

Supporting Information

**Microanalysis of pharmaceutical cocrystals using a nano-spot method
coupled with microscopic Raman spectroscopy**

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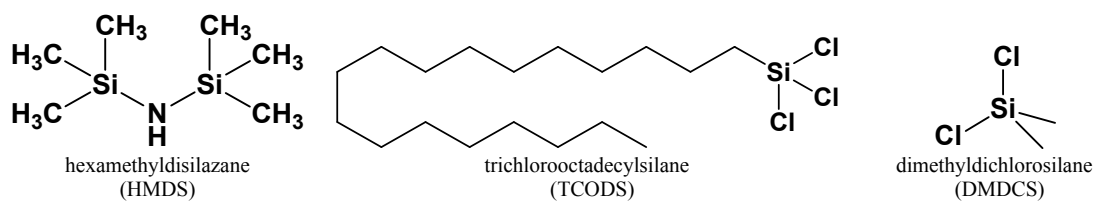


Figure S1. Chemical structure of alkyl type hydrophobized agents.



Figure S2. The image of SPOT MASTER.

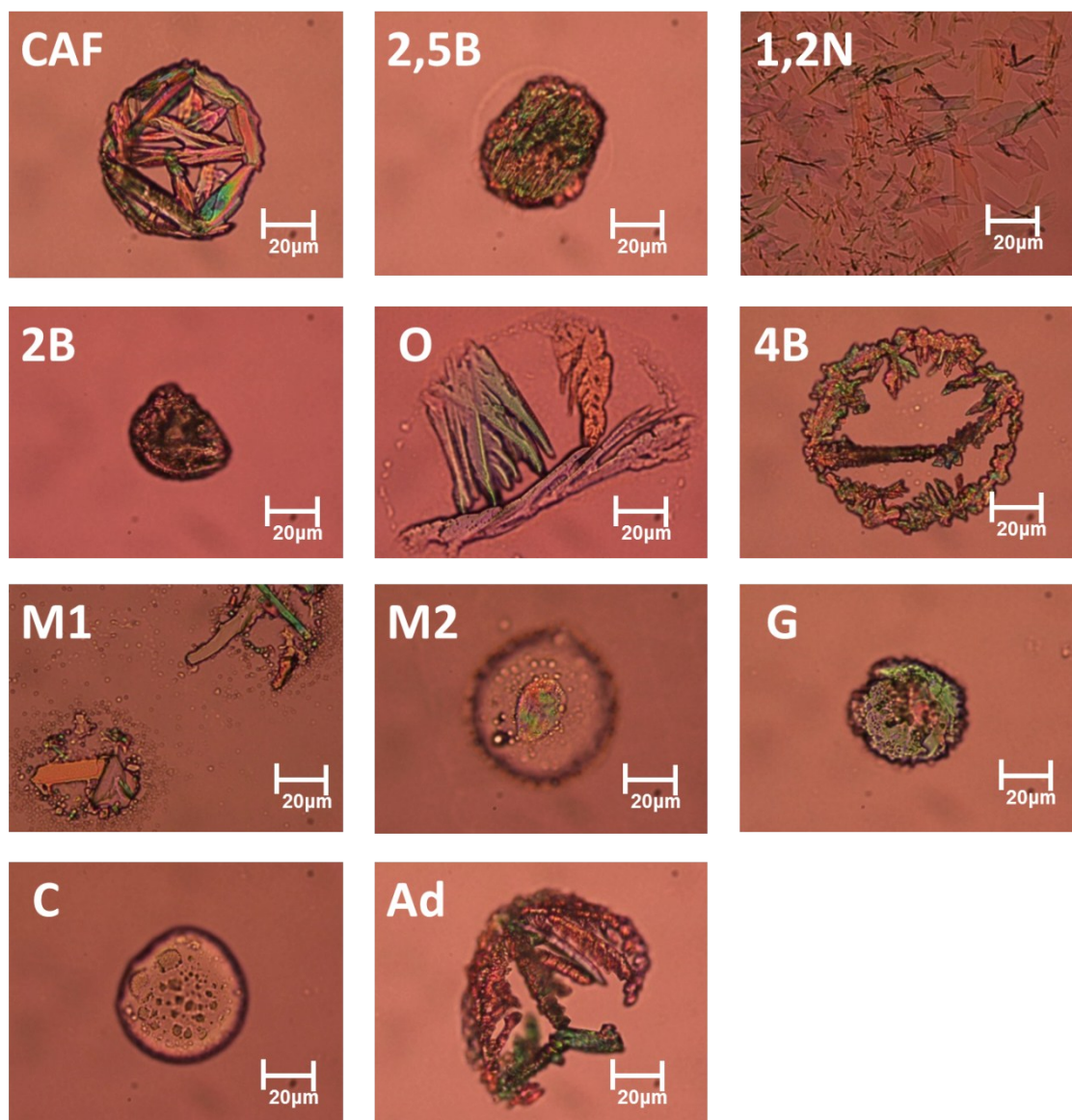


Figure S3. Crystals of CAF and coformer for measurement of Raman spectroscopy (10 ng/50 nL).

All droplets are 50 nL spotted manually, and every characters indicate the abbreviations of coformers.

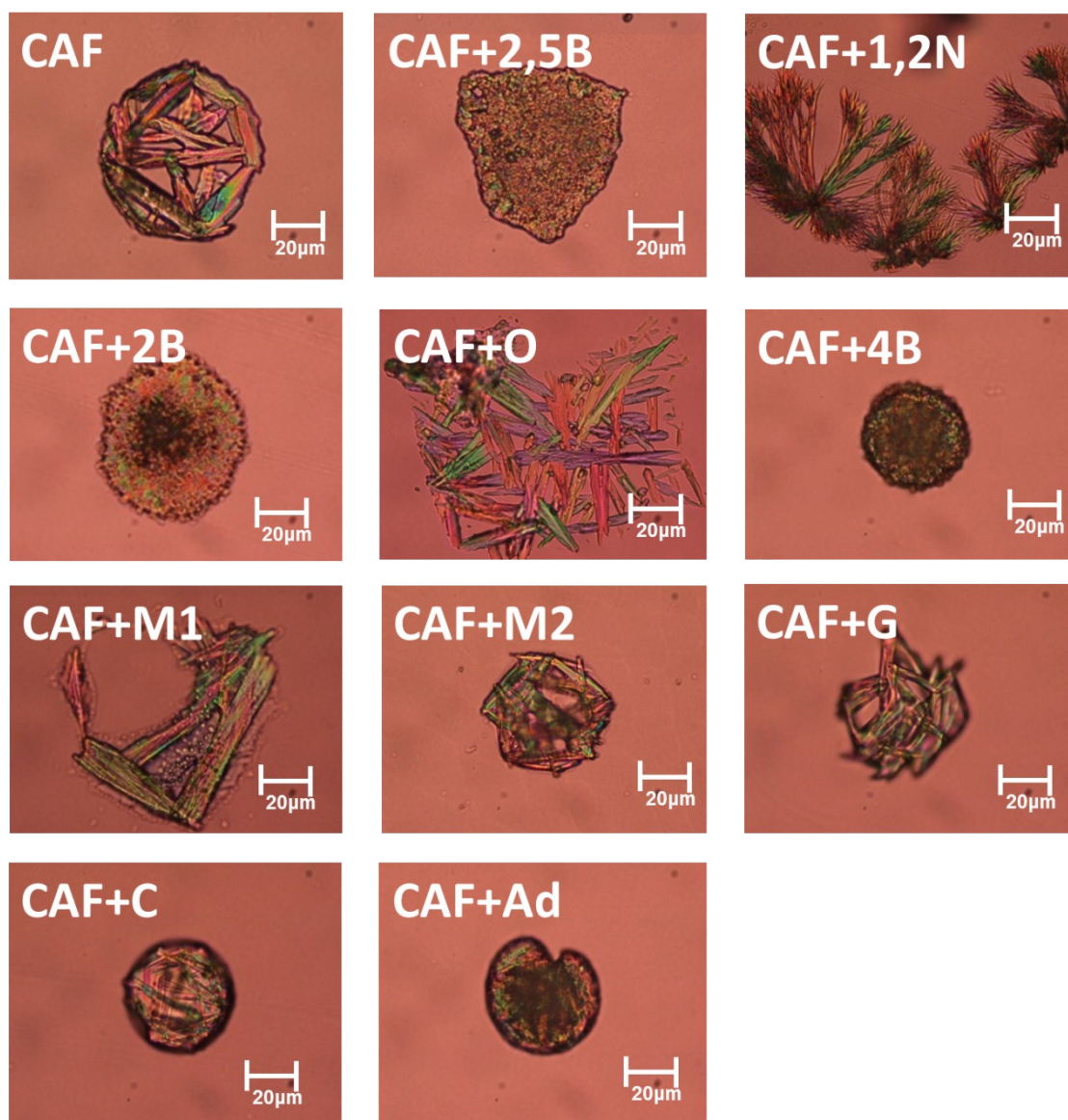


Figure S4. Crystals of CAF and mixture solution of CAF and coformer for measurement of Raman spectroscopy (10 ng/50 nL). All droplets are 50 nL spotted manually, and every characters indicate the abbreviations of caffeine and coformers.

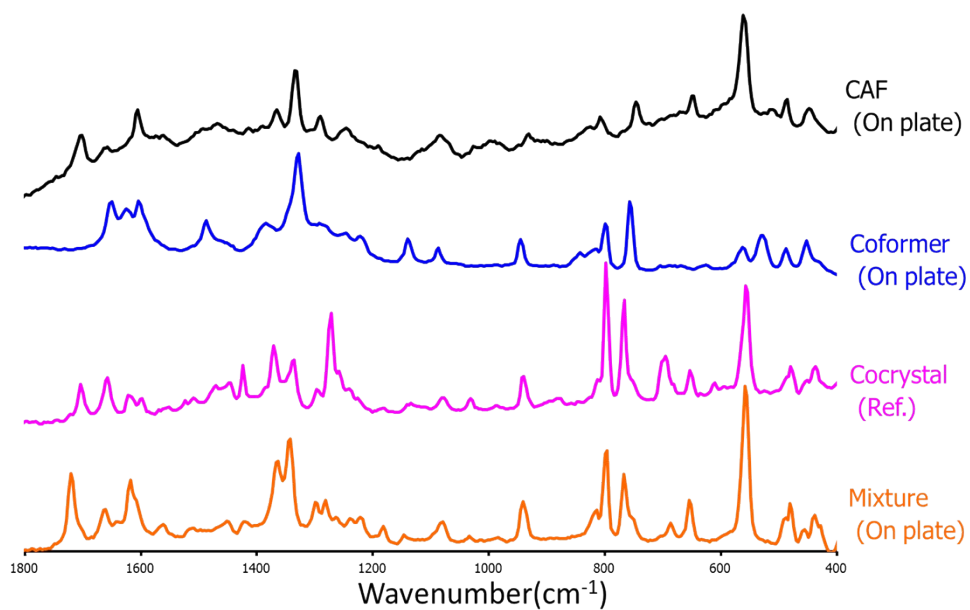


Figure S5. Raman spectra of CAF-2,5B series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and 2,5B (coformer) on the plate. “Ref.” indicates reference cocystal.

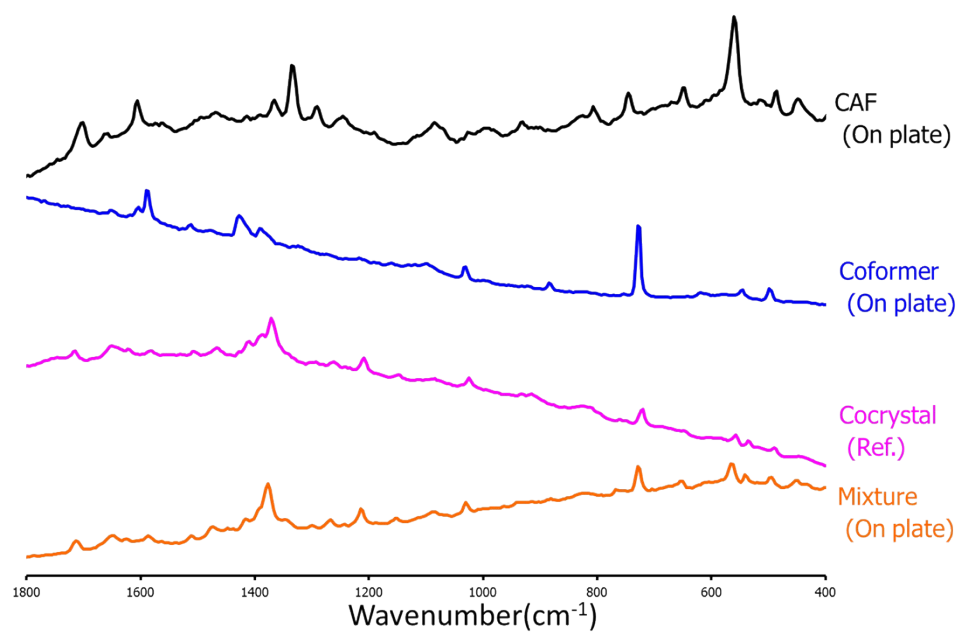


Figure S6. Raman spectra of CAF-1,2N series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and 1,2N (coformer) on the plate. “Ref.” indicates reference cocystal.

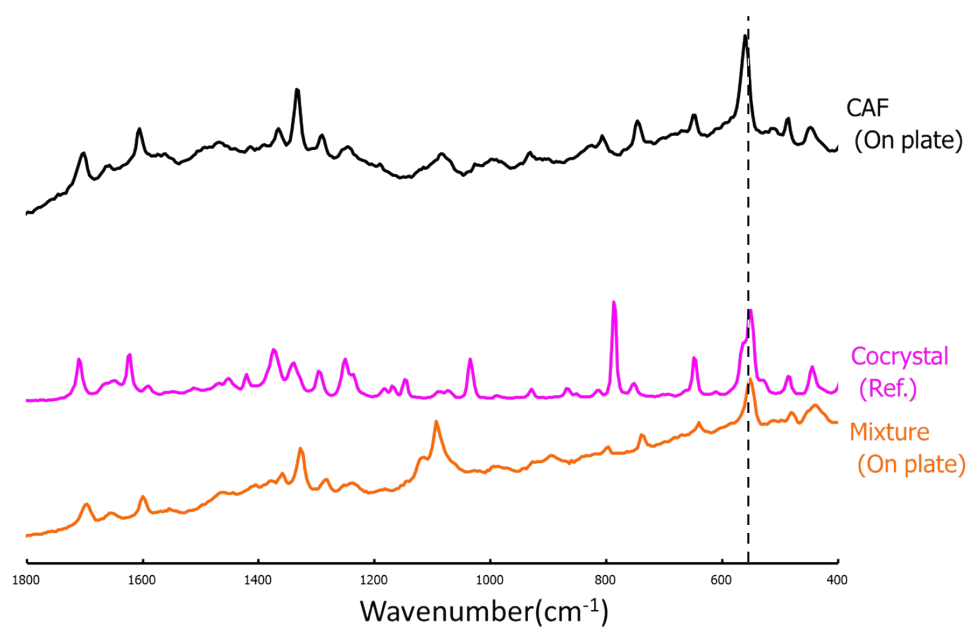


Figure S7. Raman spectra of CAF-2B series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and 2B (coformer) on the plate. “Ref.” indicates reference cocystal.

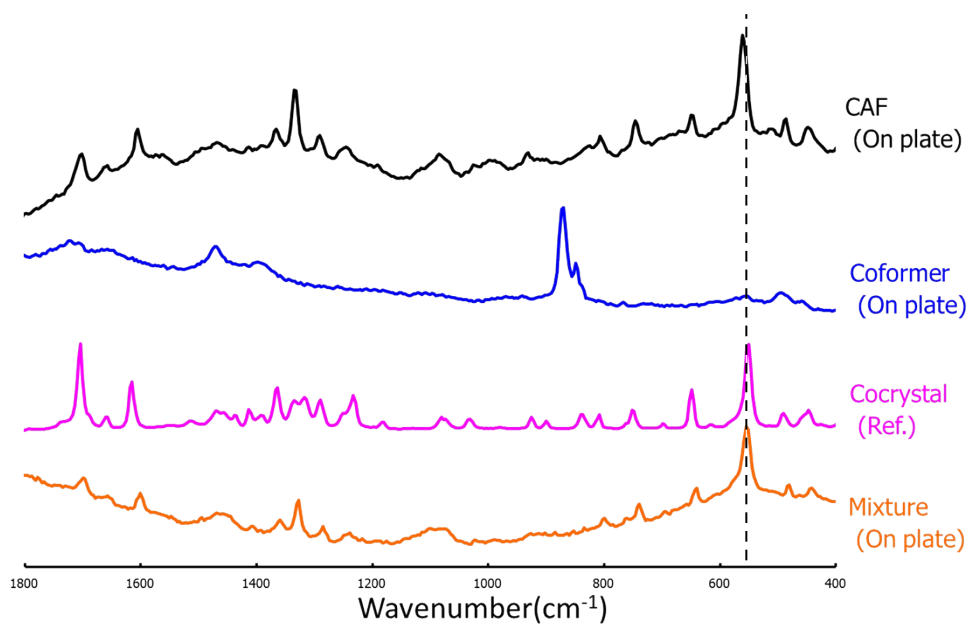


Figure S8. Raman spectra of CAF-O series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and O (coformer) on the plate. “Ref.” indicates reference cocystal.

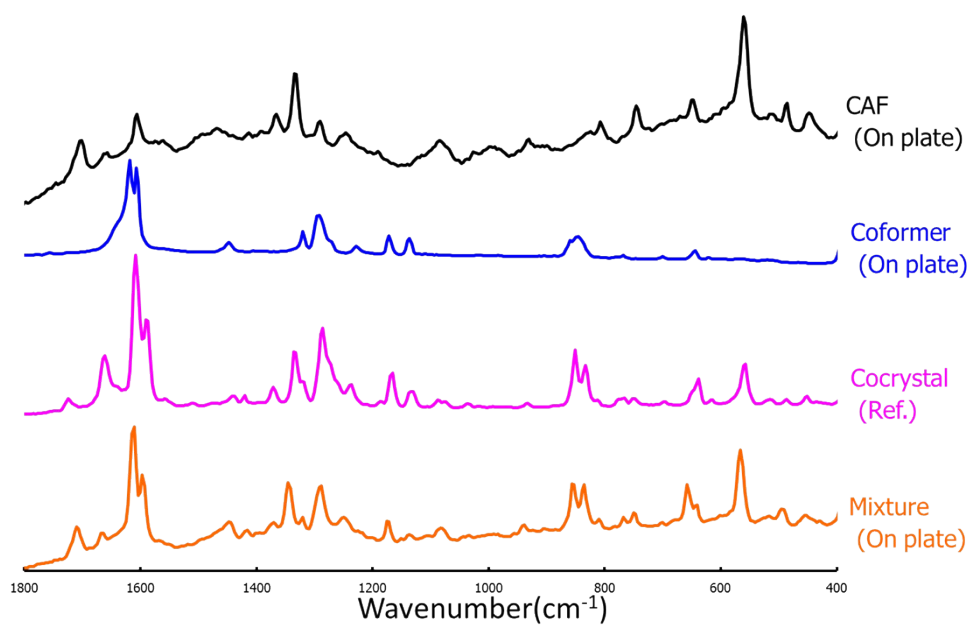


Figure S9. Raman spectra of CAF-4B series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and 4B (coformer) on the plate. “Ref.” indicates reference cocystal.

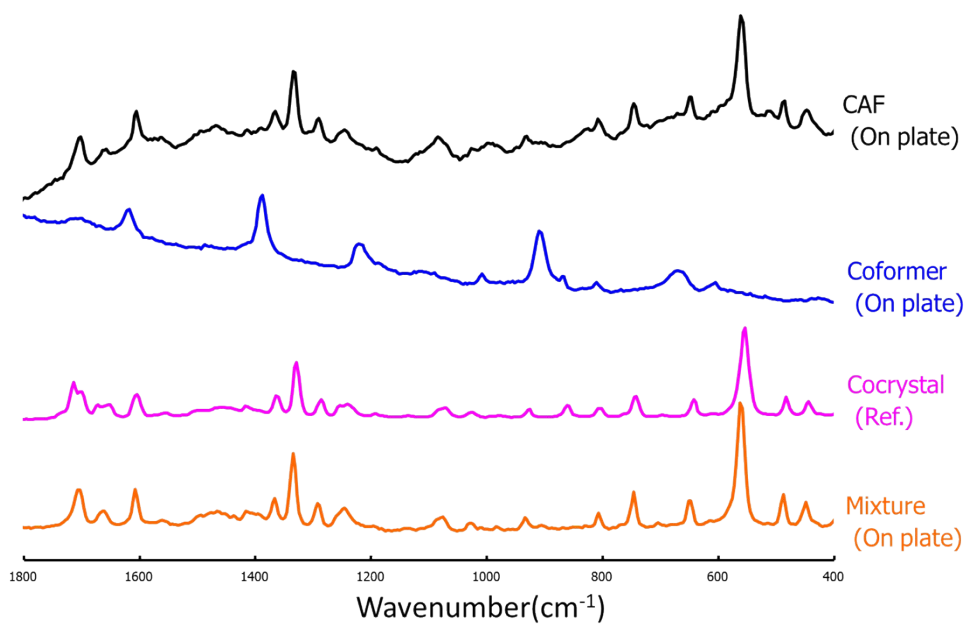


Figure S10. Raman spectra of CAF-M1 series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and M1 (coformer) on the plate. “Ref.” indicates reference cocystal.

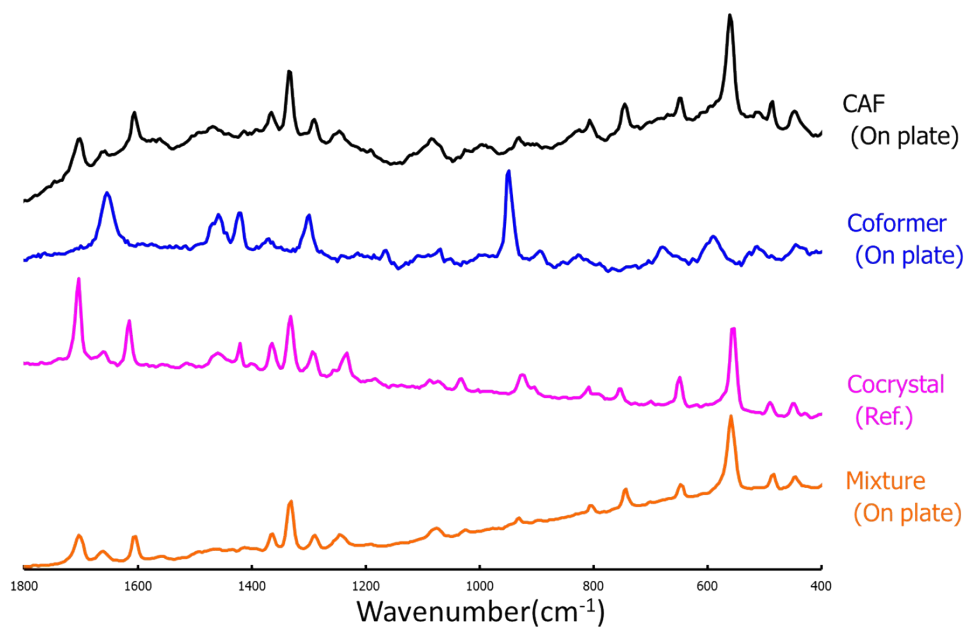


Figure S11. Raman spectra of CAF-G series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and G (coformer) on the plate. “Ref.” indicates reference cocystal.

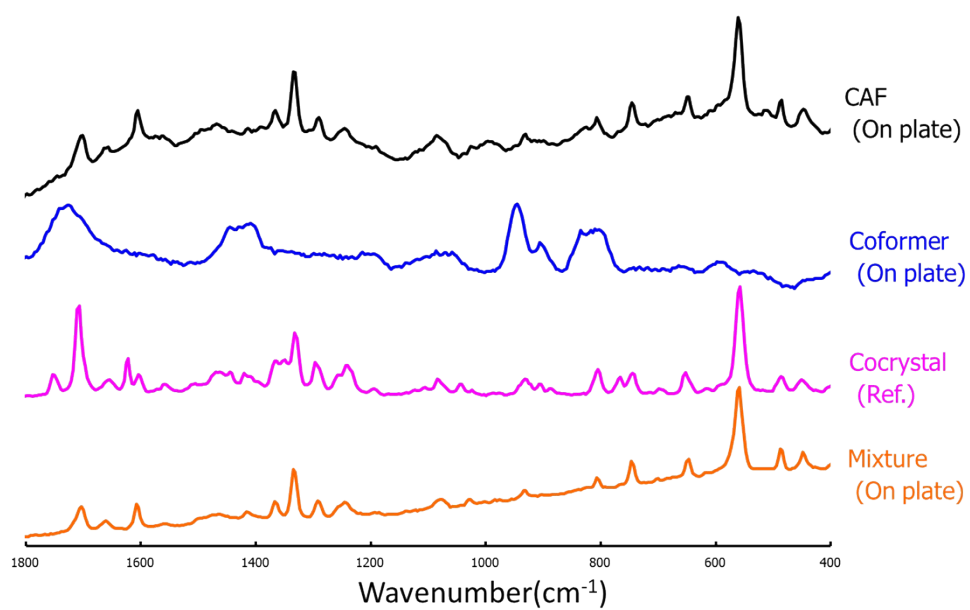


Figure S12. Raman spectra of CAF-C series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and C (coformer) on the plate. “Ref.” indicates reference cocystal.

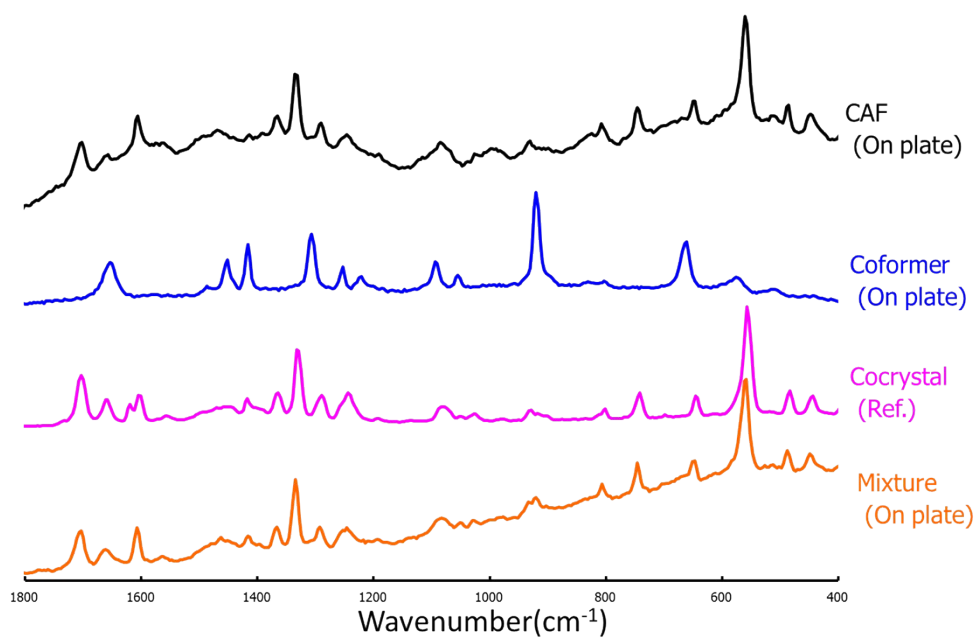


Figure S13. Raman spectra of CAF-Ad series. “On plate” indicates the crystal on the hydrophobized plate. “Mixture” indicates the crystal obtained from the mixture of CAF and Ad (coformer) on the plate. “Ref.” indicates reference cocystal.

Movies

Movie S1. The drying step after spotting on the hydrophobized glass plate using Novec1720.

Movie S2. The drying step after spotting on the hydrophobized glass plate using TCOCS+HMDS.

Movie S3. Automation of the nano-spot method using SPOT MASTER.

Movie S4. Automation of the nano-spot method using SPOT MASTER.