Electronic Supplementary Material (ESI) for Physical Chemistry Chemical Physics.

Thermal dissociation of anthracene photodimers in the condensed state: kinetic evaluation and complex phase behaviour Supplementary information

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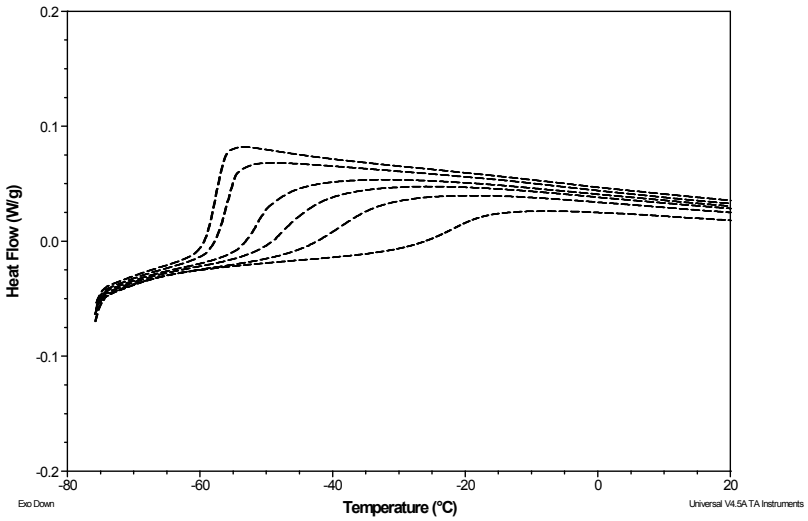

Figure SI.1 DSC result for the thermal dissociation of dimer D1 during cyclic isothermal measurements (heating and cooling at 10 K min^{-1} and isothermal segments at 140 °C)

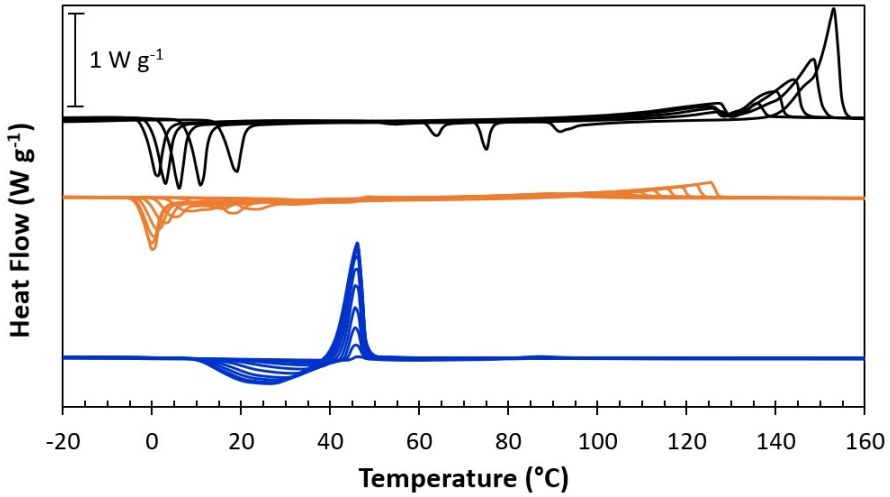

Figure SI2 Exploded view of Figure 8(c): (black) First the dimer D2 crystallization and melting peaks decrease and a mixed phase is formed. (orange) Then, as the dimer continues to dissociate, the crystallization and melting peaks of the mixed phase decrease. (blue) Finally, the formed monomer starts to crystallize and melt, the peaks increase until only monomer A2 is left.

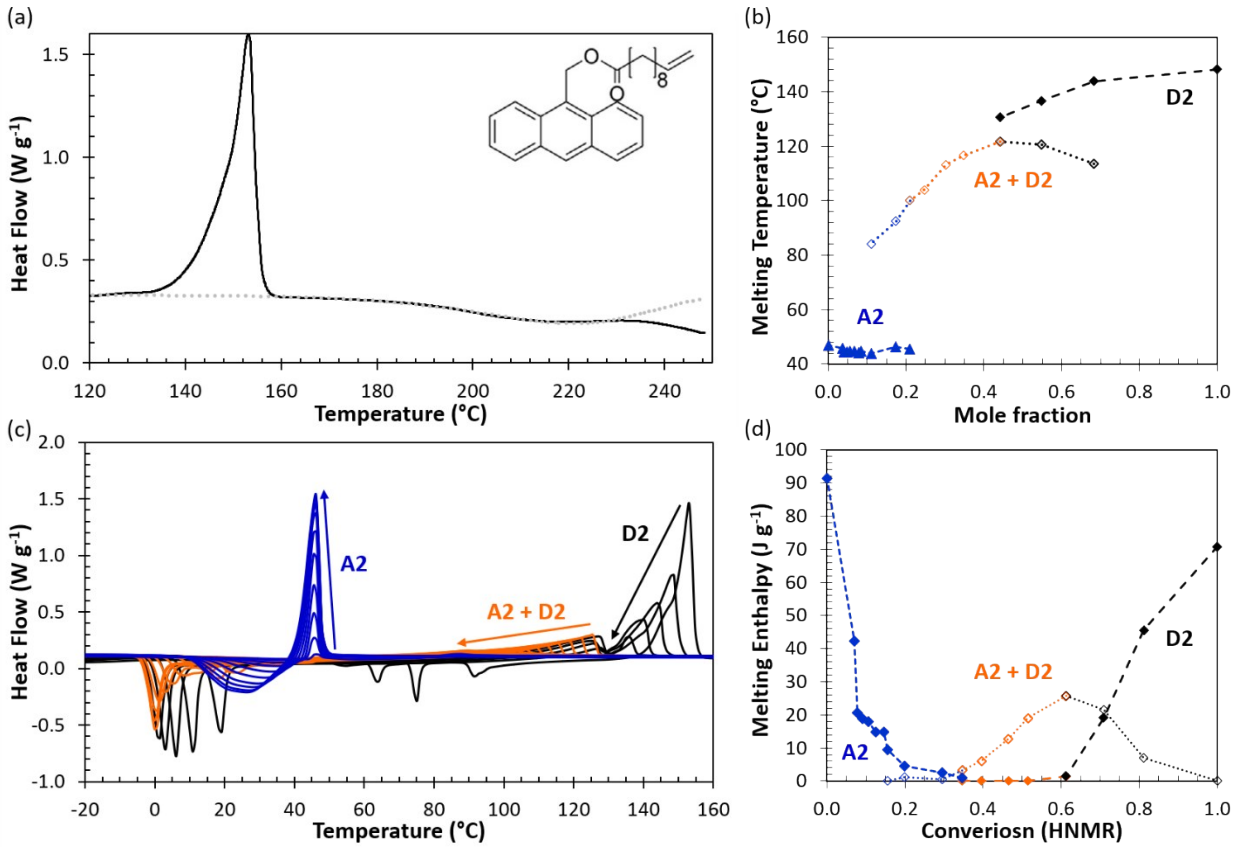

Figure SI3 Alternative colour version of Figure 8 in the manuscript. Thermal dissociation of anthracene dimer D2: (a) Experimental (DSC, solid line) and simulated (FTIR, dotted line) heat flow at 10 K min^{-1}. (b) Melting points of dimer D2, monomer A2 and a eutectic composition during (c) quasi-isothermal dissociation cycles at 165 °C and (d) corresponding melting enthalpies. (black lines and markers) First the dimer D2 crystallization and melting peaks decrease and a mixed phase is formed. (orange) Then, as the dimer continues to dissociate, the crystallization and melting peaks of the mixed phase decrease. (blue) Finally, the formed monomer starts to crystallize and melt, the peaks increase until only monomer A2 is left.