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Supporting Information

Self-Assembly of Columnar Mesophases from Diaminotriazines

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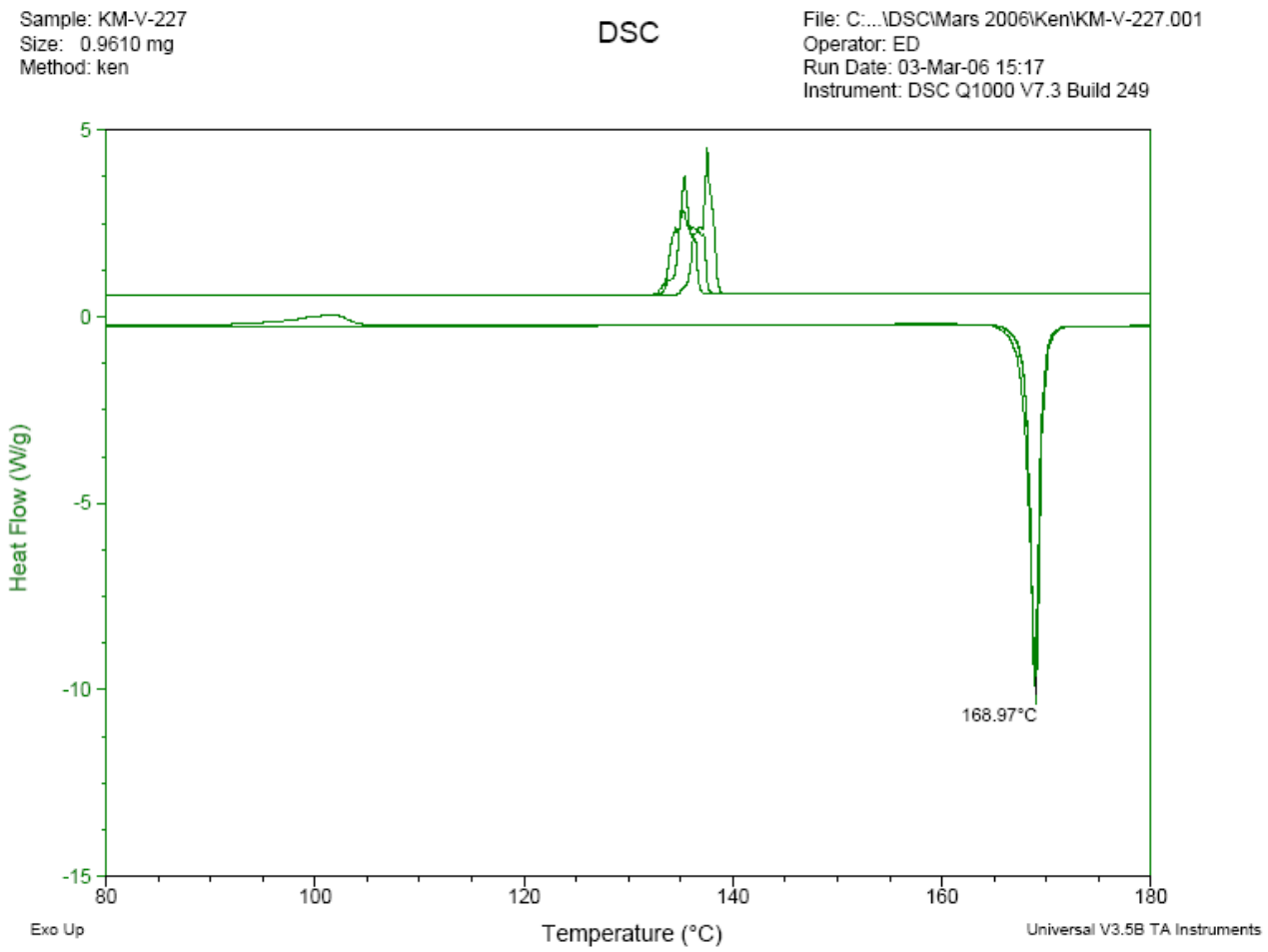

Figure S1. DSC Trace for compound **2a** over three heating and cooling cycles.

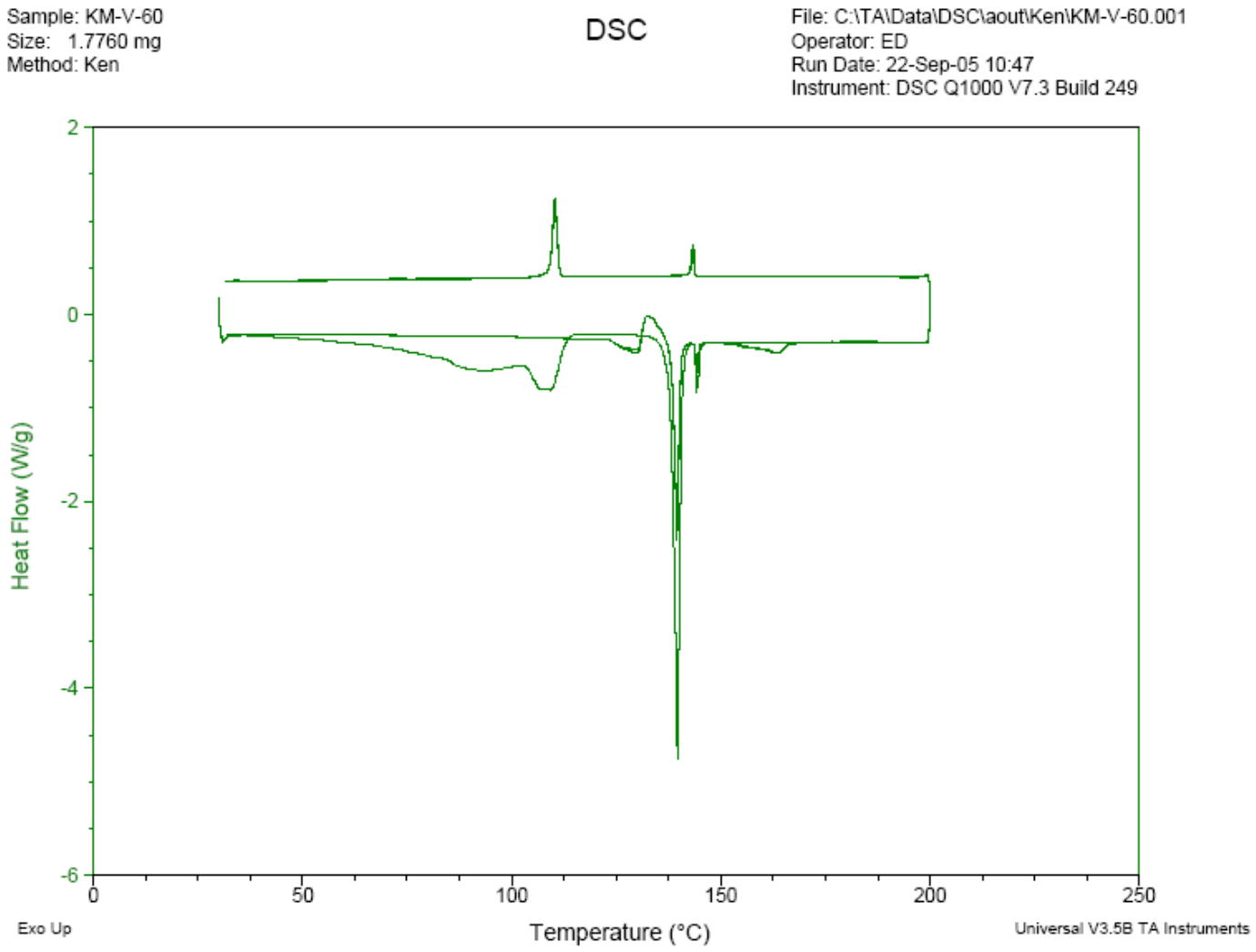

Figure S2. DSC Trace for compound **2b** over three heating and cooling cycles.

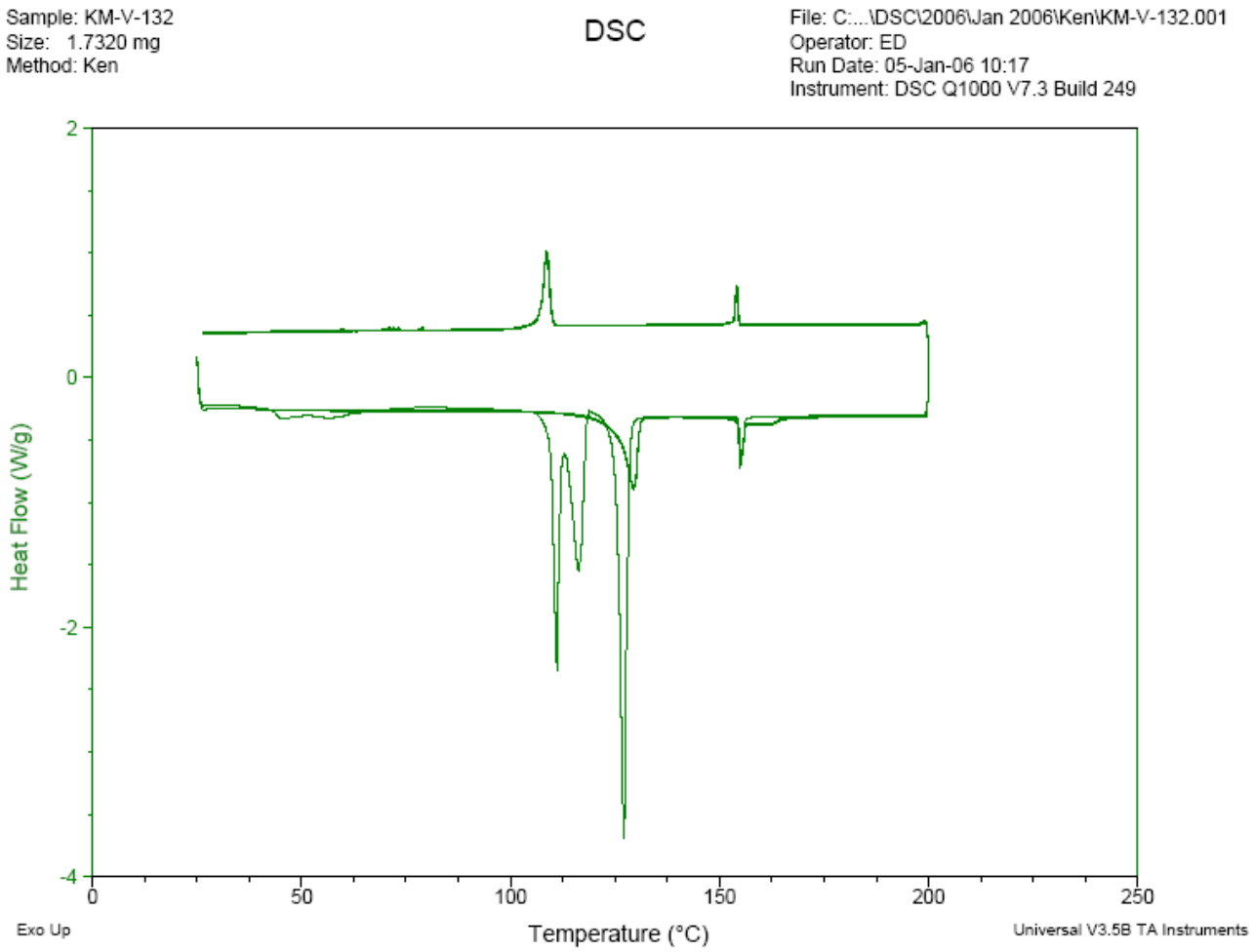

Figure S3. DSC Trace for compound **2c** over three heating and cooling cycles.

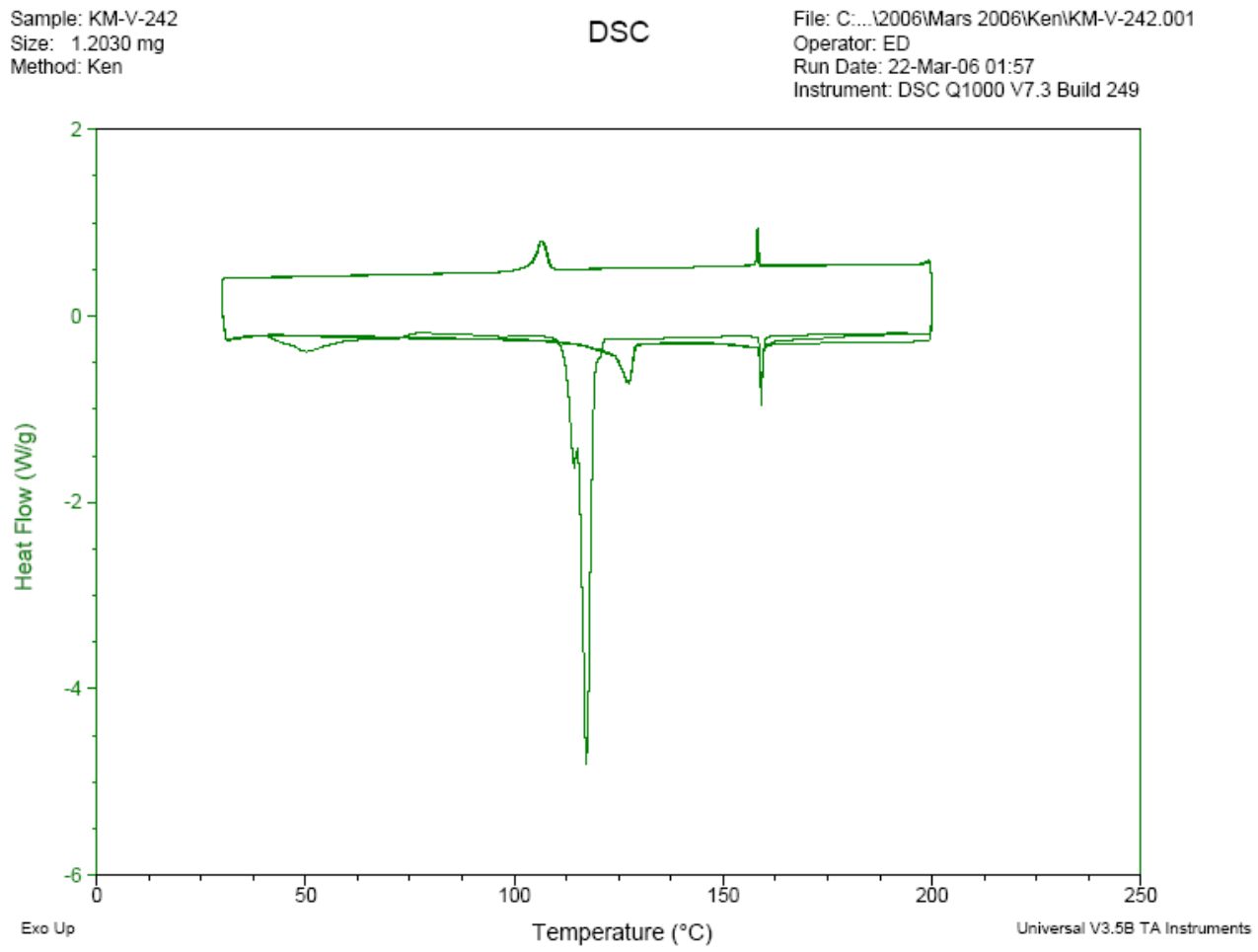

Figure S4. DSC Trace for compound **2d** over three heating and cooling cycles.

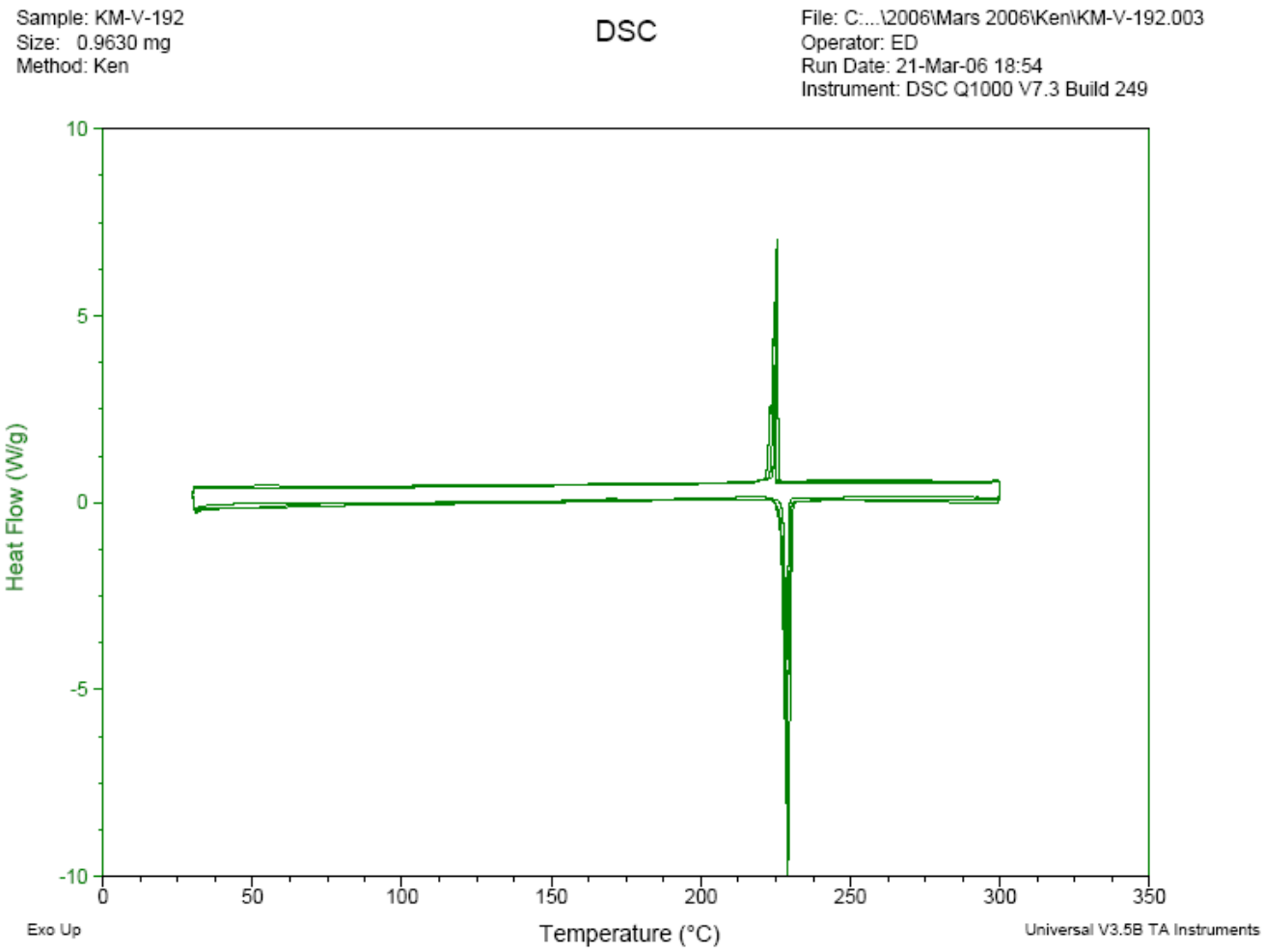

Figure S5. DSC Trace for compound **3** over three heating and cooling cycles.

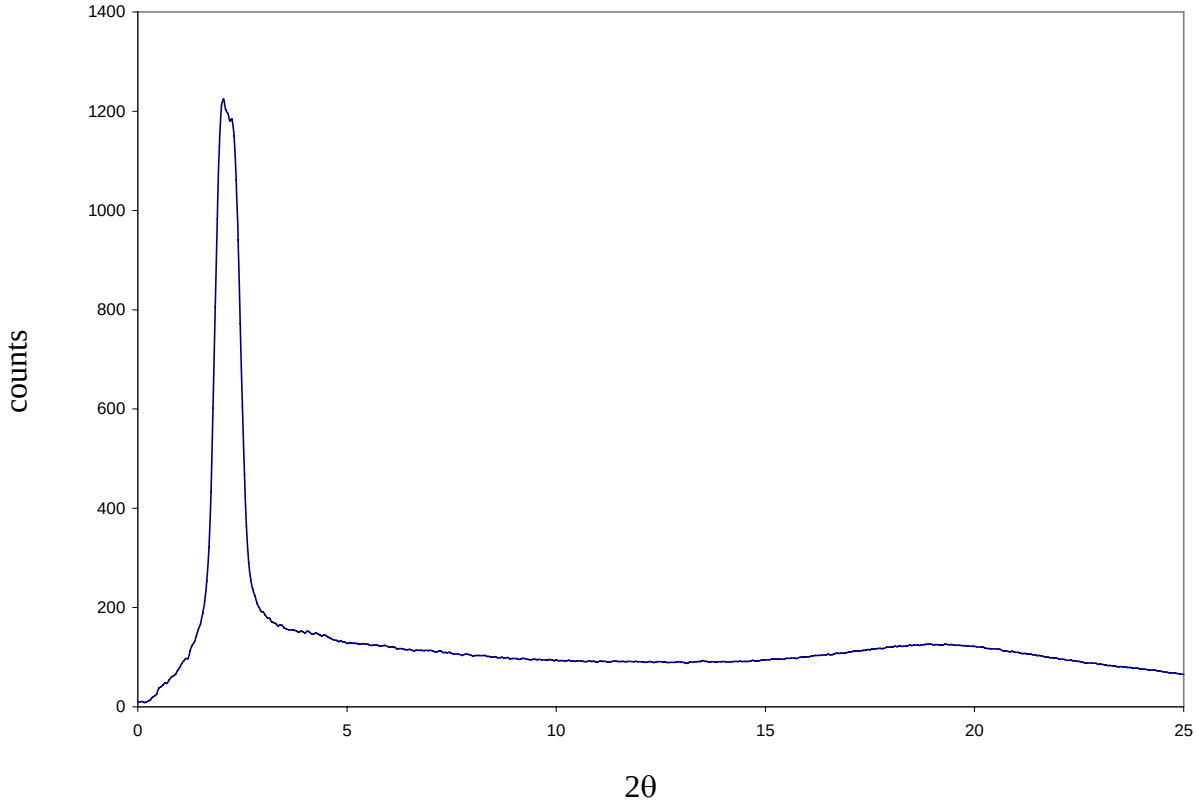

Figure S6. X-Ray diffractogram for compound **2c** at 132 °C.

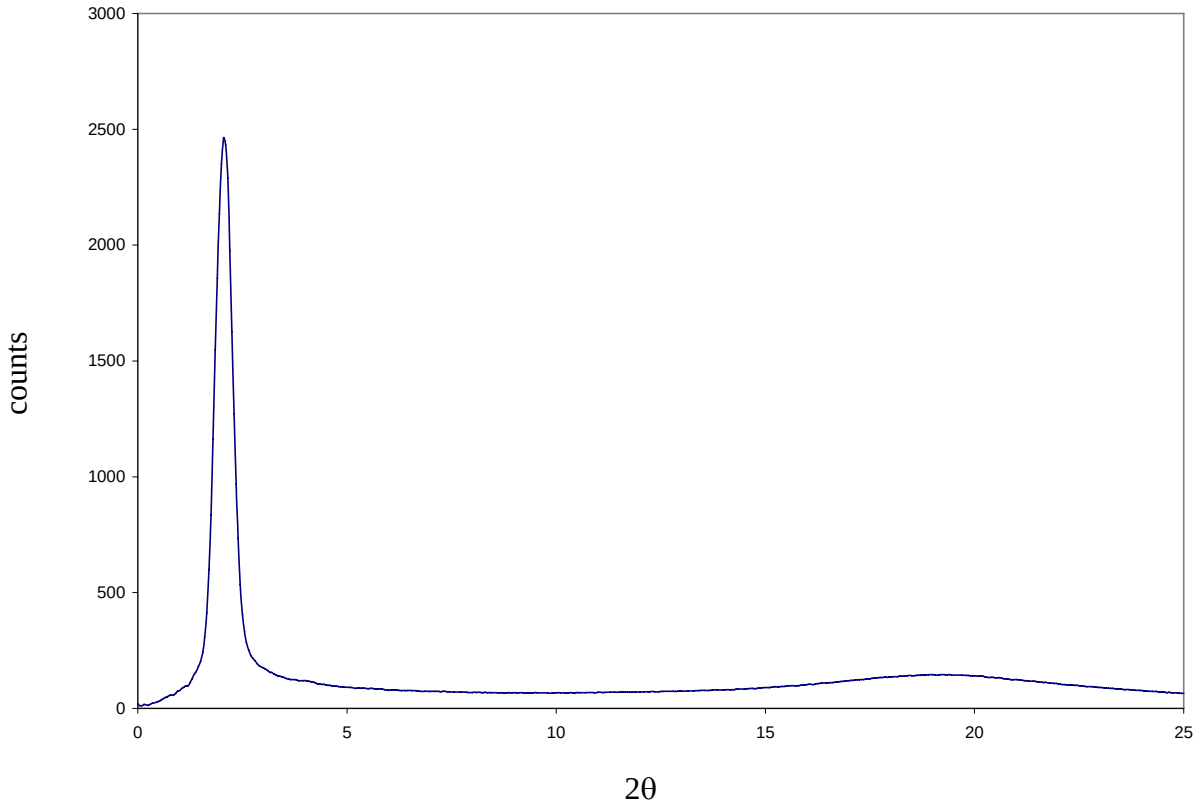

Figure S7. X-Ray diffractogram for compound **2d** at 132 °C.

Calculation of Lattice Parameters and Estimation of Density

The lattice parameters (*a*) for compounds **2b-d** were calculated from the observed (100) reflections using the following equation: $a = 2(d_{100})/\sqrt{3}$. The unit cell volume was calculated using the following equation: $V = (\sqrt{3}/2)a^2c \times 10^{-24}$, where V is the unit cell volume in cm^3, and *a* and *c* are the lattice parameters in Angstroms. The value of *c* was assumed to be 3.7 Å, which is a reasonable estimate for the distance between molecules in a columnar stack and corresponds to values observed for similar compounds.[1] The mass of each unit cell was calculated assuming six molecules per unit cell.

Table S1. Observed spacings from X-Ray measurements, and the corresponding lattice parameters and calculated densities.

Compound	R =	Observed Spacing (1 0 0) Reflections (Å)	Lattice Parameters (Å)	Calculated density (g/cm^3)
2b	C_8H_{17}	d_{100} = 39.1	*a* = 45.1	0.80
2c	$C_{10}H_{21}$	d_{100} = 41.1	*a* = 47.4	0.80
2d	$C_{12}H_{25}$	d_{100} = 42.9	*a* = 49.5	0.80

1. J. Barberá, L. Puig, P. Romero, J. L. Serrano, T. Sierra, *J. Am. Chem. Soc.* 2005, **127**, 458-464.