Supporting Information

Table 1. Sample code and their composition

Sample Name	Mole ratio of DAST : OA	DAST (g)	Measured OA (g)
A	1:0	0.256	NIL
B	1:1	0.256	0.176
C	1:2	0.256	0.352

The simulated powder XRD pattern of hydrated DAST obtained from Bryant et al and that of pure DAST was from Marder et al[1,2].

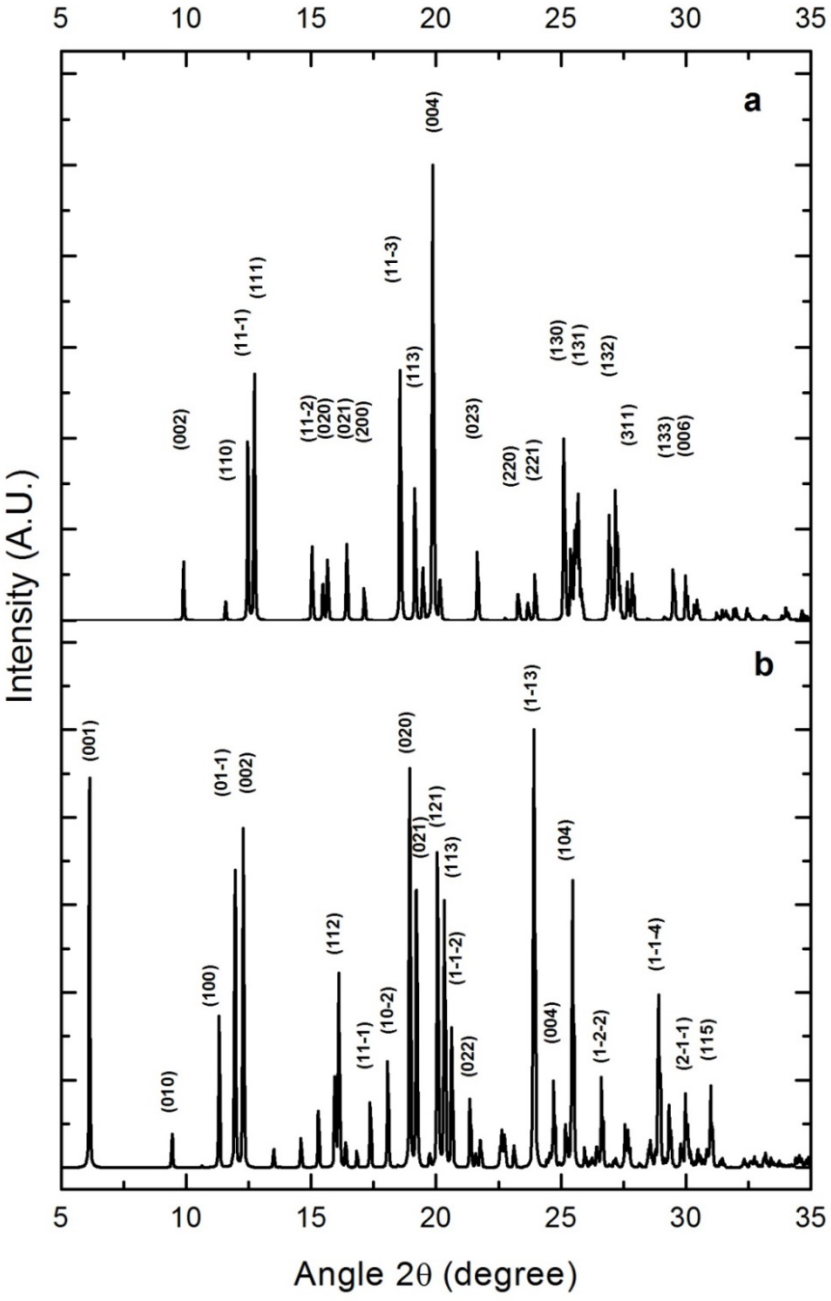

Fig. S1. (a) simulated powder XRD pattern of (a) pure and (b) hydrated DAST.

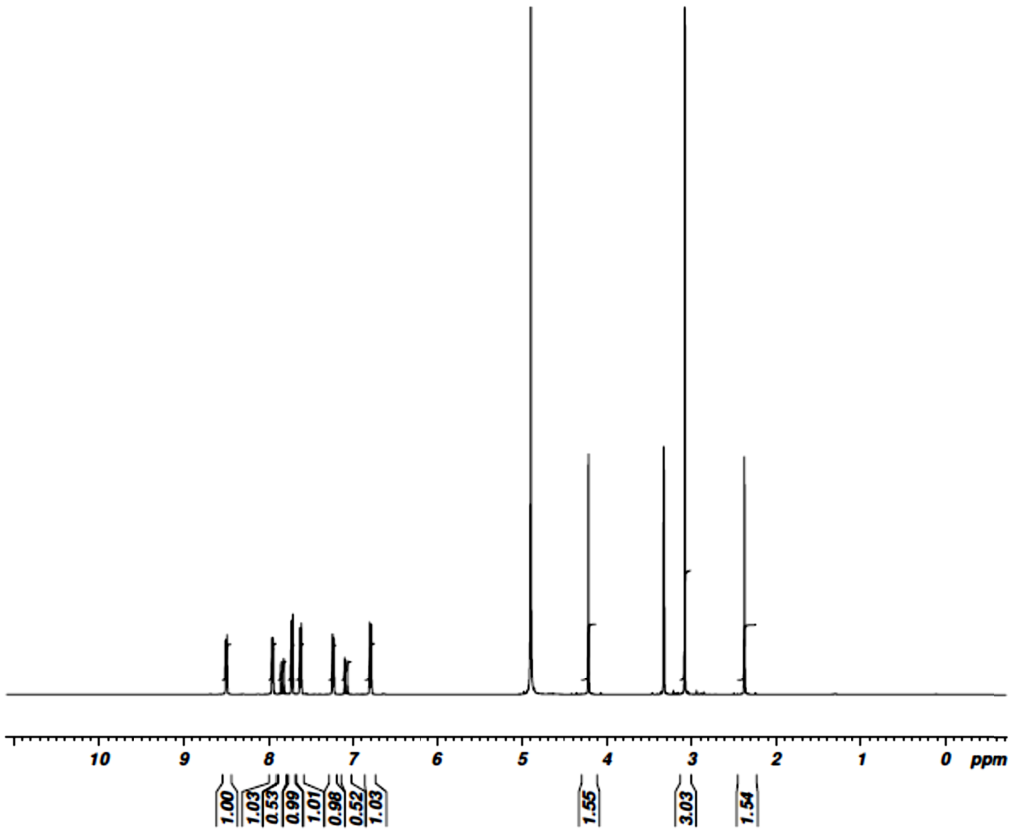

Fig. S2. NMR analysis of DAST (sample B)

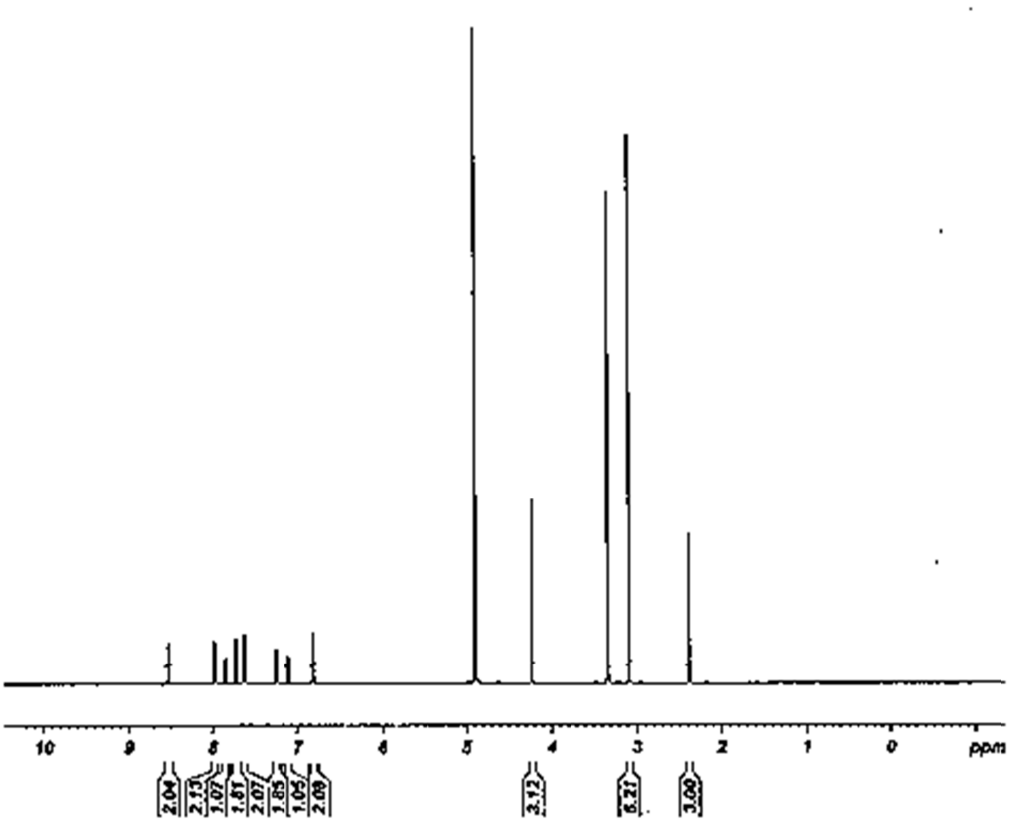

Fig. S3. NMR analysis of pure DAST

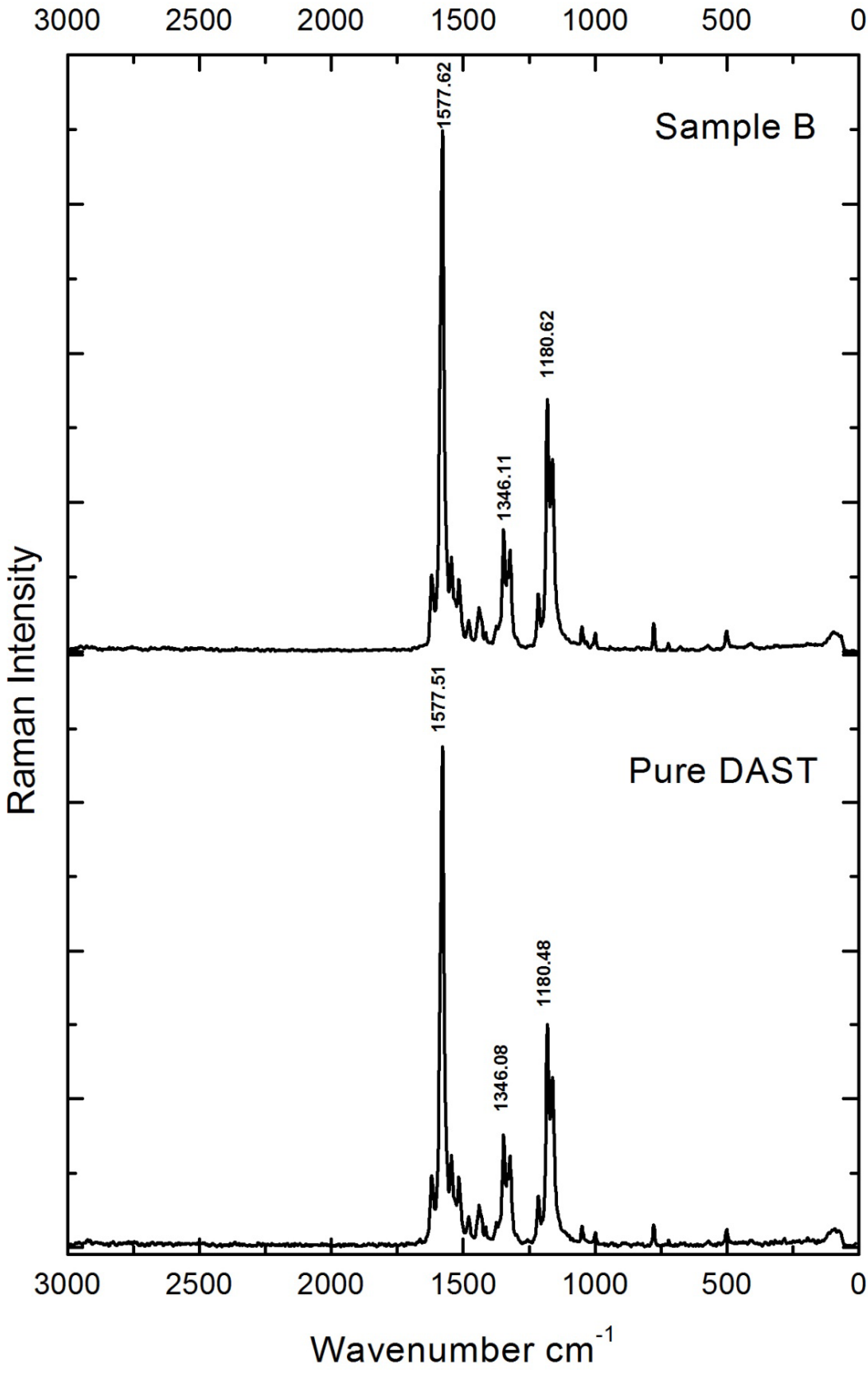

Fig. S4. Comparison of Raman spectrum of DAST (sample B) and pure DAST

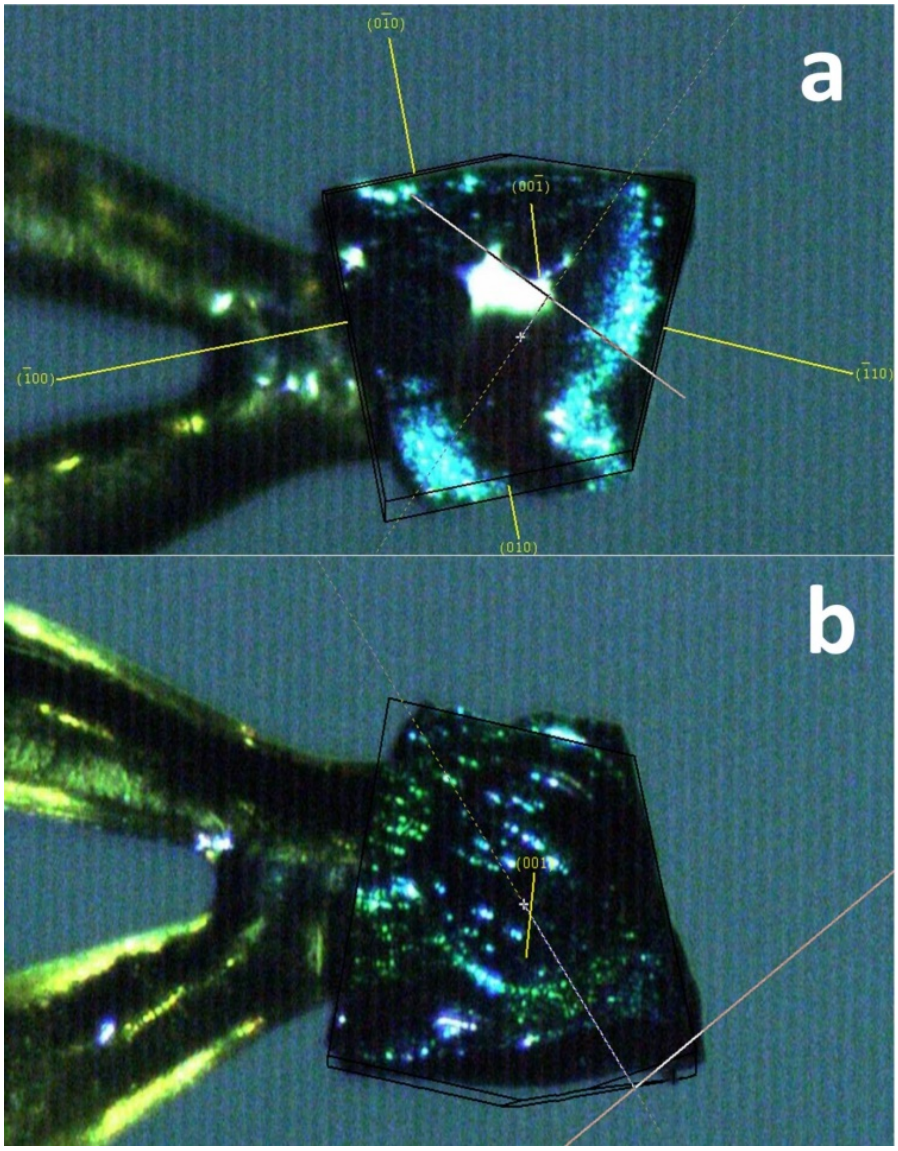

Fig. S5. (a) Morphology of DAST Crystals belonging to sample B with (00$\bar{1}$) and (b) (001) faces indexed.

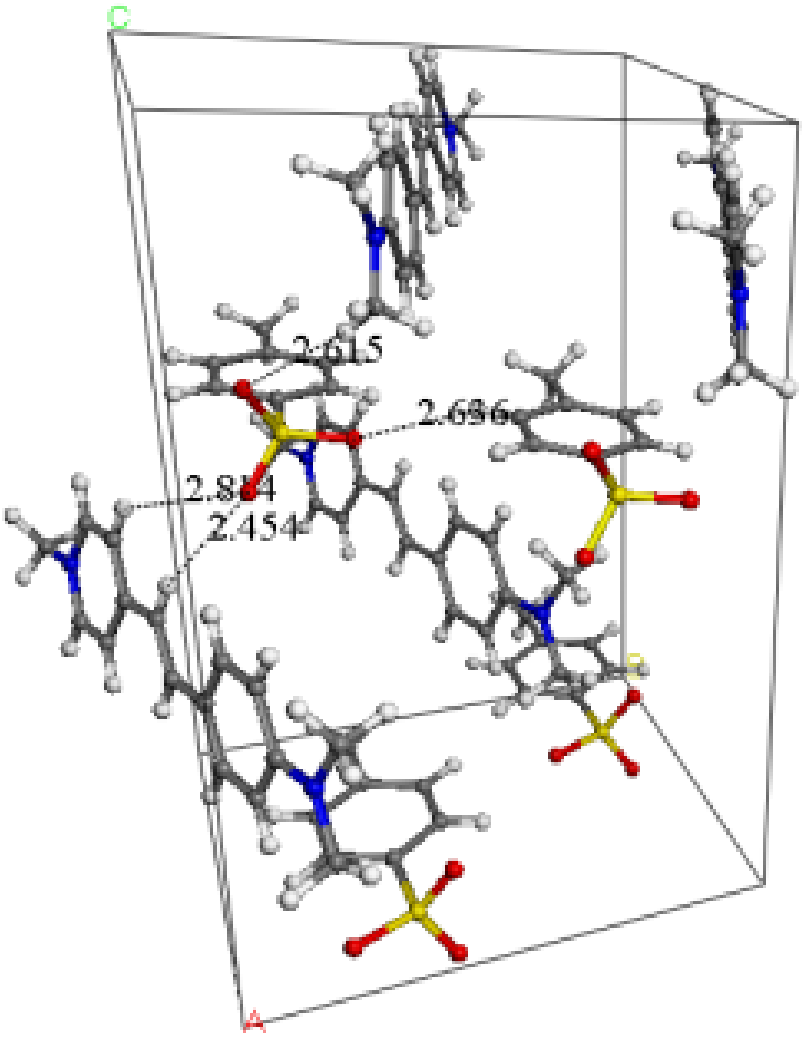

Fig. S6. Anion-anion and cation-anion hydrogen bonds in DAST.

Reference:

1. G. L. Bryant, C. P. Yakymyshyn, and K. R. Stewart, *Acta Cryst. C*, 1993, **49**, 350.
2. S. R. Marder, J. W. Perry and C. P. Yakymyshyn, *Chemistry of Materials*, 1994, **6**, 1137.