Electronic Supplementary Information for

Synthon polymorphs of 1:1 co-crystal of 5-fluorouracil and 4-hydroxybenzoic acid: their relative stability and solvent polarity dependence of grinding outcomes

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Fig. S1 IR spectra of 5FU-4HBA co-crystal polymorphs: (a) Form I and (b) Form II.



Fig. S2 DSC and TG curves of 5FU-4HBA co-crystal polymorphs: (a) Form I and (b) Form II.



Fig. S3 PXRD analysis: (a) calculated pattern of **Form II**, measured patterns for the outcome of SDG of 5FU and 4HBA (1:1) with various solvents, including (b) n-heptane, (c) 1, 4-dioxane, (d) benzene, (e)o-xylene, (f) p-xylene, (g) m-xylene, (h) chloroform, (i) ethyl acetate, (j) methyl acetate, (k) tetrahydrofuran, (l) methylene chloride, (m) sec-butyl alcohol, (n) n-butyl alcohol, (o) isopropyl alcohol, (p) butanone, (q) acetone, (r) propanol, (s) ethanol, (t) methanol, (u) acetonitrile, (v) ethylene glycol, (w) water, as well as (x) calculated pattern of **Form I**.



Fig. S4 PXRD analysis of a 1 : 1 mixture of **Form I** and **Form II** before (a) and after (b) the slurry for 24 h in water overlaid on the calculated patterns of **Form II** (c) and **Form I** (d).



Fig. S5 VT-PXRD analysis of Form II.