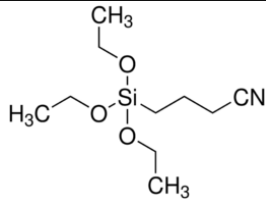
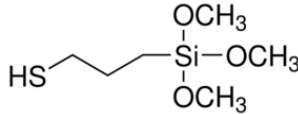
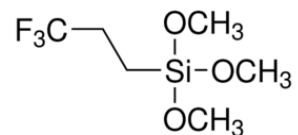


## Supplementary information

### Silanisation method:

Glass cover slips and small glass vials were silanised following the same method of silanisation. Silanisation involved cleaning, hydration, silanising and curing processes. The glass substrates are initially cleaned with DI water and ethanol. Further cleaning is performed overnight using 5 N nitric acid. This is followed by rinsing with copious amount of DI water to remove any residual acid from surface. Surface of the glass surface is hydrated by placing them in boiling water for 6 hours. The surfaces are then dried in room temperature and silanised overnight using 1% silane solution in toluene. The surfaces are then rinsed with toluene and ethanol to remove any unreacted silane. Curing is performed at 80°C for 4 hours. Silanised glass covers are used for contact angle measurements.

### Molecular structure of silanes:

Silane name	Molecular structure
3-Cyanopropyltriethoxy silane	
3-Mercaptopropyltrimethoxy silane	
Trimethoxy(3,3,3-trifluoropropyl) silane	

### Surface energy calculation:

Surface energy of silanised glass surfaces are calculated by Owens-Wendt method using advancing contact angle data of four probe liquids. The contact angle data is provided in table S1.

	Cyano	Mercapto	Fluoro
Water	55.2 ± 1.7	74.9 ± 2.7	96.4 ± 3.2
Diiodomethane	35.3 ± 3.4	36.4 ± 2.2	74.3 ± 2.4
Formamide	38.8 ± 2.1	58.1 ± 1.3	83.0 ± 1.8
Ethylene glycol	33.1 ± 1.8	39.5 ± 2.8	79.7 ± 2.0

Table S1: Advancing contact angle of probe liquids on functionalised templates

### Ellipsometry:

Ellipsometry is performed to measure the thickness of silane layer formed on glass surface as a result of silanisation process. The main hurdle in conducting ellipsometry on glass cover slip is the fact that the refractive index of glass and silane layer is very close, affecting the sensitivity of measurement. This was overcome by using silicon substrate which has a refractive index of 3.42, significantly different than that of silane layer (1.45). Silicon wafer produces an oxide layer (SiO<sub>2</sub>) on surface through oxidation. The silicon wafer will act similar to glass surface in silanisation due to the chemical composition of the surface oxide

layer. The Si [100] facet is subject to same silanisation process as explained before and ellipsometry is conducted on this surface. The data is fitted using Cauchy layer with  $A_n$  and  $B_n$  values fixed at 1.45 and 0.01 respectively. Both the oxide layer and silane layer are considered as part of Cauchy layer. The thickness of Cauchy layer is found out through data fitting as shown in figure S1 and silane layer thickness is calculated by subtracting the oxide layer thickness from total thickness.

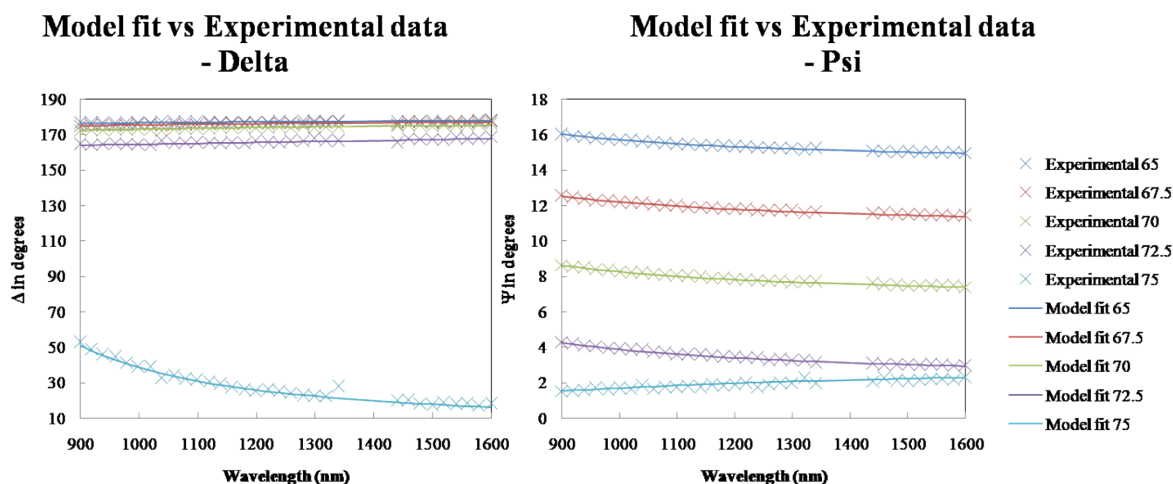


Figure S1: Experimental and fitted data for ellipsometry.

Characterisation of CBZ polymorphs:

Form II and form III polymorphs of CBZ are confirmed using Powder X-ray diffraction (PXRD). The PXRD pattern is shown in figure S2.

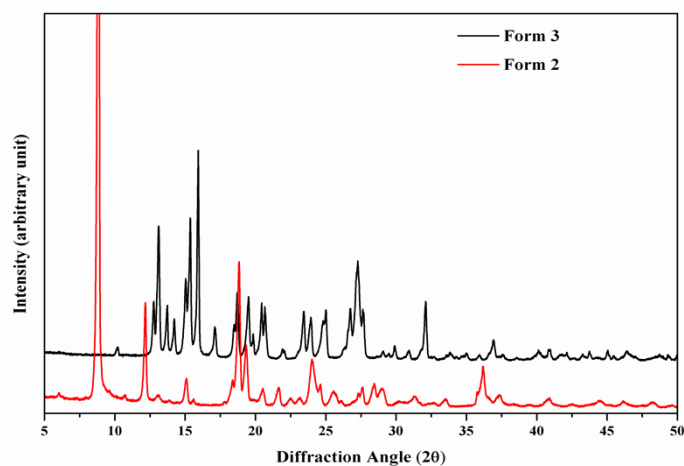


Figure S2: PXRD pattern for form II and form III CBZ polymorphs. The characteristic peaks at  $2\theta$  values for polymorphs are as follows: form II – 8.7, 12.2, 24.2; form III – 15.9, 17.1, 23.9.