

Supporting Information for

# Growth of Acetaminophen Polymorphic Crystals and Solution-Mediated Phase Transition from Trihydrate to Form II in Agarose Gel

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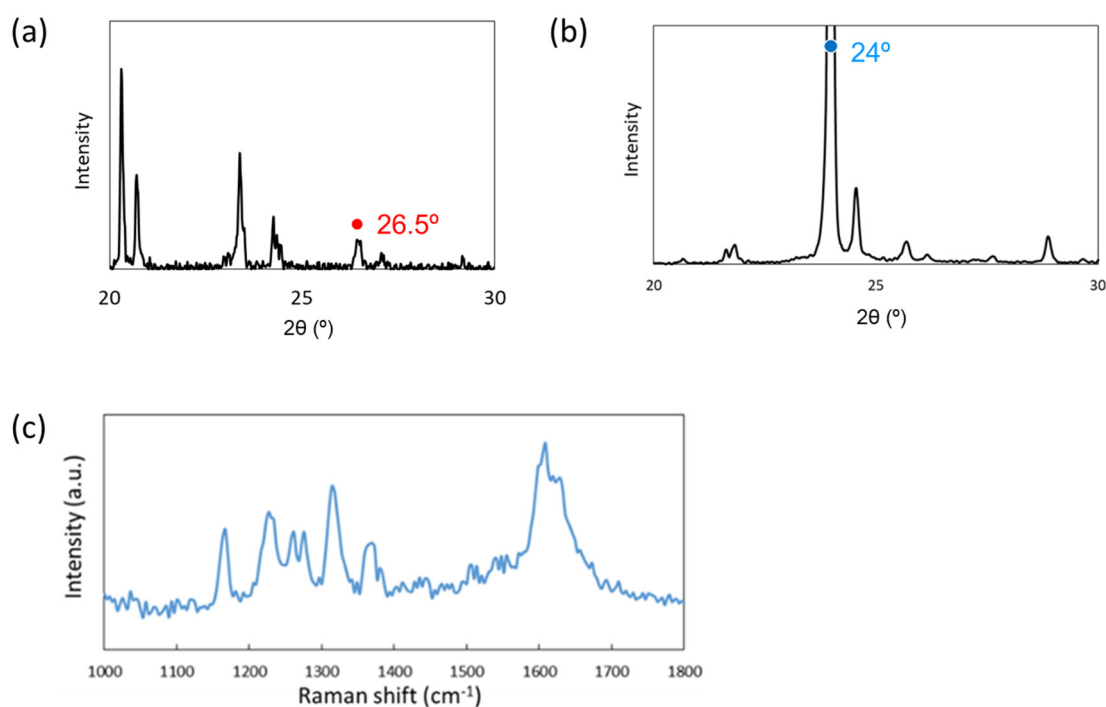
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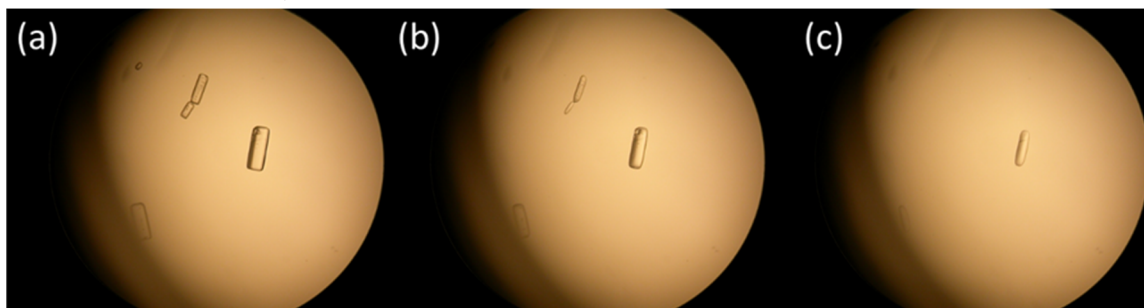
## 1. PXRD patterns and Raman spectra of acetaminophen crystals



**Figure S1.** (a) PXRD patterns of the crystals obtained in the first paragraph of Section 3.2, (b) PXRD patterns of the prism-like crystals and (c) Raman spectra of crystals obtained by seeding trihydrate, which was separately prepared in solution using a stirring ball.

Forms I and II have characteristic peaks at around  $26.5$  and  $24^\circ$ , respectively, by PXRD [1]. Figure S1a shows that the PXRD patterns of the crystals matched well with those of form I. Figure S1b shows that the PXRD patterns of the crystals matched well with those of form II. Figure S1c shows that the obtained Raman spectra of the crystals matched that previously reported for trihydrate [2].

## 2. Dissolution of a form II crystal



**Figure S2.** Dissolution of a form II crystal. After (a) 2 min, (b) 6 min and (c) 10 min.

## References

1. Mori, Y.; Maruyama, M.; Takahashi, Y.; Ikeda, K.; Fukukita, S.; Yoshikawa, H.; Okada, S.; Adachi, H.; Sugiyama, S.; Takano, K.; Murakami, S.; Matsumura, H.; Inoue, T.; Yoshimura, M.; Mori, Y. Selective crystallization of metastable phase of acetaminophen by ultrasonic irradiation. *Appl. Phys. Express* 2015, 8, 065501.
2. Fujimoto, R.; Maruyama, M.; Okada, S.; Adachi, H.; Yoshikawa, H.; Takano, K.; Imanishi, M.; Tsukamoto, K.; Yoshimura, M.; Mori, Y. Large-scale crystallization of acetaminophen trihydrate by a novel stirring technique. *Appl. Phys. Express* 2019, 12, 045503.