

## Mechanism of solvent-mediated polymorphic transformation to prepare axitinib form XLI controlled by water activity

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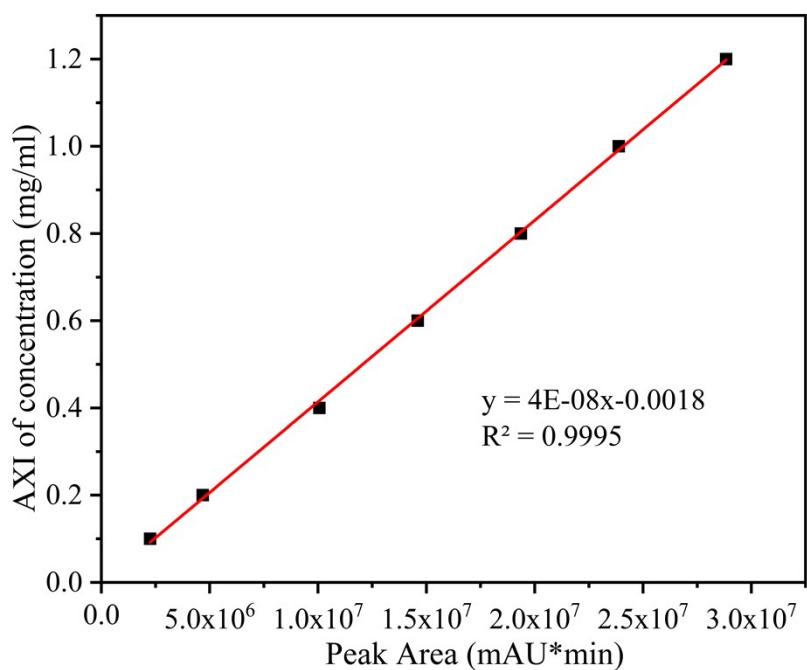
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**Table S1** Experimental conditions for the SMPT process of solvated S<sub>DMF</sub>

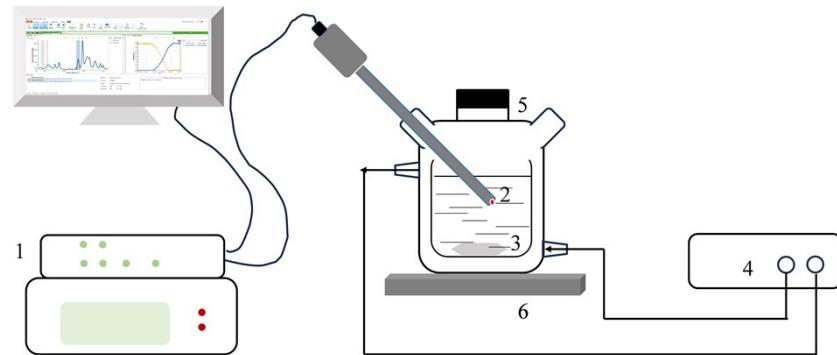
Volume fraction of water (V <sub>W</sub> )	Volume fraction of methanol (V <sub>M</sub> )	Molar fraction of water (X <sub>W</sub> )	water activity(α <sub>W</sub> )
0.00	1	0	0
0.05	0.95	0.106	0.167
0.10	0.90	0.200	0.294
0.15	0.85	0.284	0.394
0.20	0.80	0.360	0.475
0.25	0.75	0.429	0.540
0.30	0.70	0.491	0.595
0.35	0.65	0.548	0.641
0.40	0.60	0.600	0.682
0.50	0.50	0.692	0.751
0.60	0.40	0.771	0.809
0.7	0.30	0.840	0.861
0.8	0.20	0.900	0.909
0.9	0.10	0.953	0.955
1.00	0.00	1	1

**Table S2** Details of experimental conditions for the S<sub>DMF</sub> solvate transformation

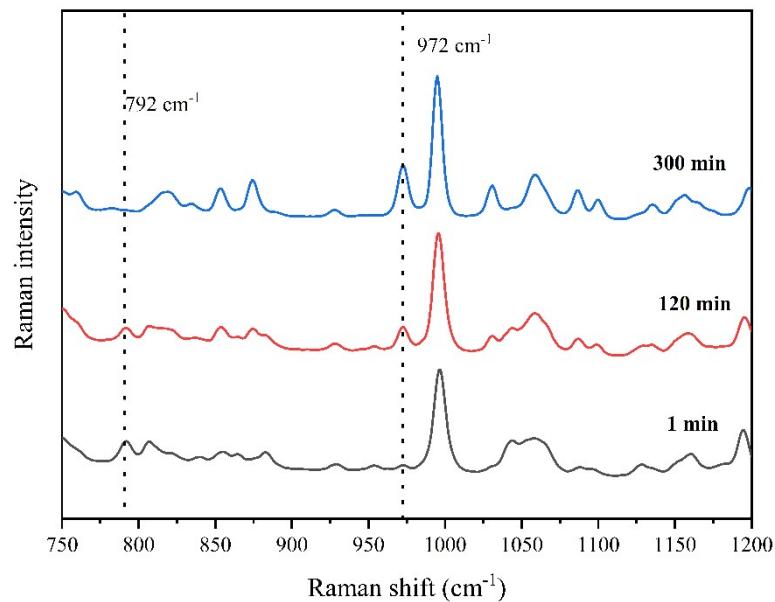
Number	Methanol:Water (v:v)	Solid content/g	Temperature/ K	Agitation speed/rpm
1	0:10	1.6	333.15	300
2	1:9	1.6	333.15	300
3	3:7	1.6	333.15	300
4	5:5	1.6	333.15	300
5	1:9	0.4	333.15	300
6	1:9	0.8	333.15	300
7	1:9	2.4	333.15	300
8	2:8	1.6	333.15	300
9	2:8	1.6	323.15	300
10	2:8	1.6	313.15	300



**Figure S1.** The standard curve of HPLC for AXI



**Figure S2.** Diagram of the experimental setup for solvent-mediated polymorphic transformation. 1- Raman laser transmitter; 2- Raman probe; 3- Magneton; 4-Constant temperature water-bathing; 5- 100ml crystallizer; 6- Magnetic stirring



**Figure S3.** Raman spectra of intermittent sampling during solution-mediated