Supplementary Material (ESI) for Journal of Materials Chemistry

Supporting Information

Liquid Crystalline Phthalocyanine-Fullerene Dyads

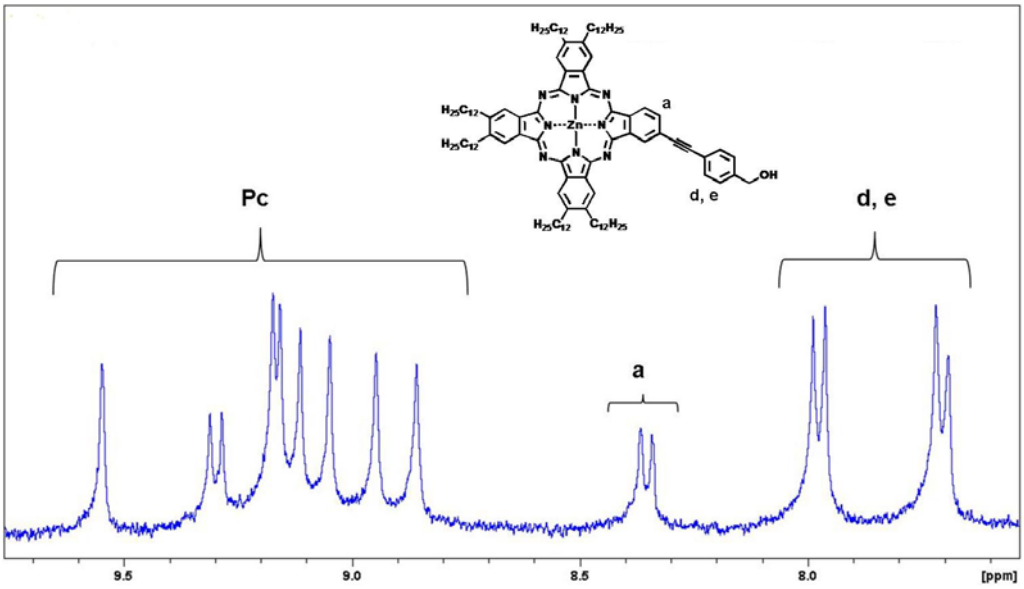
Mine Ince,[a] M. Victoria Martínez-Díaz,[a]* Joaquín Barberá,[b]* and Tomás Torres[a,c]*

[a] *Departamento de Química Orgánica, Facultad de Ciencias,Universidad Autónoma de Madrid, Cantoblanco 28049-Madrid, Spain. E-mail: tomas.torres@uam.es*

[b] *Departamento de Química Orgánica-ICMA, Universidad de Zaragoza-CSIC, 50009 Zaragoza, Spain. E-mail: jbarbera@unizar.es*

[c] *IMDEA-Nanociencia. Facultad de Ciencias, Cantoblanco, 28049-Madrid, Spain*

Figure S1. ^{1}H NMR and MS spectra of Pc **7.**



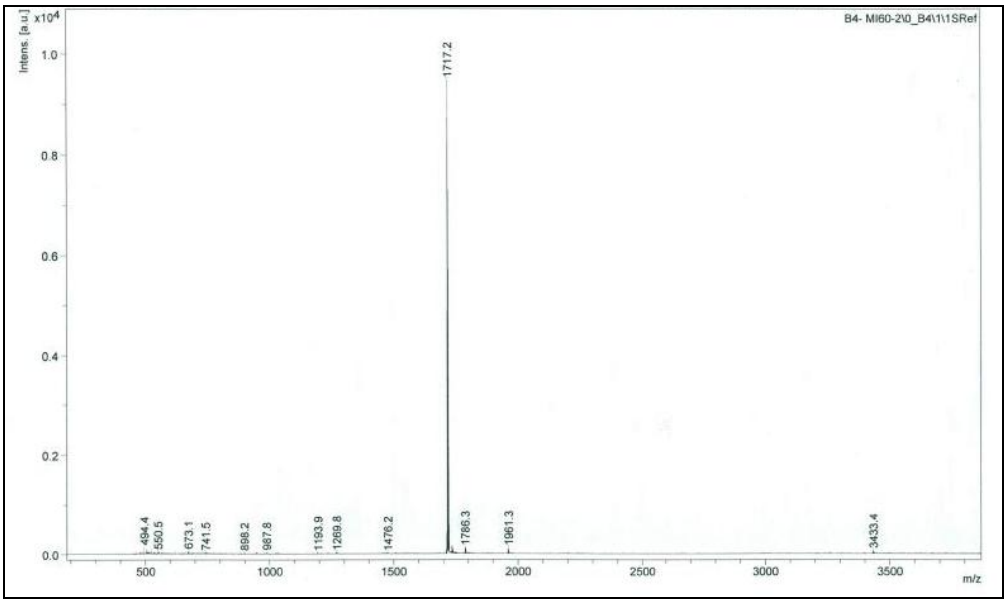
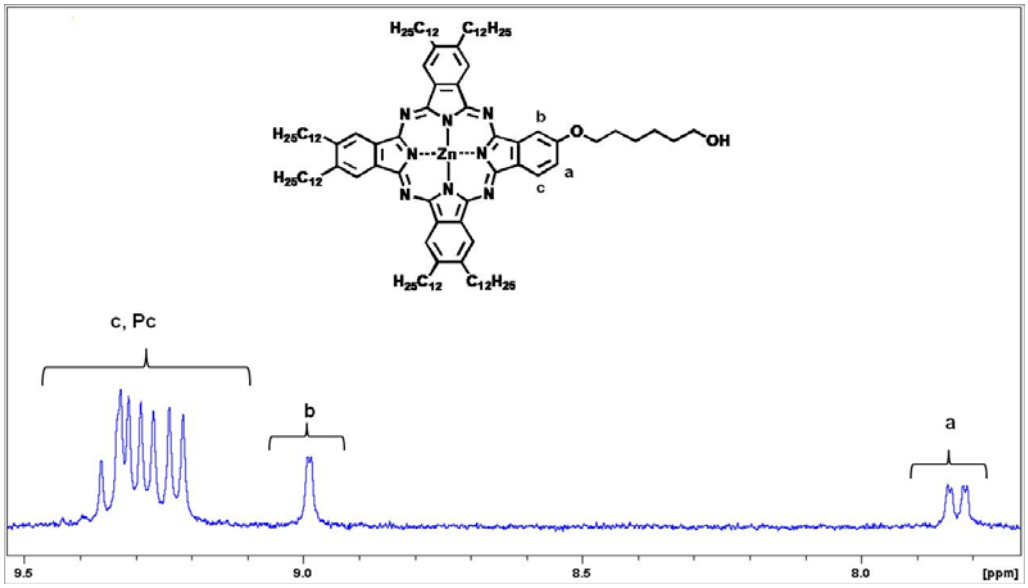


Figure S2. ^{1}H NMR and MS spectra of Pc **8.**



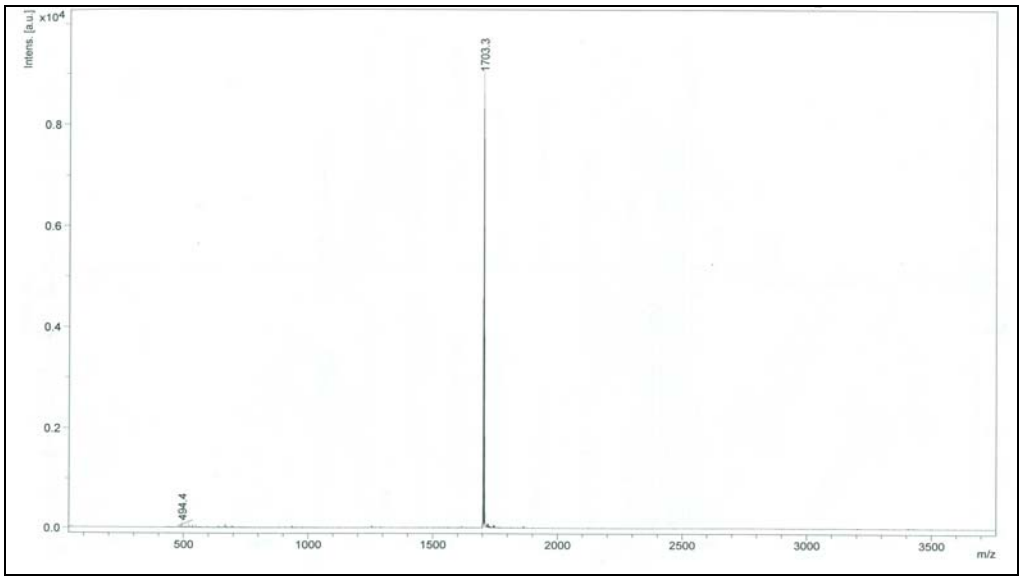
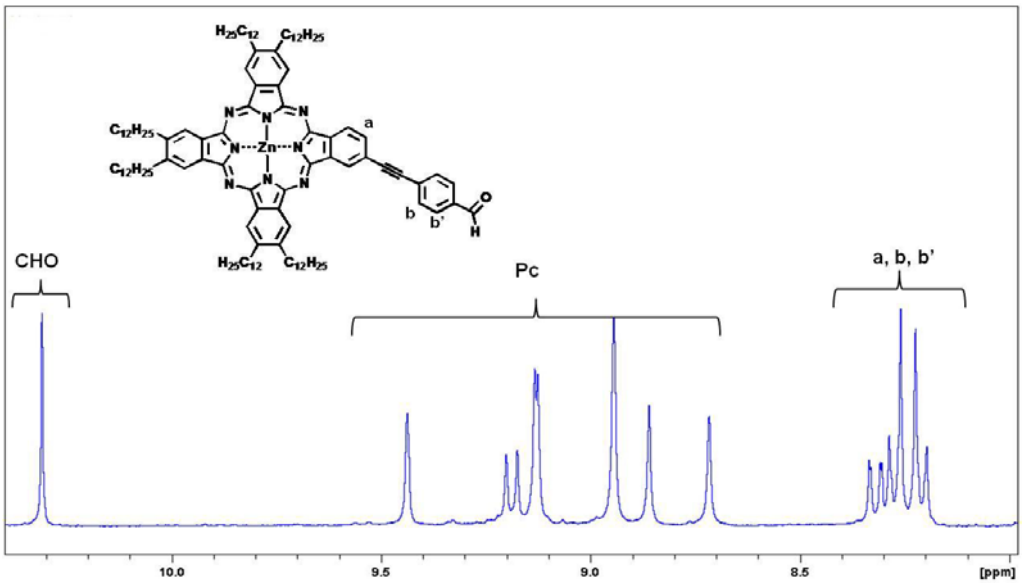


Figure S3. ^{1}H NMR and MS spectra of Pc **9.**



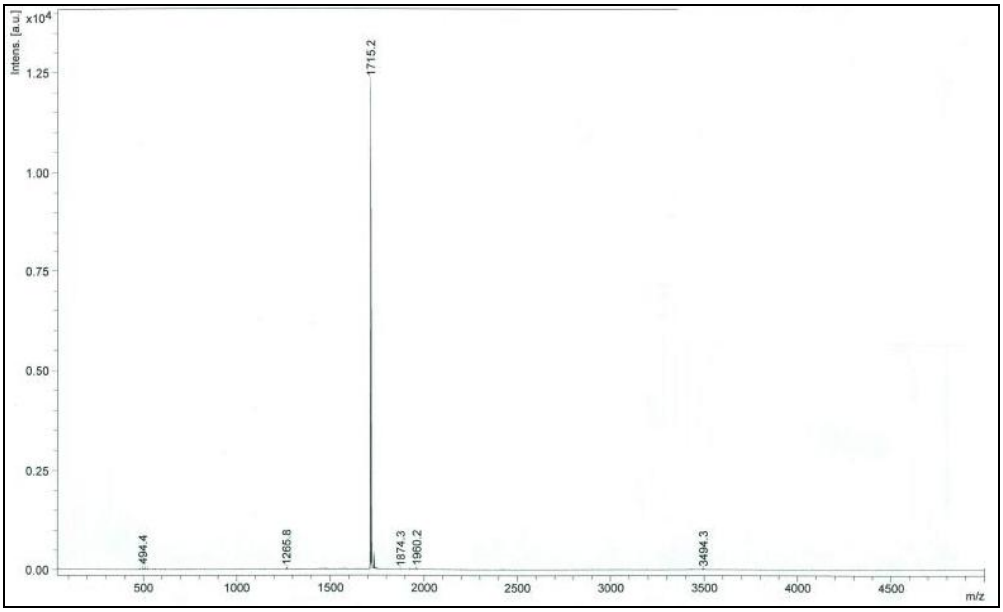
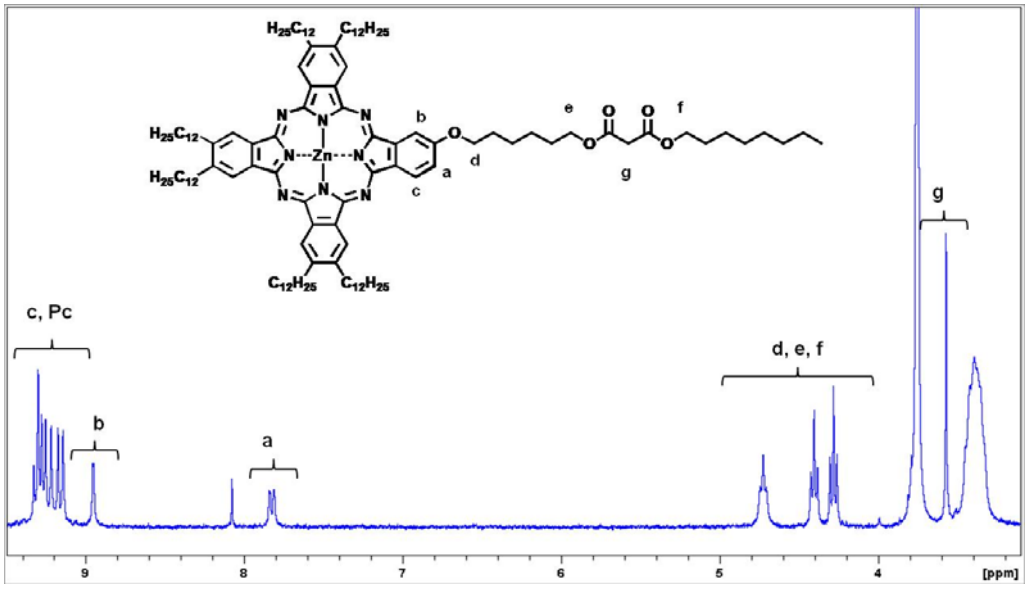


Figure S4. ^{1}H NMR and MS spectra of Pc **11.**



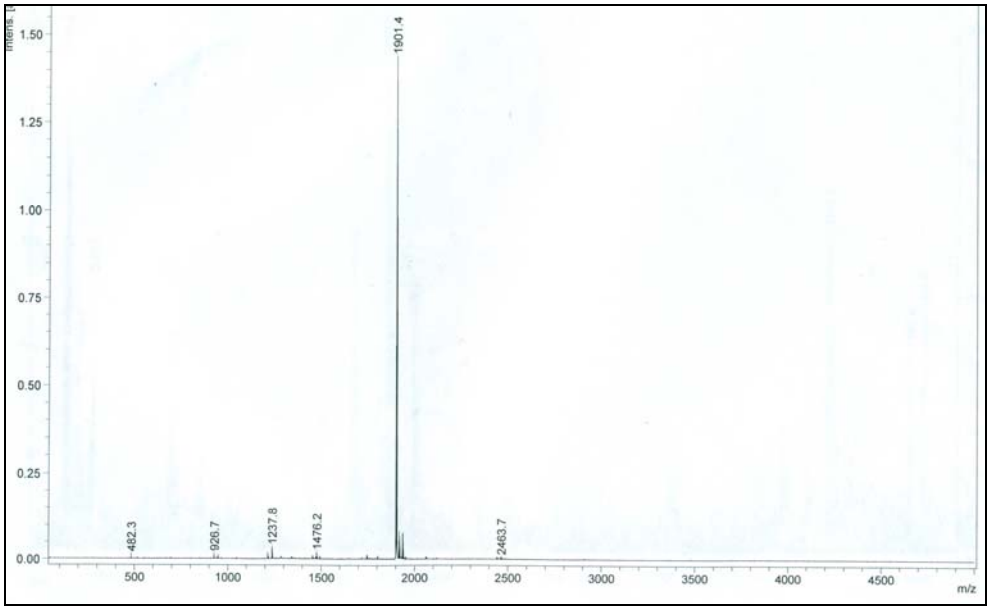
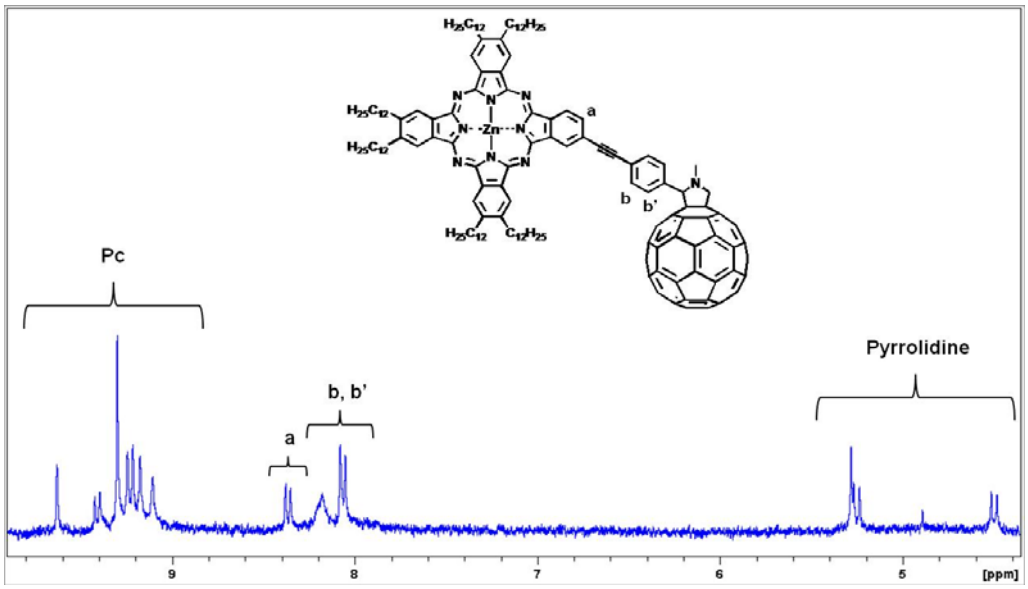


Figure S5. ^{1}H NMR and MS spectra of Pc-C_{60} dyad **1.**



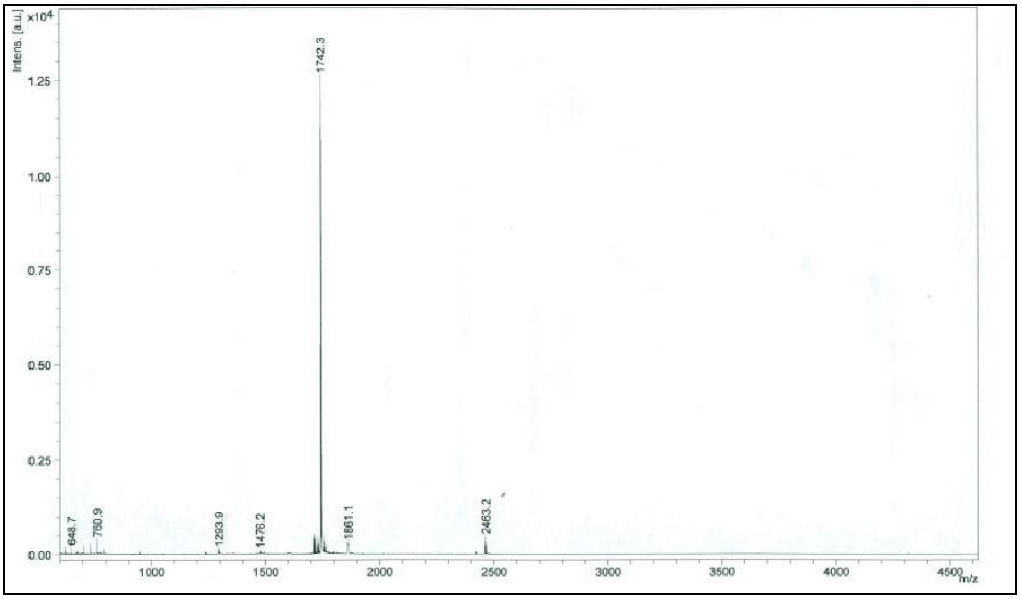
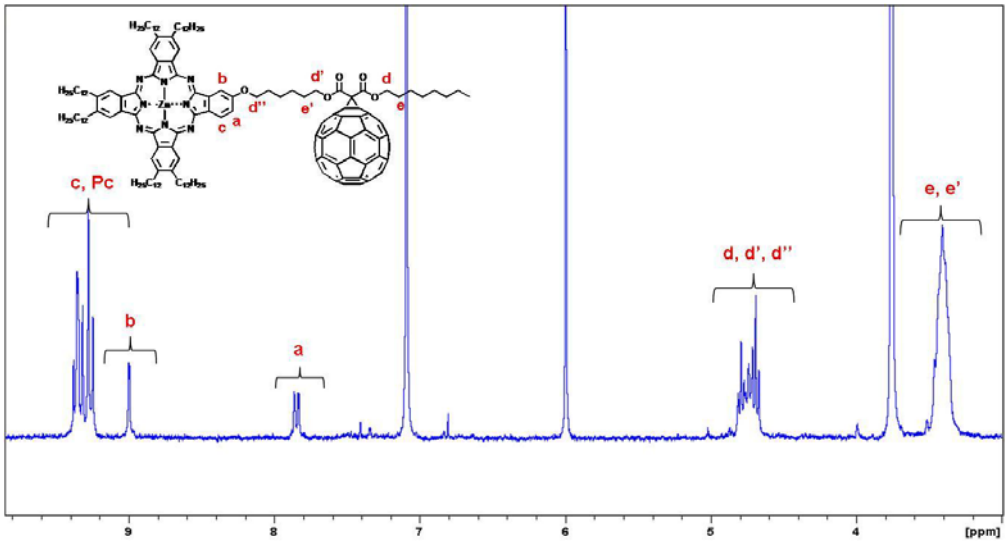


Figure S6. ^{1}H NMR and MS spectra of Pc-C_{60} dyad **2.**



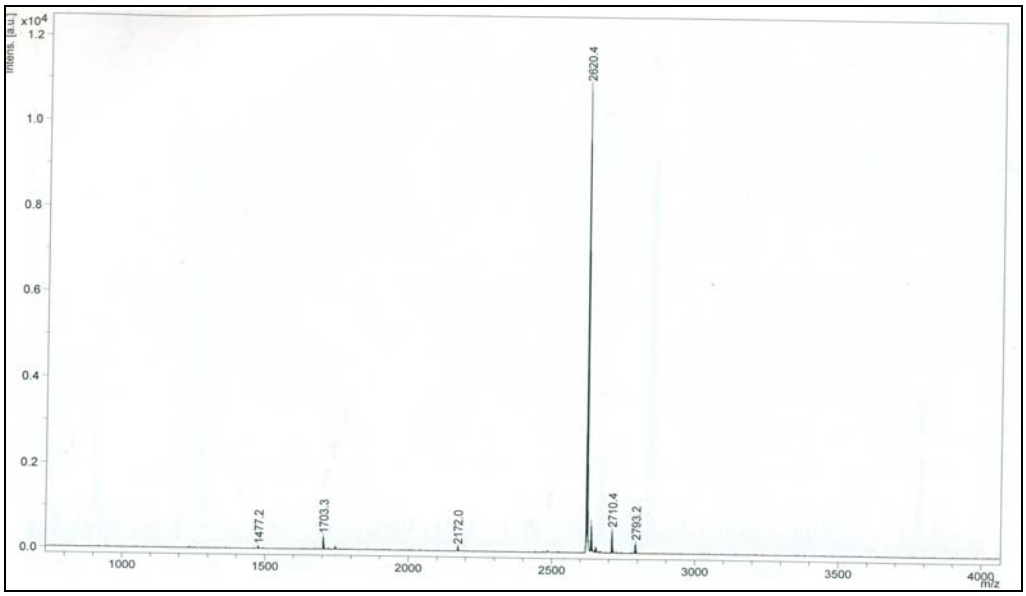
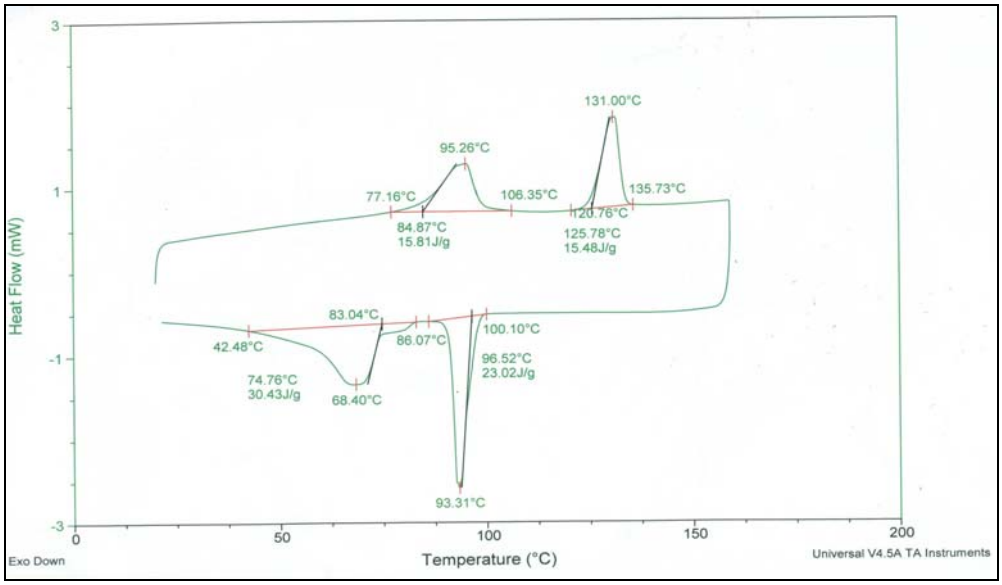


Figure S7. The DSC curves and texture of symmetric Pc **6** between crossed polarizers.



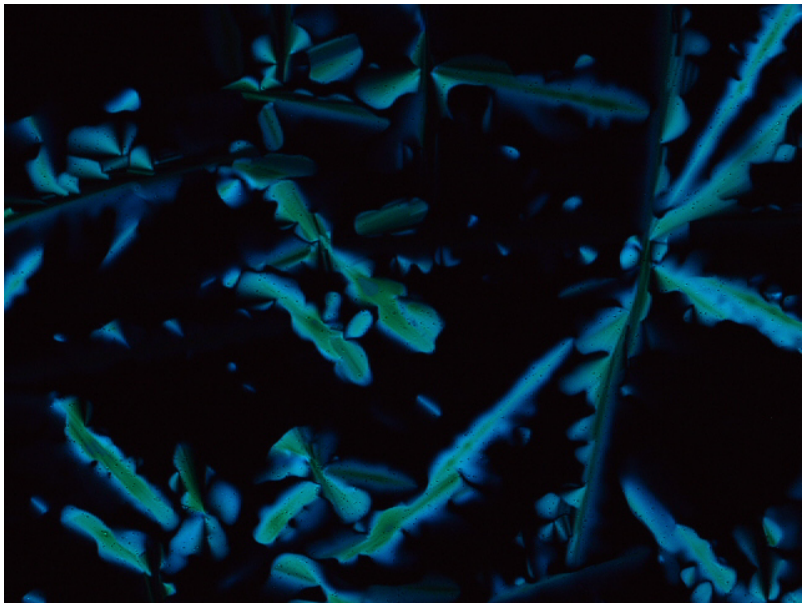
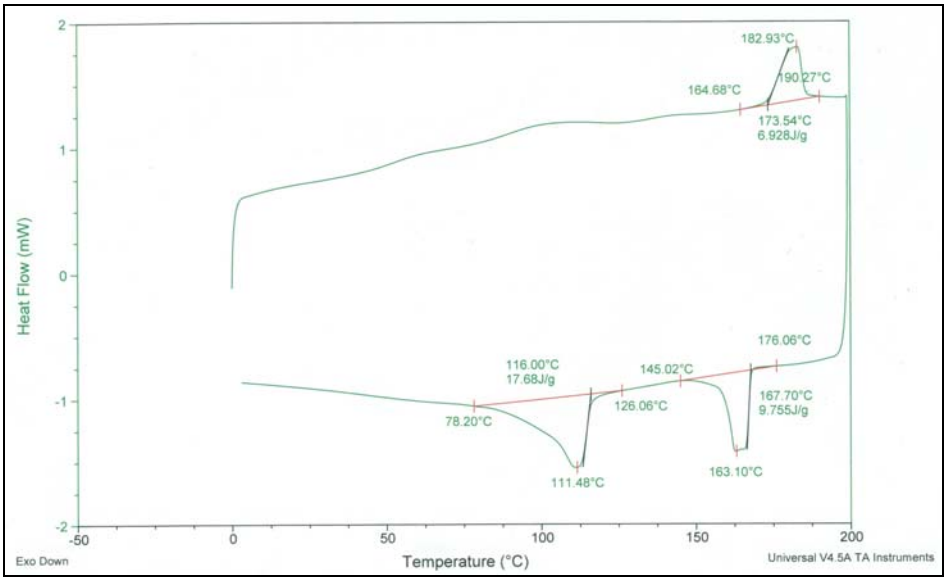


Figure S8. The DSC curves and texture of Pc **7** between crossed polarizers.



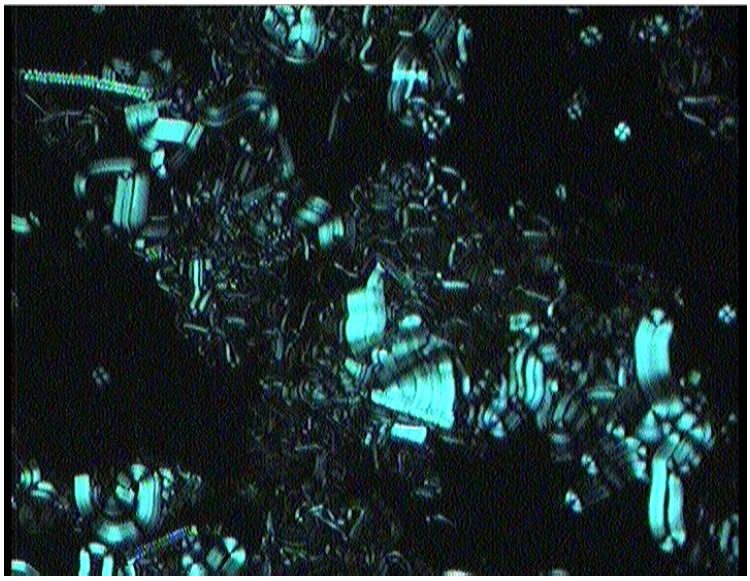
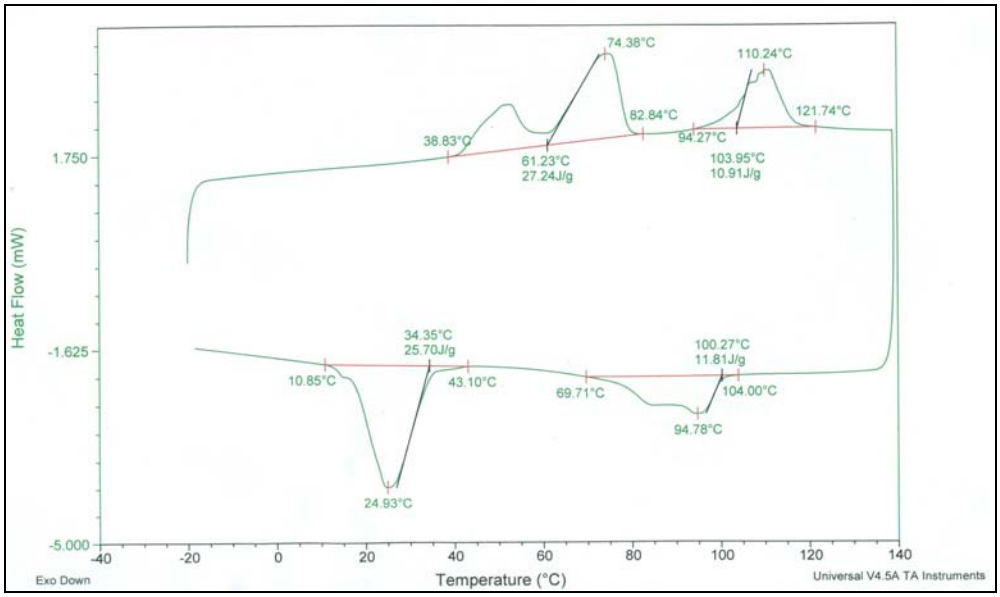


Figure S9. The DSC curves and texture of Pc **8** at 50 ºC between crossed polarizers cooling from the isotropic liquid (120 ^{o}C).



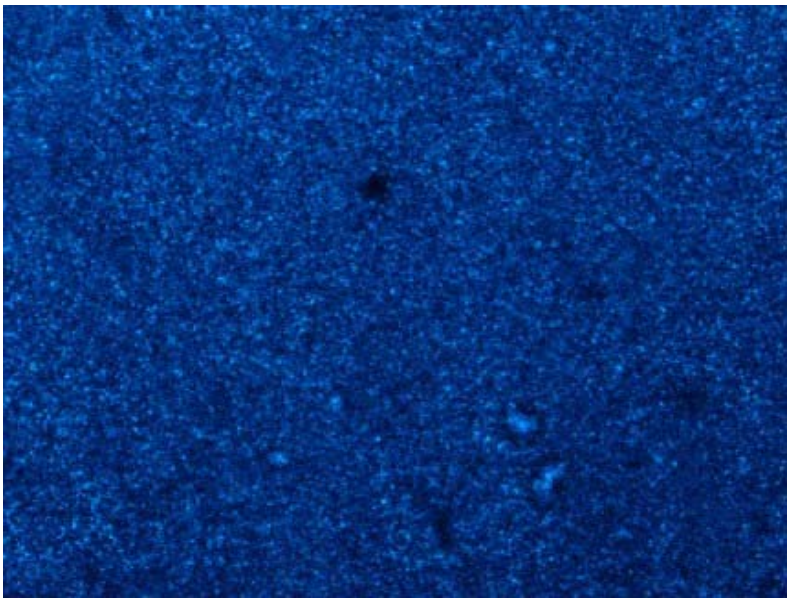


Figure S10. The DSC curves and texture of a 1:2 blend of PcC_{60} **1:**Pc **6** between crossed polarizers.

.

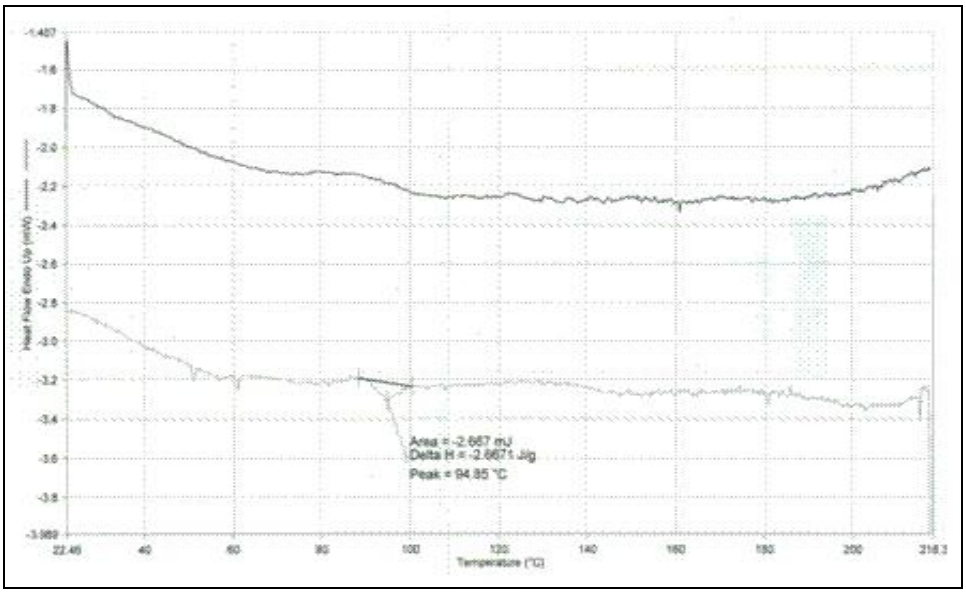


Figure S11. The DSC curves of Pc-C_{60} dyad **2.**

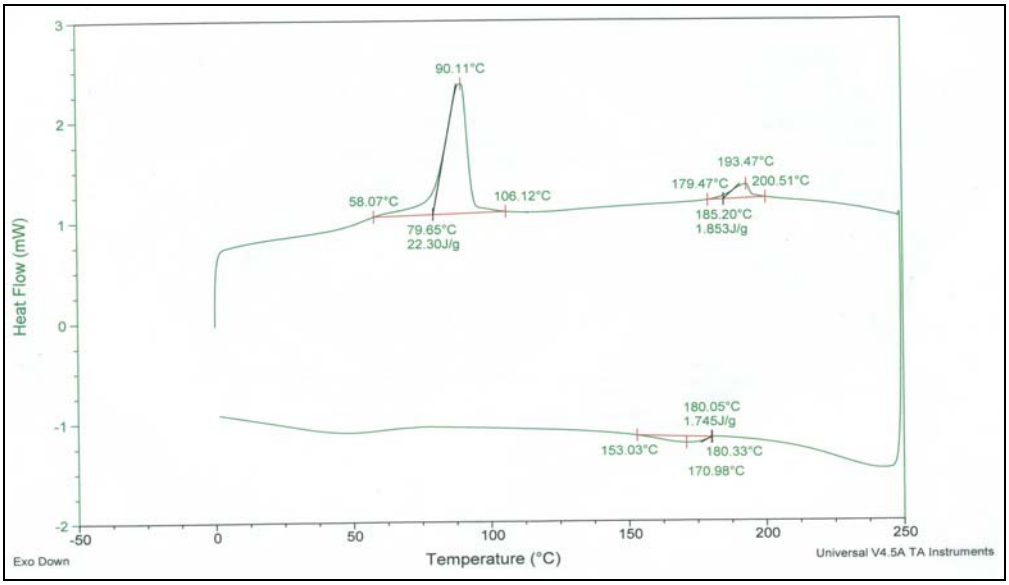


Table S1. X-ray data for the mesophases of compoundss 2, 6 and 7 [a].

Compound	Temperature (ºC)	Phase	d_{meas}(Å)	d_{calc} (Å)	*h k*	Lattice constants (Å)
2	108	Col_r (*p2gg*)	60.4 25.4 20.0 15.8 14.1 4.7 [b]	60.0 25.4 20.0 16.3 14.0	1 0 1 1 3 0 3 1 0 2	*a* = 60 *b* = 28
6	131	Col_h	27.4 16.1 13.1 10.3 4.7 [b] 3.6 [b]	27.2 15.7 13.6 10.3	1 0 1 1 2 0 2 1	*a* = 31.4 *h* = 3.6
7	190	Col_r (*p2gg*)	42.3 29.9 24.6 20.8 17.0 13.9 12.4 9.8 4.9 [b]	42.0 30.0 24.4 21.0 17.2 14.1 14.0 12.7 12.2 9.9 9.7	1 0 0 1 1 1 2 0 2 1 1 2 3 0 3 1 2 2 4 1 1 3	*a* = 42 *b* = 30

[a] d_{meas} and d_{calc} are the measured and calculated diffraction spacing; *hk* are the indexations of the reflections corresponding to the two-dimensional lattice of the Col_r or Col_h phase; *a, b* are the lattice parameters of the Col_r phase; *a* is the lattice parameter of the Col_h phase; *h* is the mean stacking distance.
[b] Diffuse maximum