

Supplementary data for

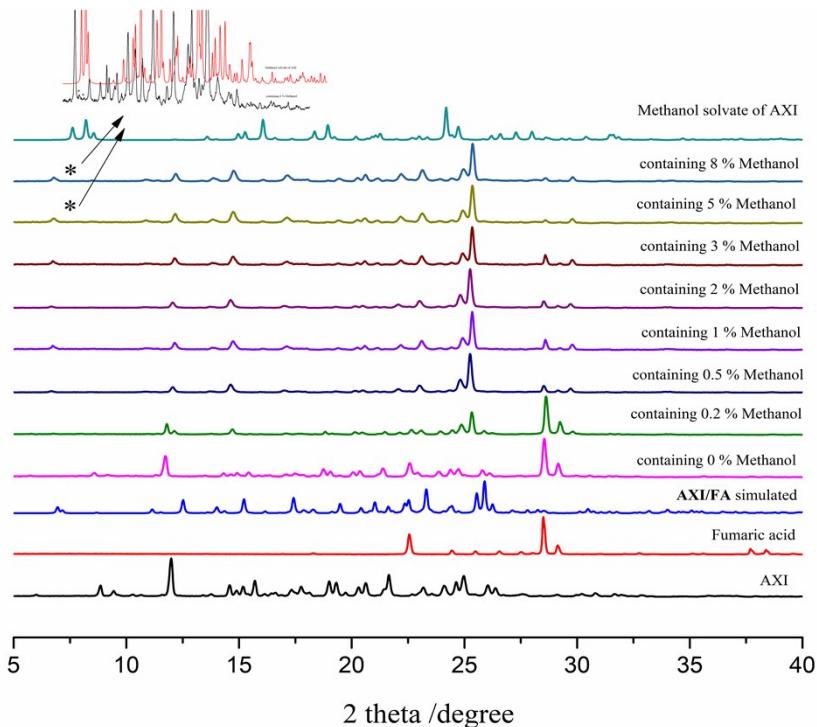
Cocrystallization of axitinib with carboxylic acids: preparation, crystal structures and dissolution behavior

Bo-Ying Ren^a, Xia-Lin Dai^{*b}, Jie Wang^a, Chao Wu^b, Tong-Bu Lu^a, Jia-Mei Chen^{*b}

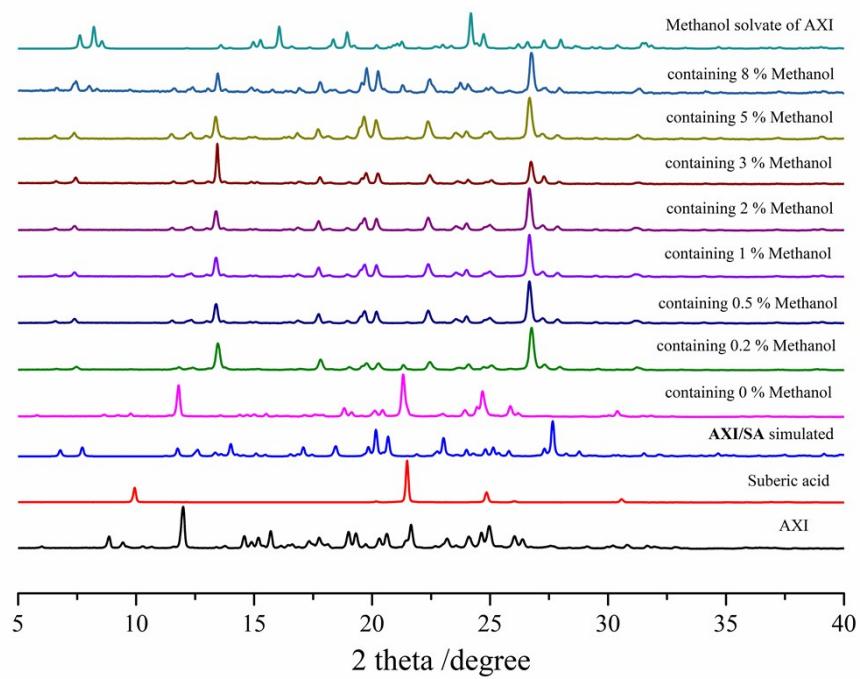
Table S1. Slurry experiments for preparation of cocrystals.

Entry	Methanol content	AXI/FA	AXI/SA	AXI/TCA
1	0	Physical mixture	Physical mixture	Physical mixture
2	0.2%	AXI/FA Cocrystal	AXI/SA Cocrystal	AXI/TCA Cocrystal
3	0.5%	AXI/FA Cocrystal	AXI/SA Cocrystal	AXI/TCA Cocrystal
4	1%	AXI/FA Cocrystal	AXI/SA Cocrystal	AXI/TCA Cocrystal
5	2%	AXI/FA Cocrystal	AXI/SA Cocrystal	Methanol solvate of AXI+cocrystal
6	3%	AXI/FA Cocrystal	AXI/SA Cocrystal	Methanol solvate of AXI+cocrystal
7	5%	Methanol solvate of AXI+cocrystal	AXI/SA Cocrystal	Methanol solvate of AXI+cocrystal
8	8%	Methanol solvate of AXI+cocrystal	Methanol solvate of AXI+cocrystal	Methanol solvate of AXI+cocrystal

(a)



(b)



(c)

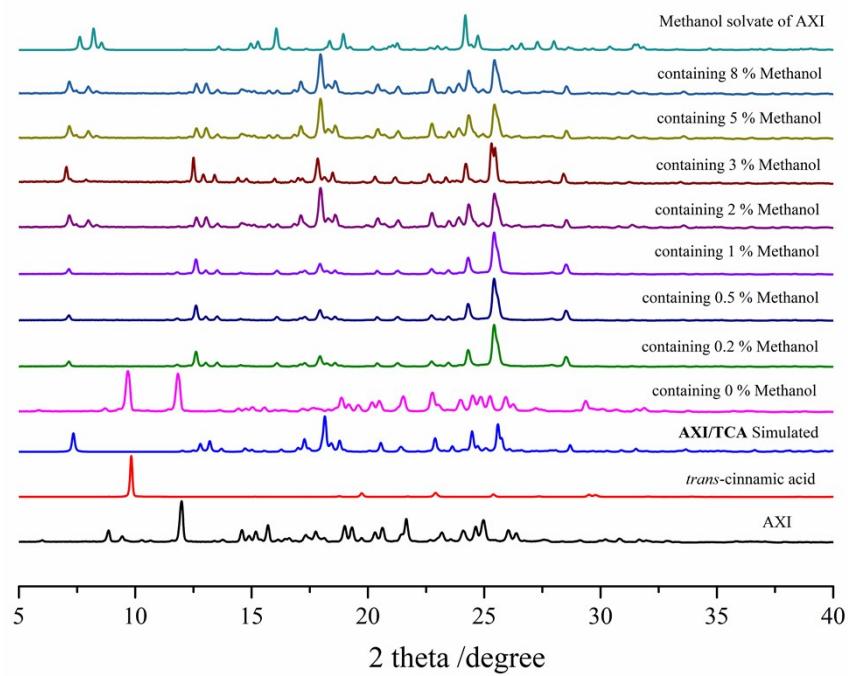


Fig. S1 PXRD patterns of the outcome of slurry experiments of (a) AXI-FA, (b) AXI-SA and (c) AXI-TCA systems.

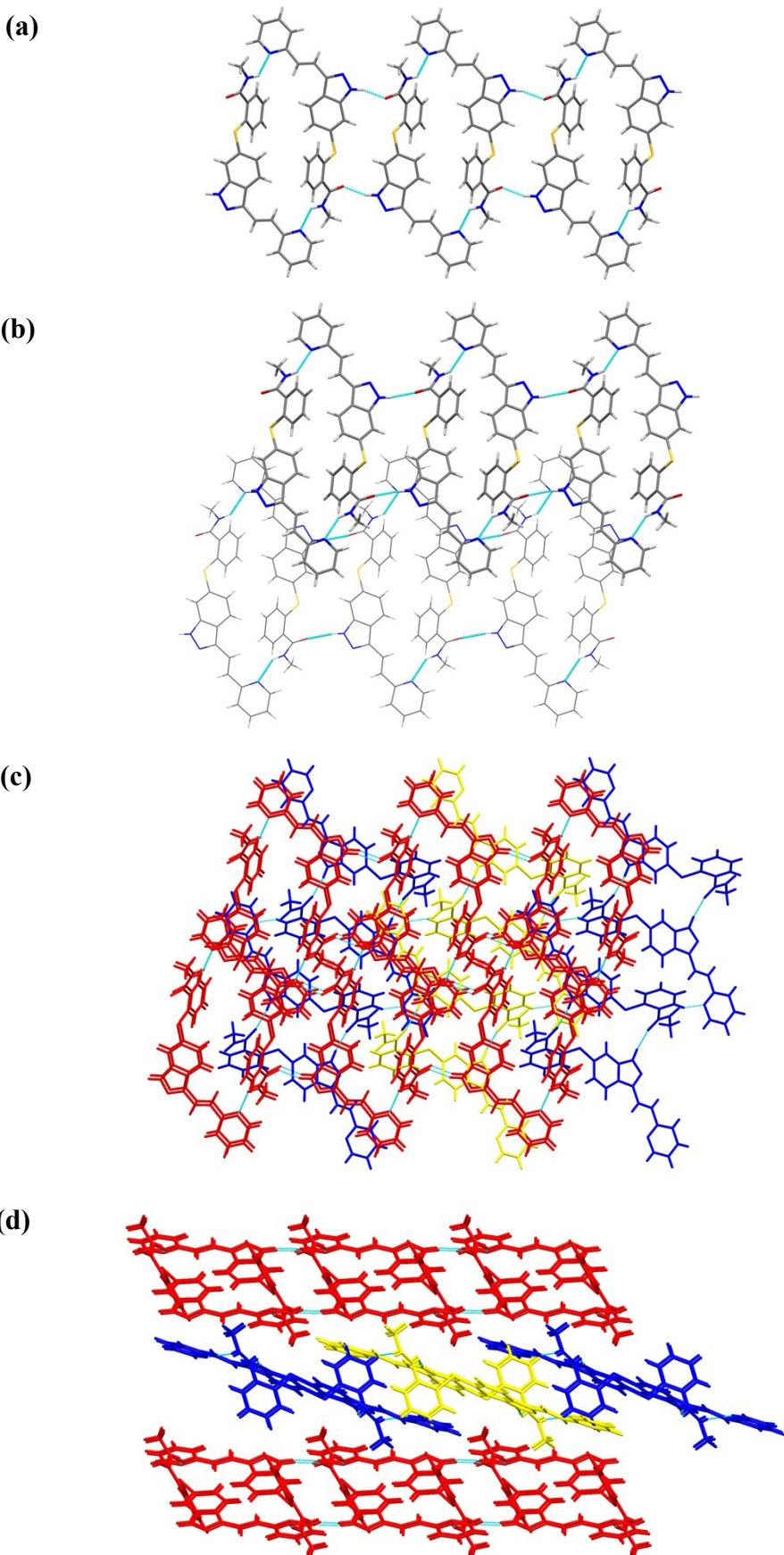
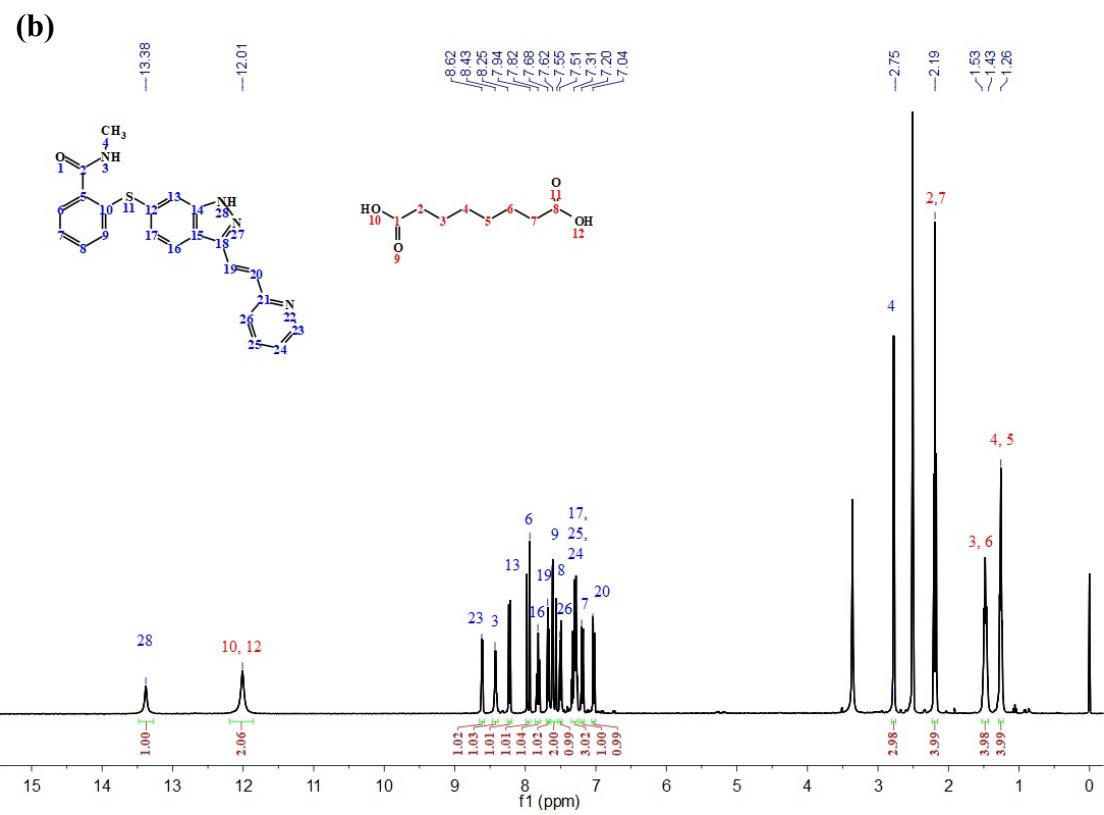
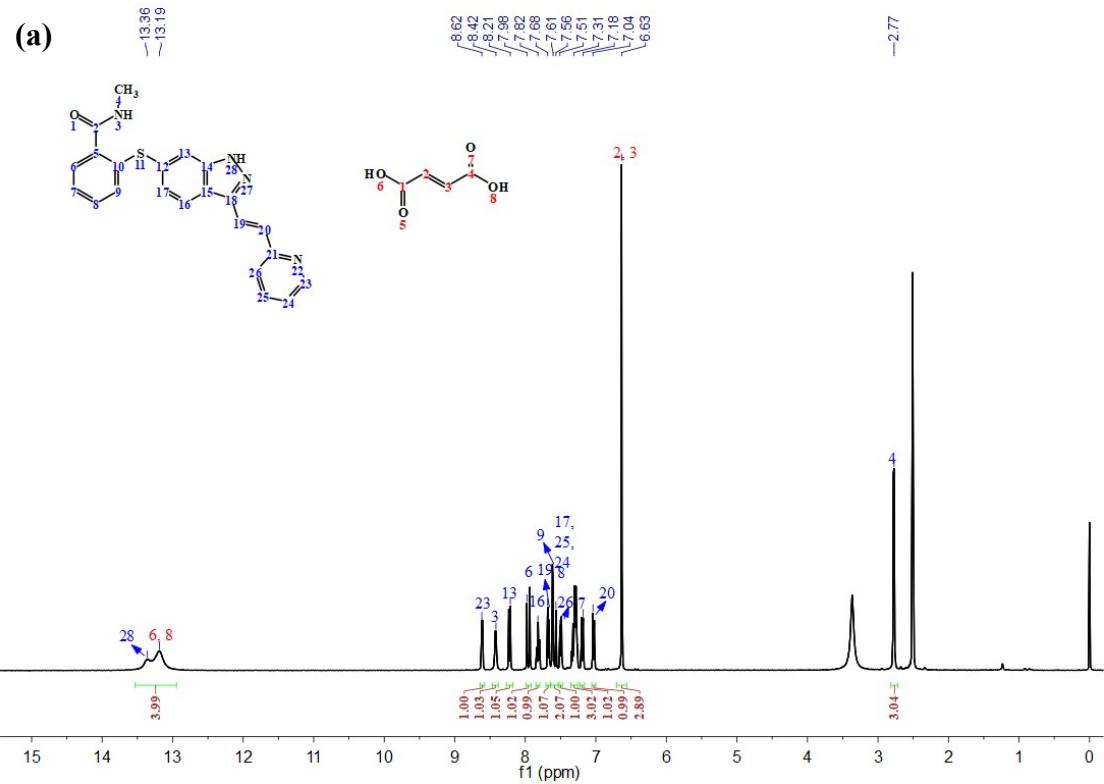
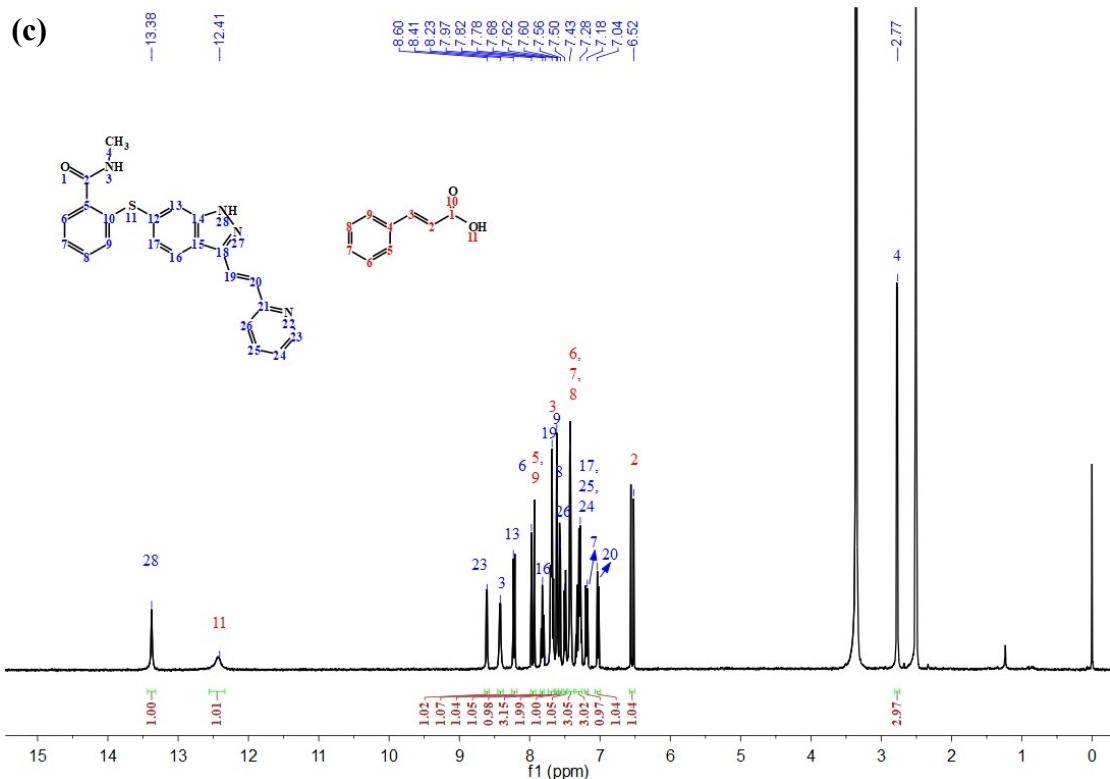


Fig. S2 (a) 1D chain, (b) 2D layer, (c) top view and (d) side view of the 3D structure of AXI.





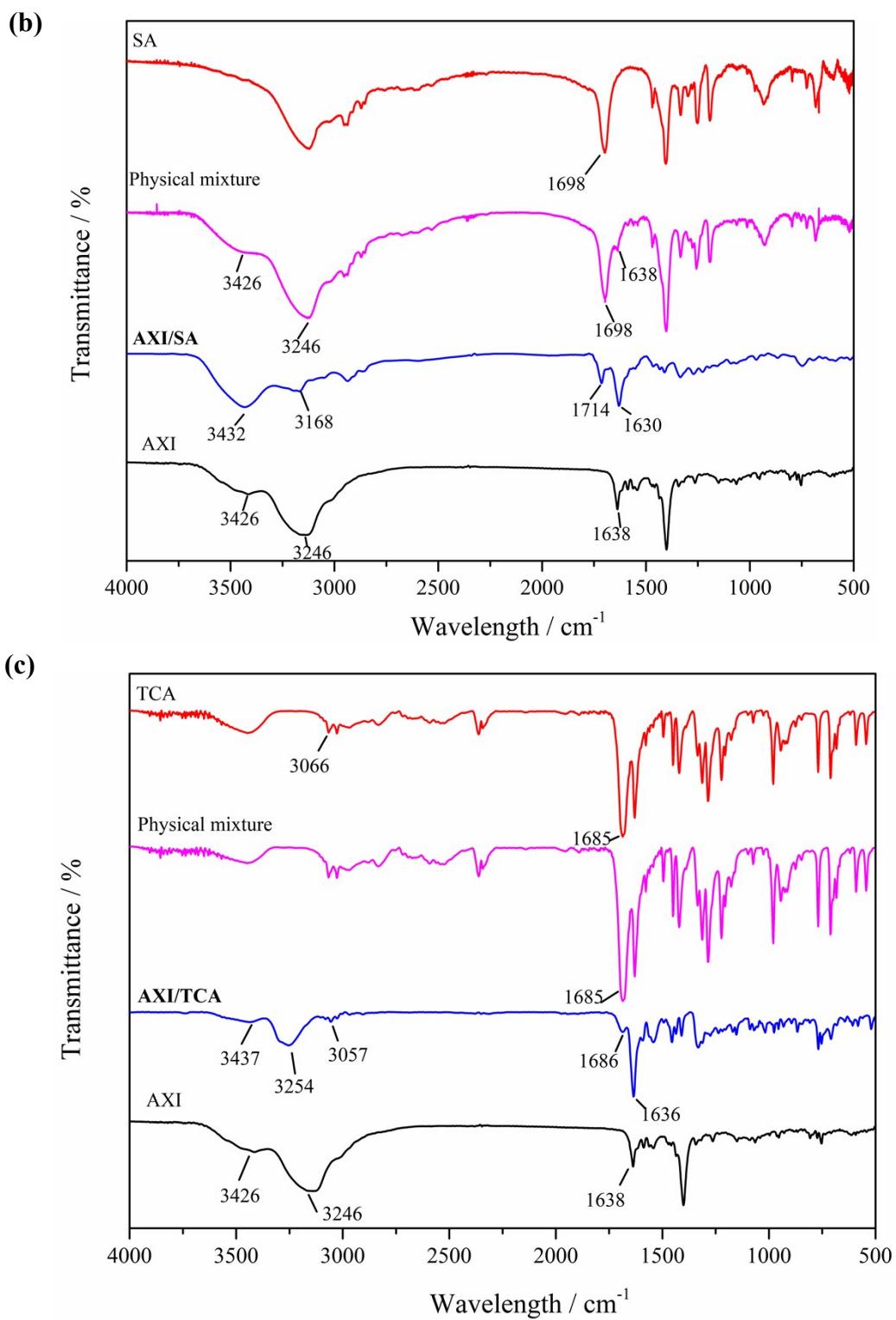


Fig. S4 FT-IR spectra of (a) AXI/FA, (b) AXI/SA and (c) AXI/TCA.

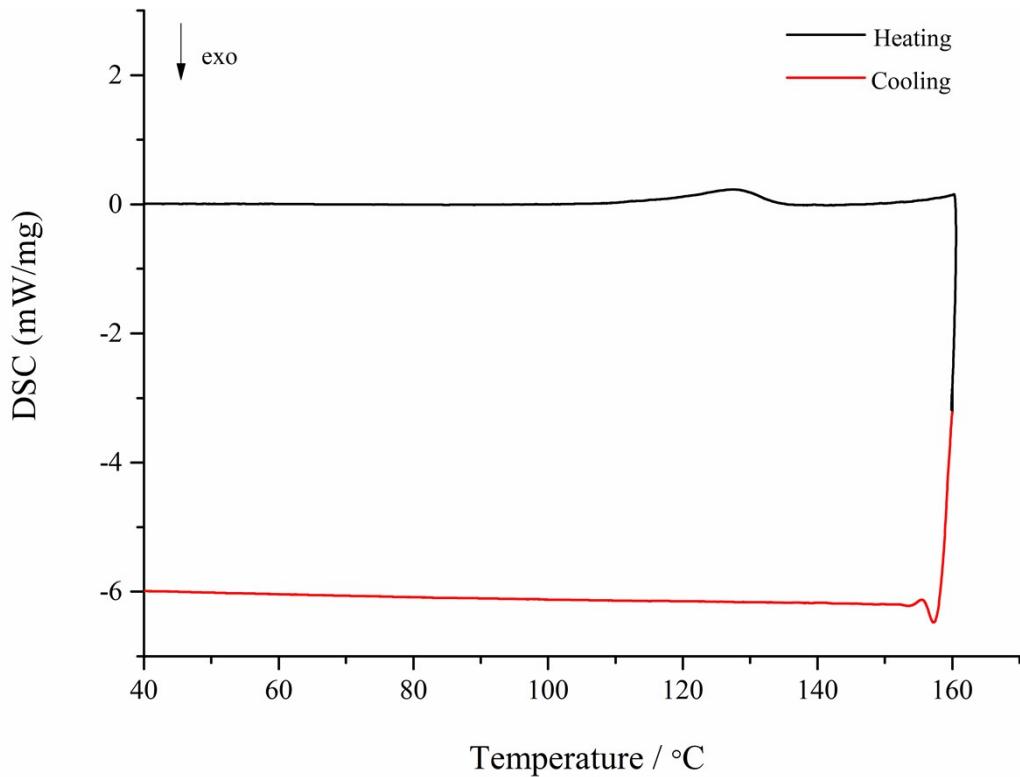


Fig. S5 DSC cycle for **AXI-SA** (40 °C–160 °C–40 °C).

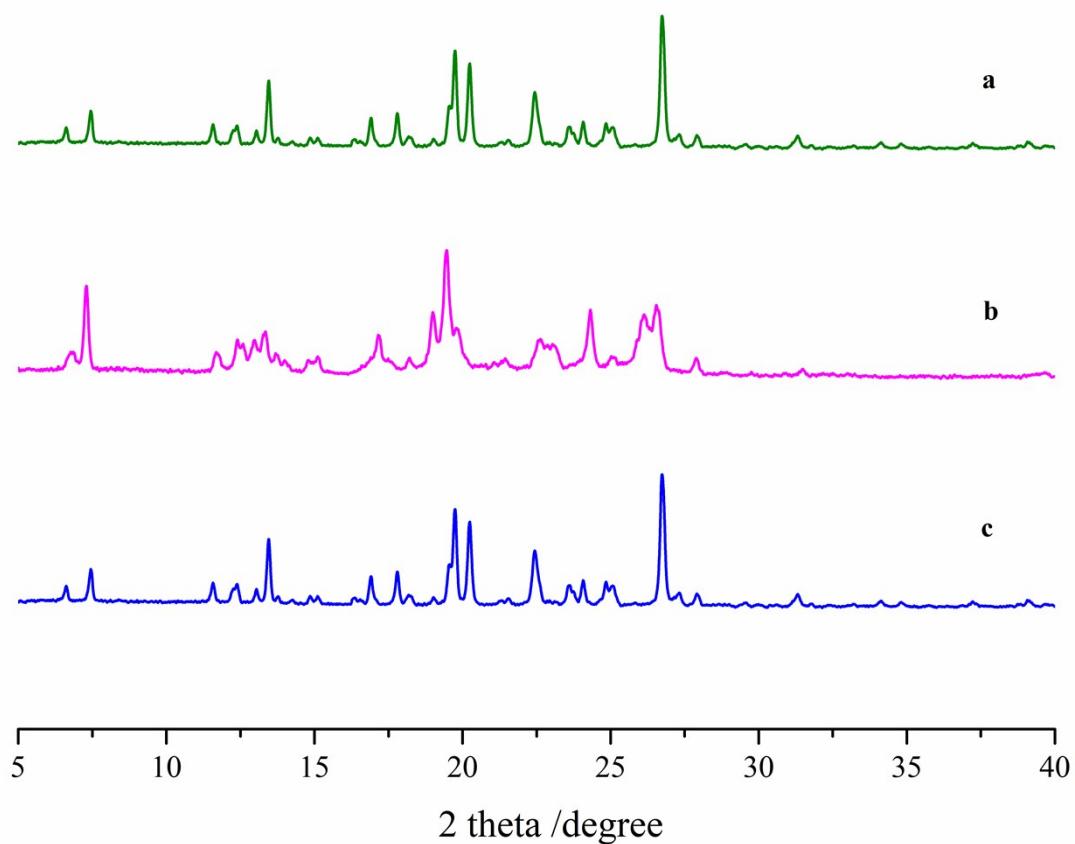


Fig. S6 PXRD patterns of **AXI/SA** (a) before and (b) after heating to 160 °C, and (c) then placed under ambient conditions for 5 mins.

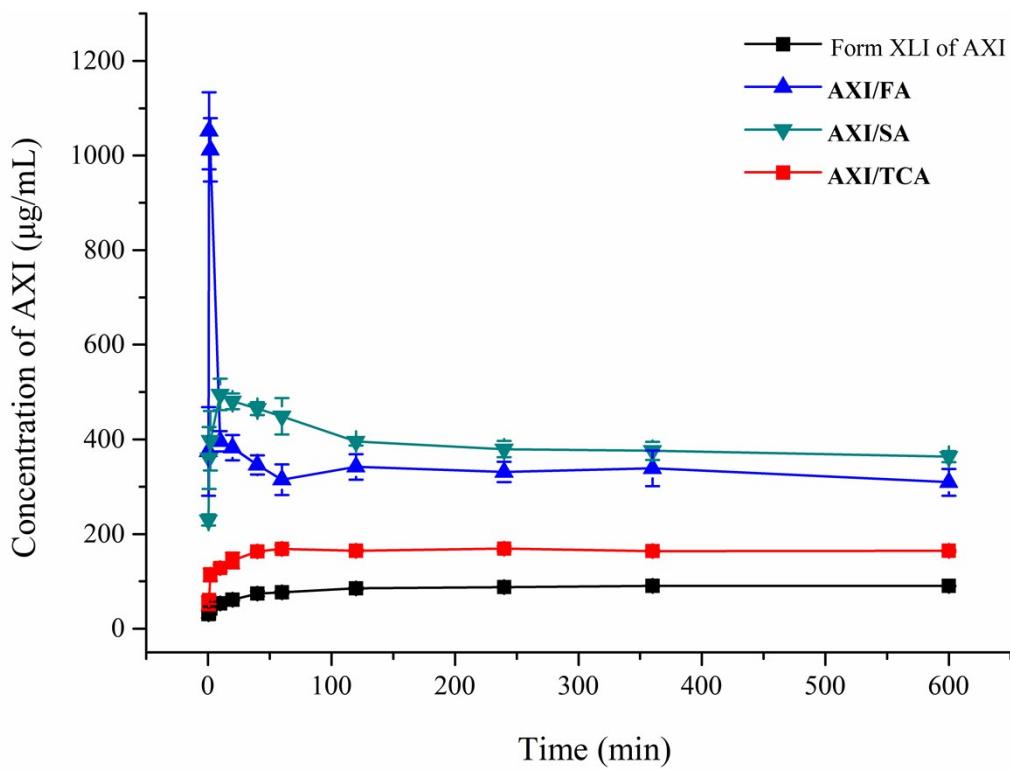


Fig. S7 Powder dissolution profiles for AXI and its cocrystals within 10 h.

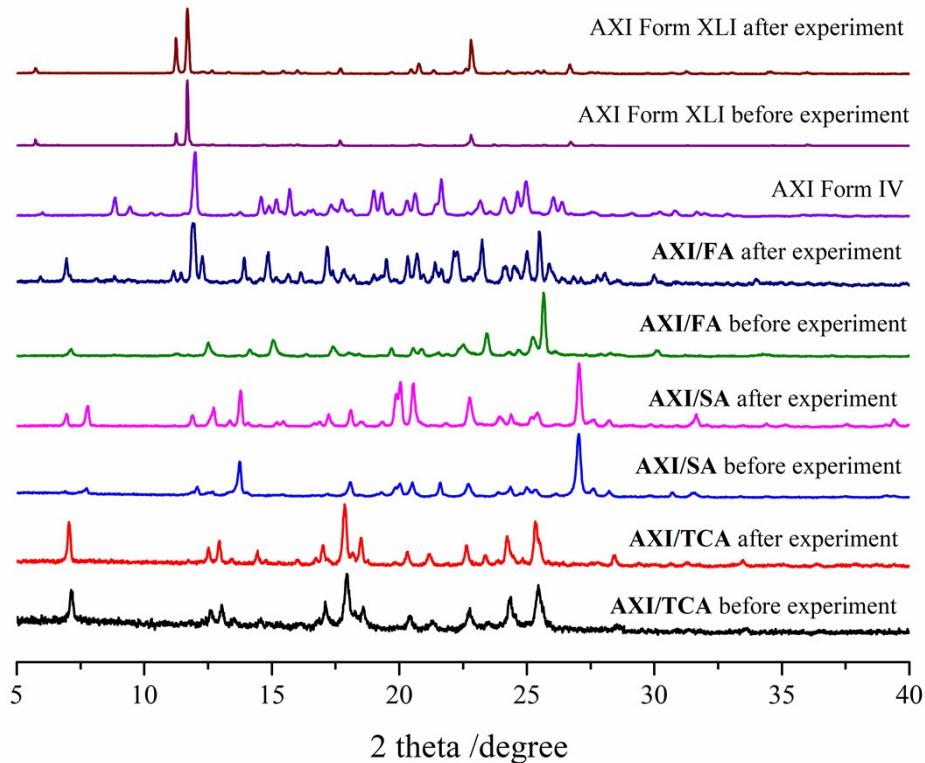


Fig. S8 PXRD patterns of the residual solids of AXI and its cocrystals after powder dissolution experiments.

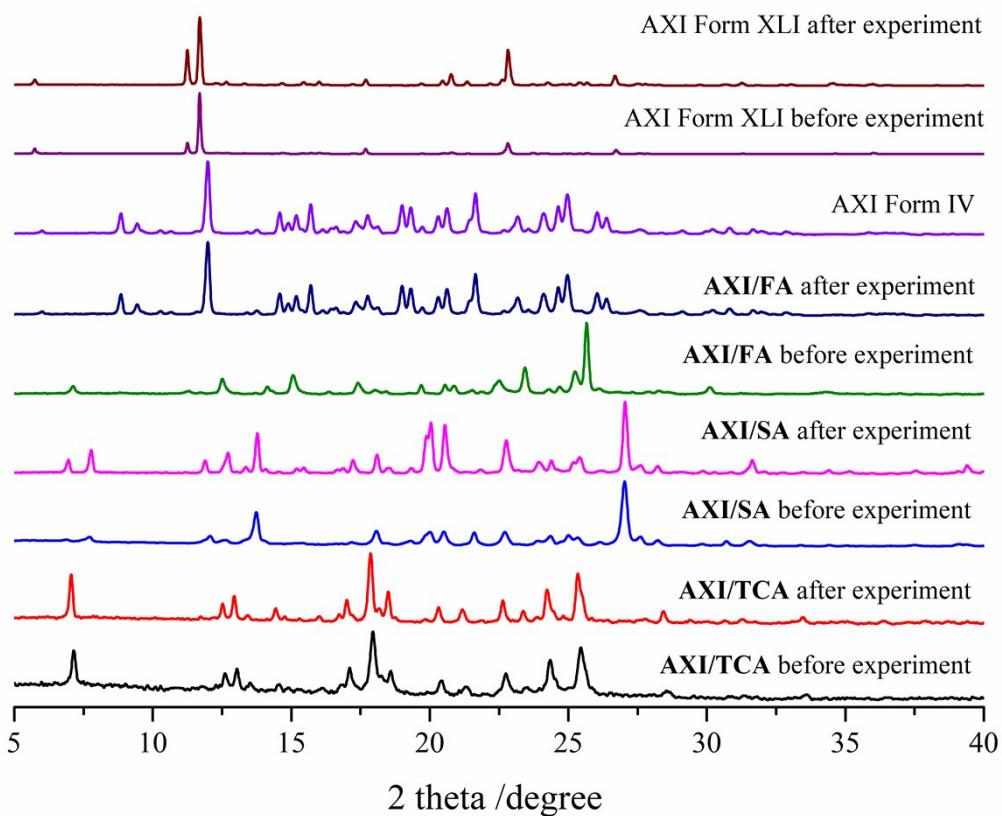
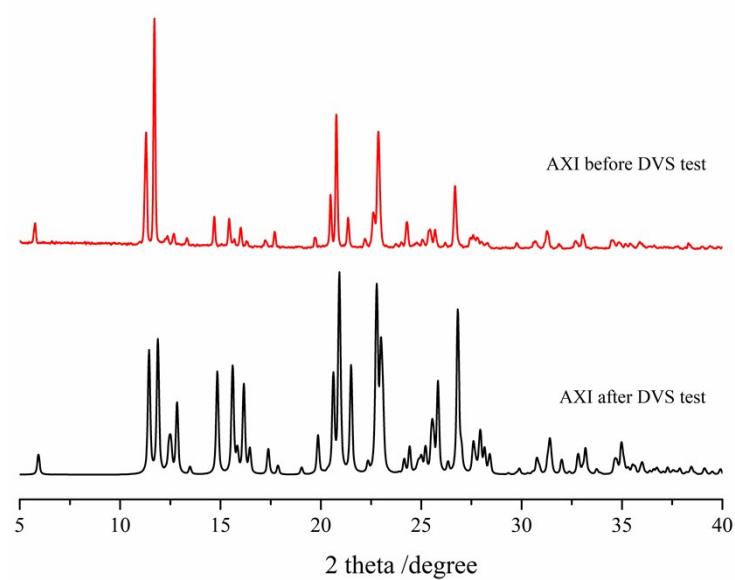
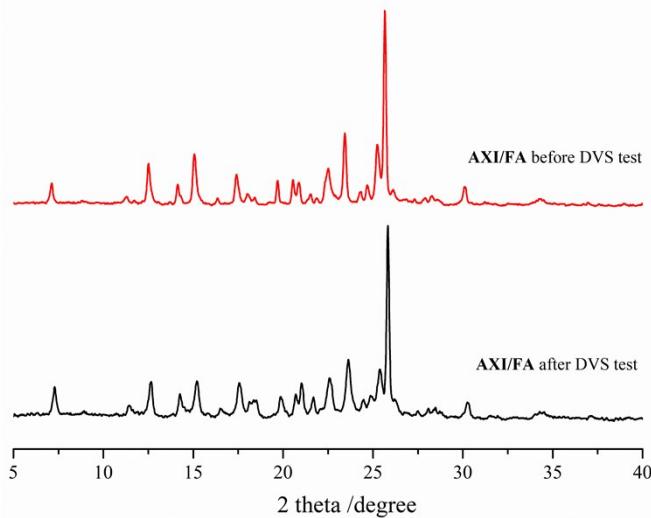


Fig. S9 PXRD patterns of the residual solids of AXI and its cocrystals after IDR experiments.

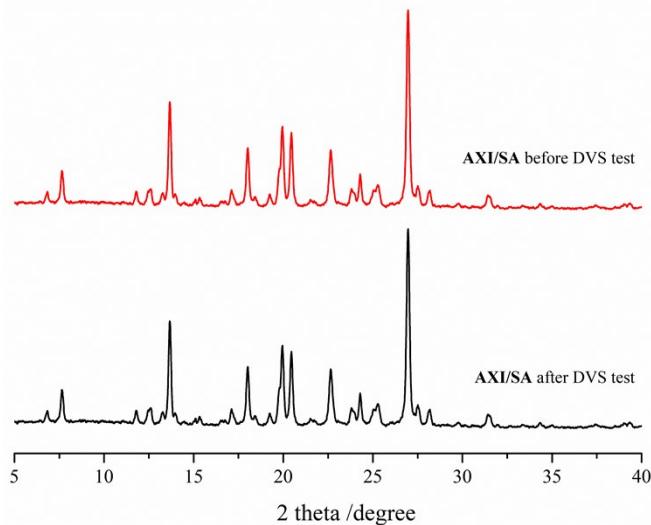
(a)



(b)



(c)



(d)

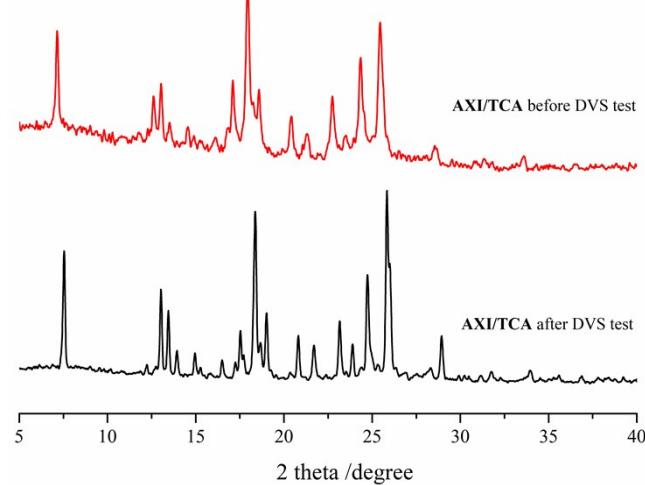
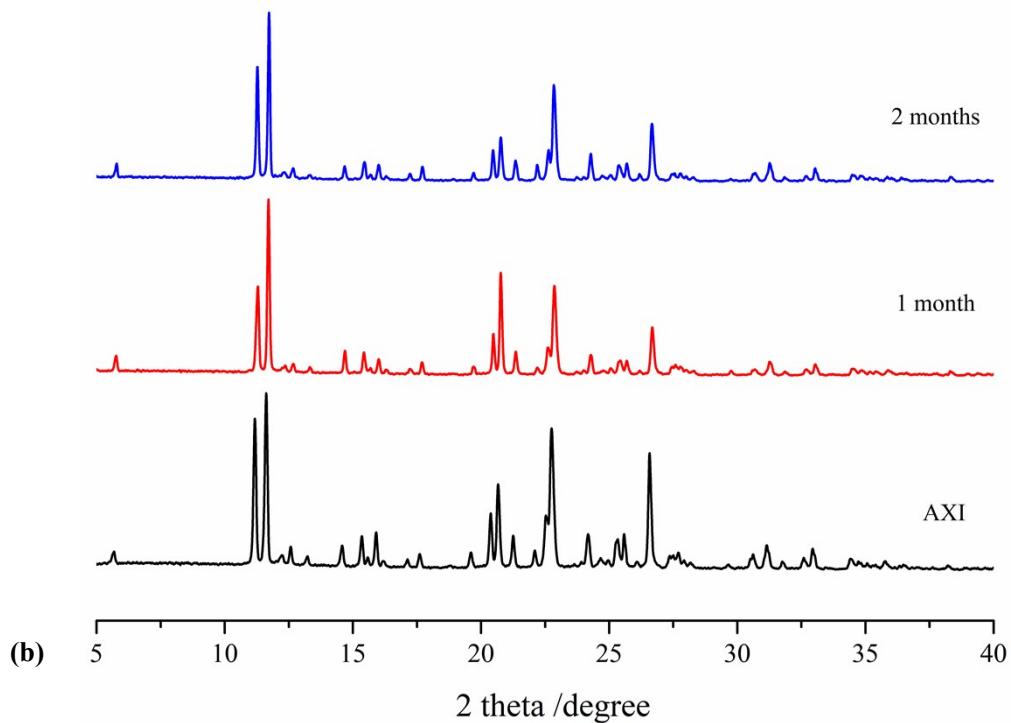
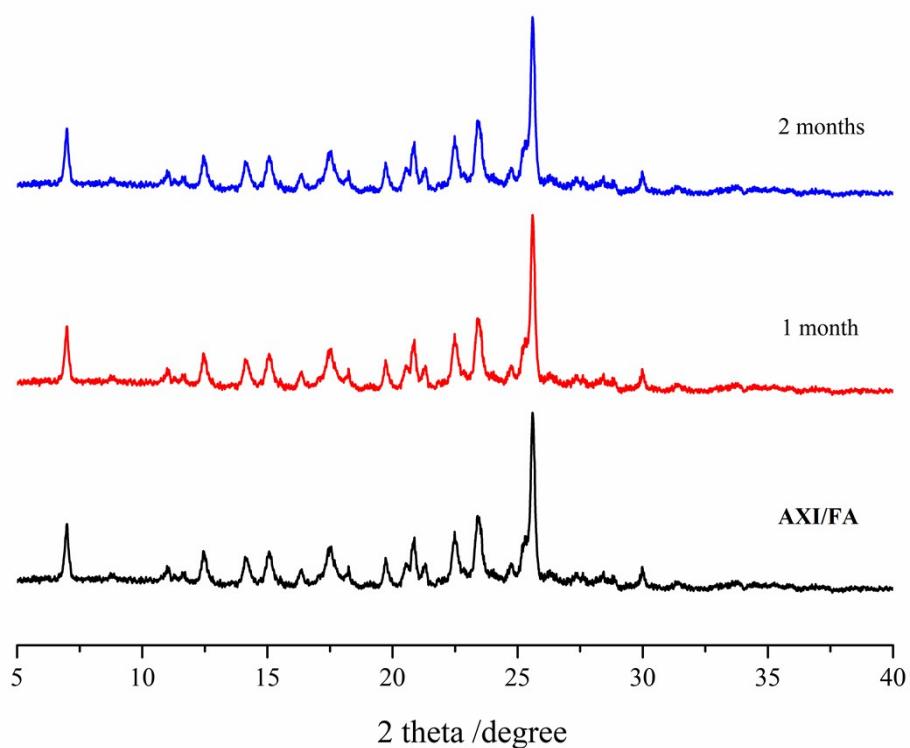


Fig. S10 PXRD patterns of (a) AXI (Form XLI), (b) AXI/FA, (c) AXI/SA and (d) AXI/TCA before and after DVS test.

(a)



(b)



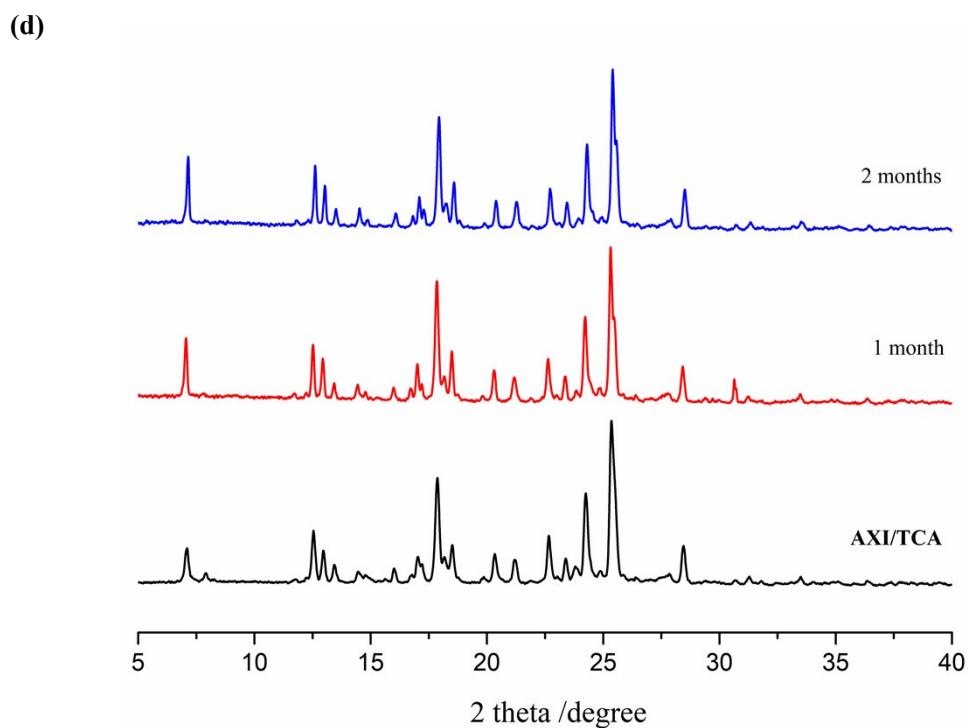
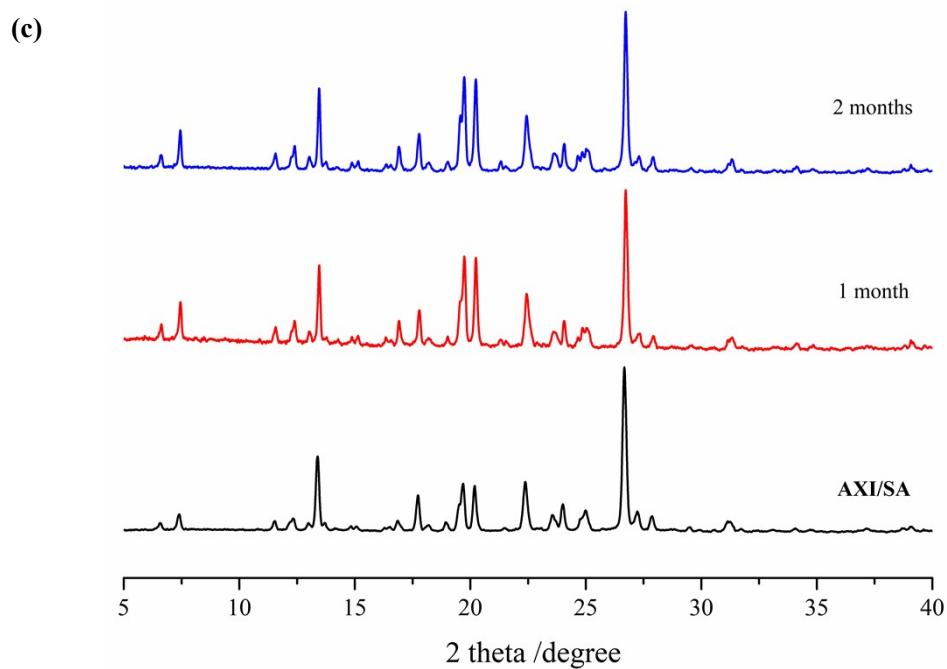


Fig. S11 PXRD patterns of (a) AXI (Form XLI), (b) AXI/FA, (c) AXI/SA, (d) AXI/TCA under 40 °C/75% RH accelerated conditions.