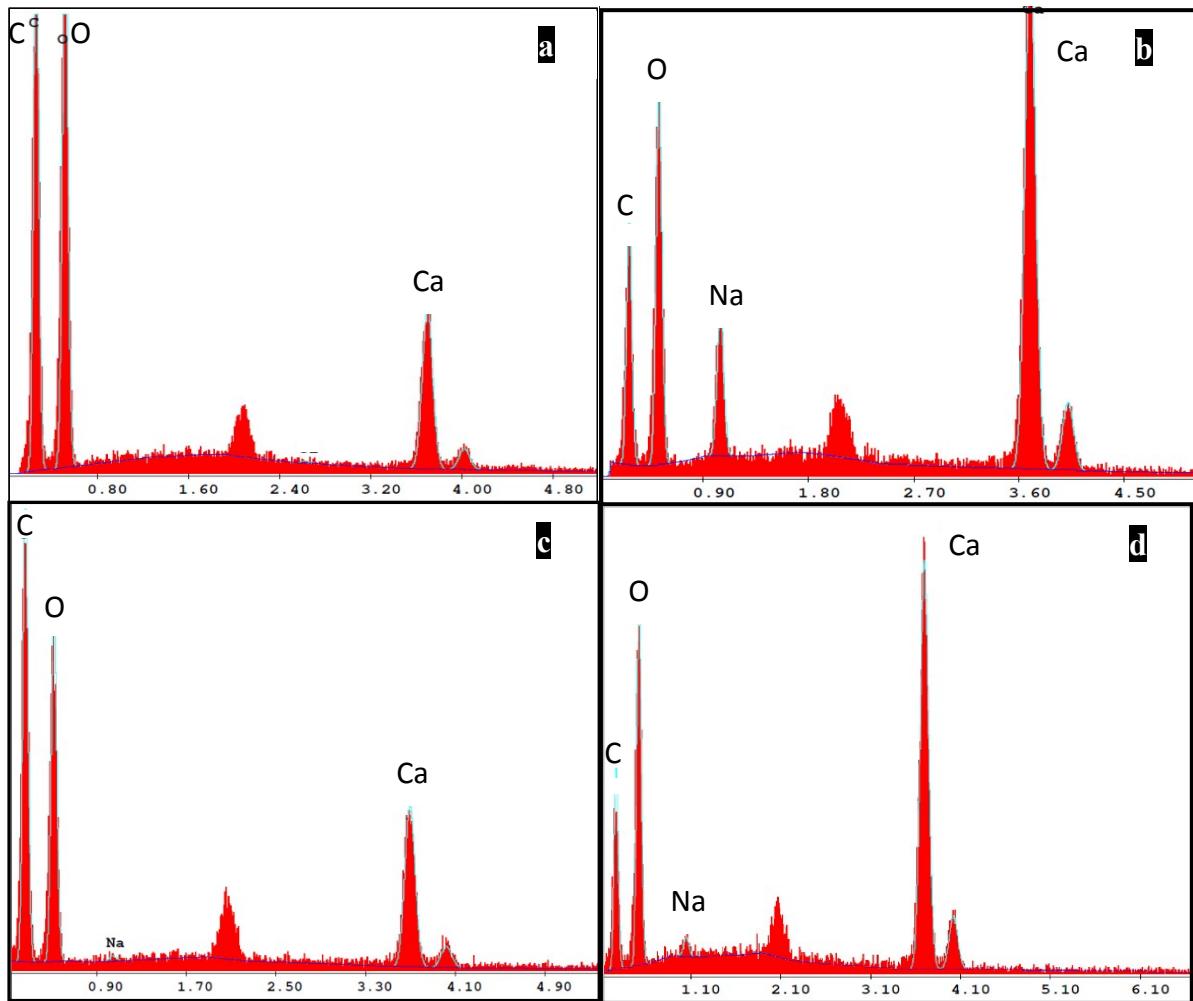
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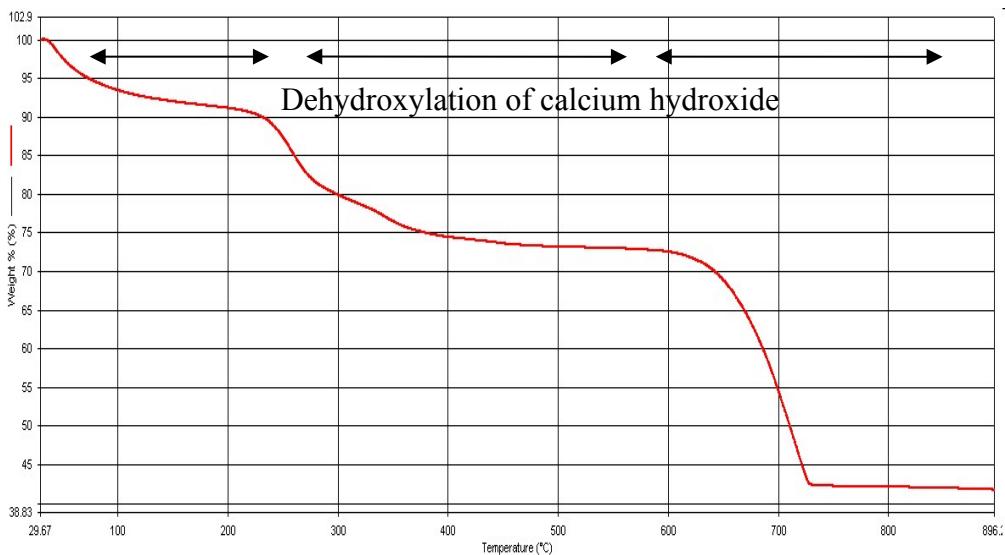
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**Fig. S1** (a) Schematic diagram of microfluidic chip in expanded view. (b) An optical image of microfluidic chip. Notes: (1) inlet of center channel, (2) inlets of side channels, (3) cross junction design, (4) broaden channel design, (5) outlet and (6) screw holes<sup>1-4</sup>.



**Fig. S2** Energy dispersive spectrometer (EDS) mappings of (a) the synthesized Ca-alginate particles and (b) the synthesized  $\text{Ca}(\text{OH})_2$  composite particles by a needle droplet method, respectively. The EDS mappings of (c) the synthesized Ca-alginate particles and (d) the synthesized  $\text{Ca}(\text{OH})_2$  composite particles by using droplet microfluidics method, respectively.



**Fig. S3** Thermogravimetric analysis of synthesized  $\text{Ca}(\text{OH})_2$  composite particles from 25 to 750 °C<sup>5</sup>.

## References

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