

Development of Alkylthiazole-Based Novel Thermoelectric Conjugated Polymers for Facile Organic Doping

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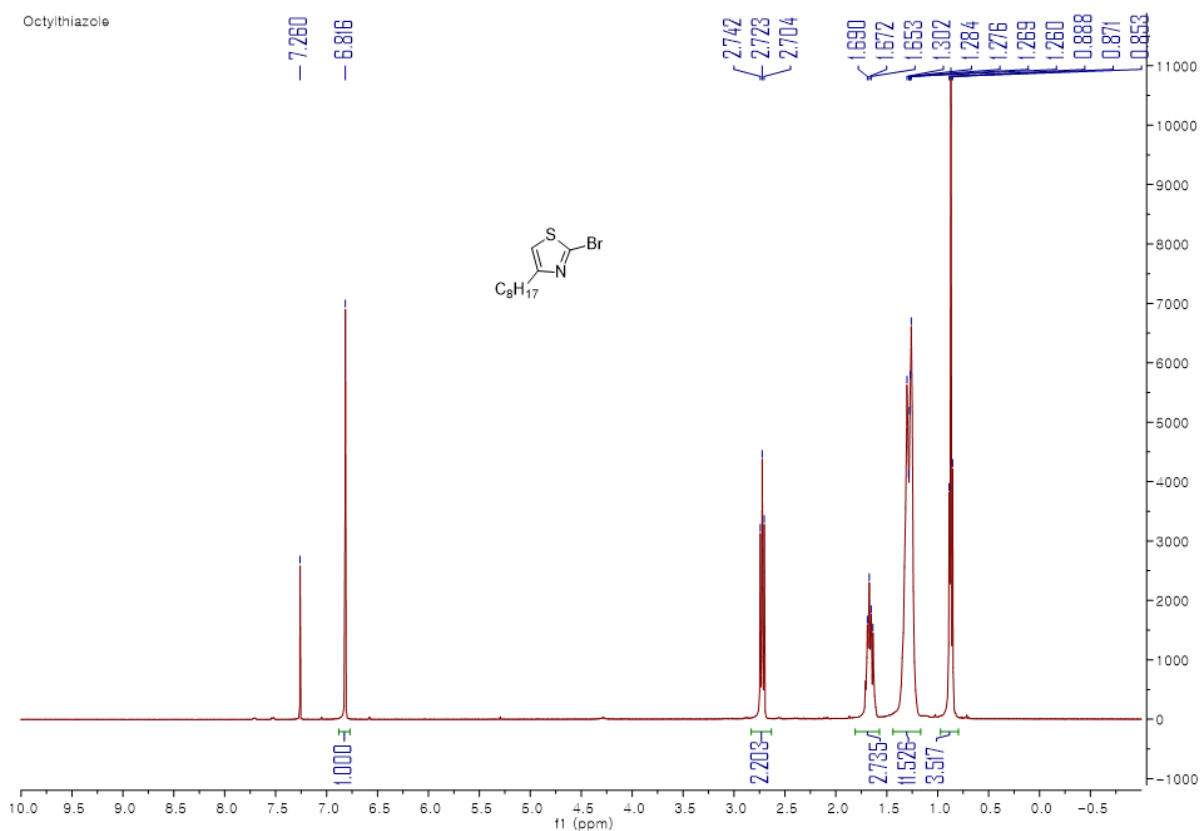


Figure S1. ¹H NMR spectrum of compound 1

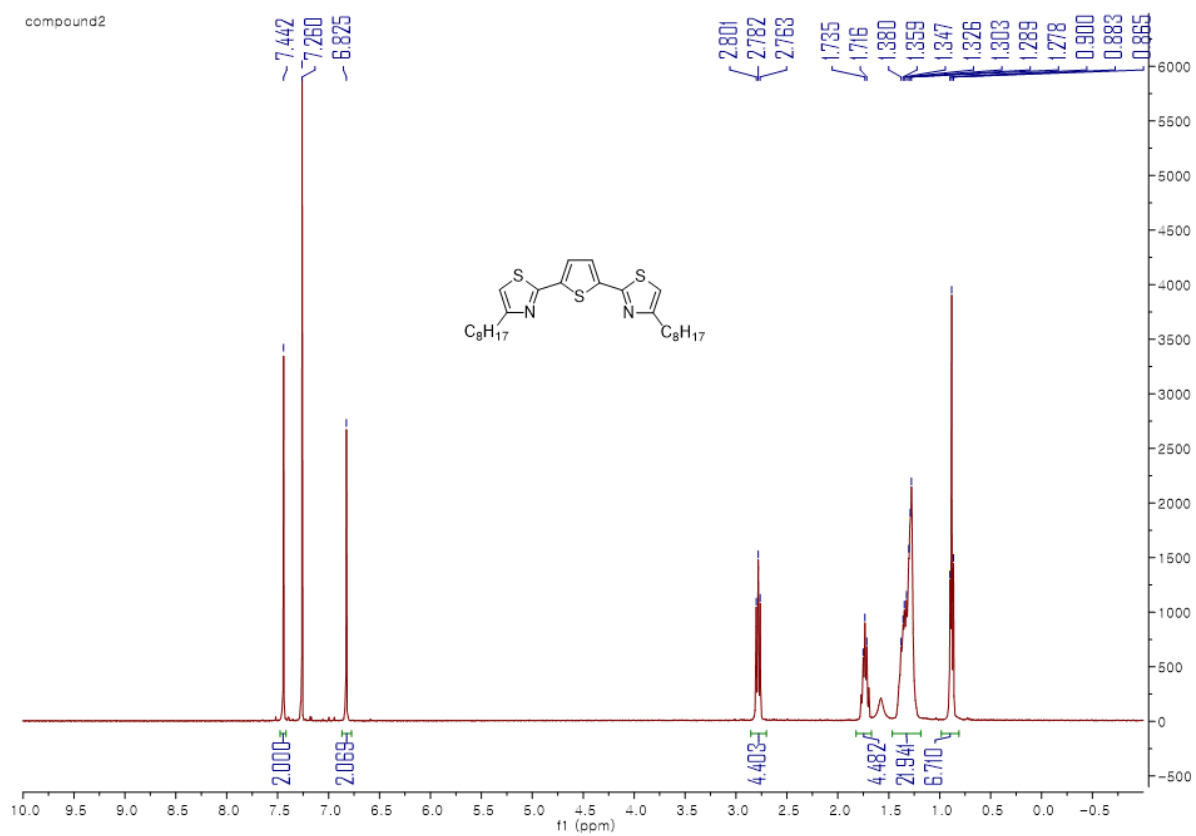


Figure S2. ^1H NMR spectrum of compound 2

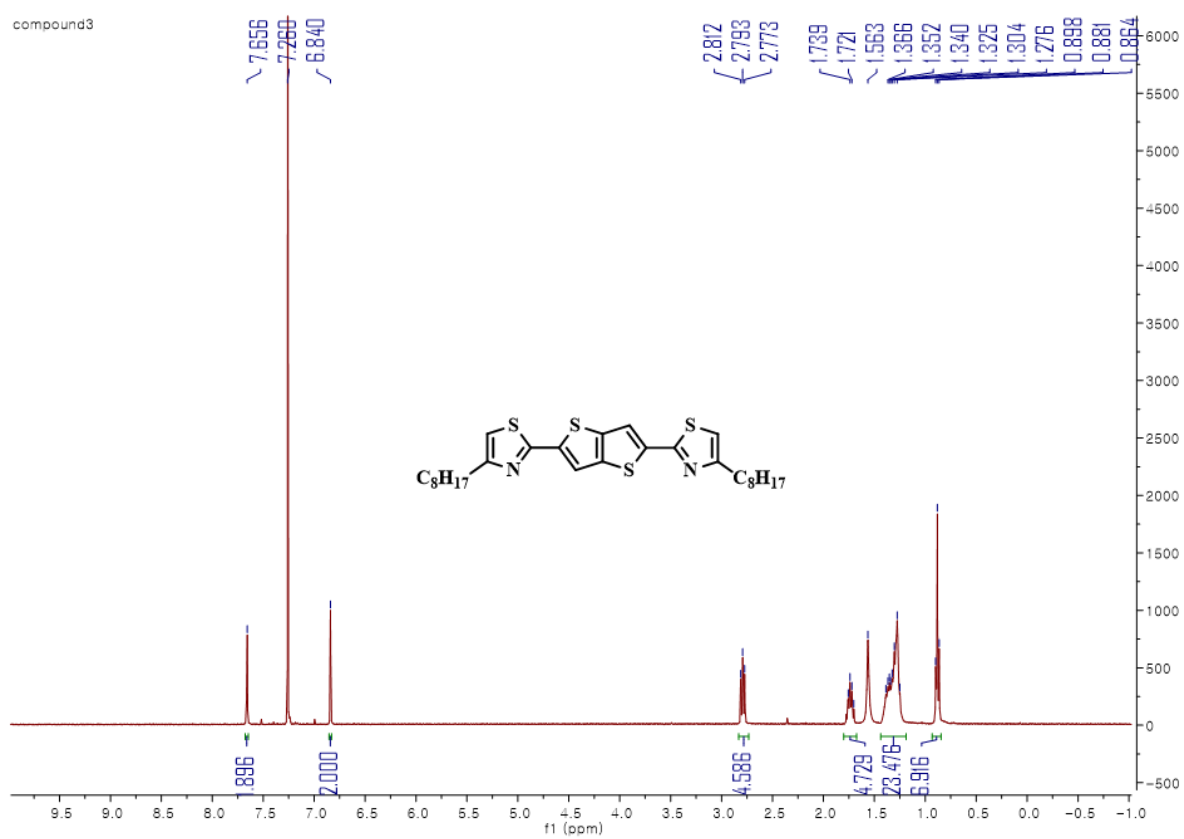


Figure S3. ^1H NMR of compound 3

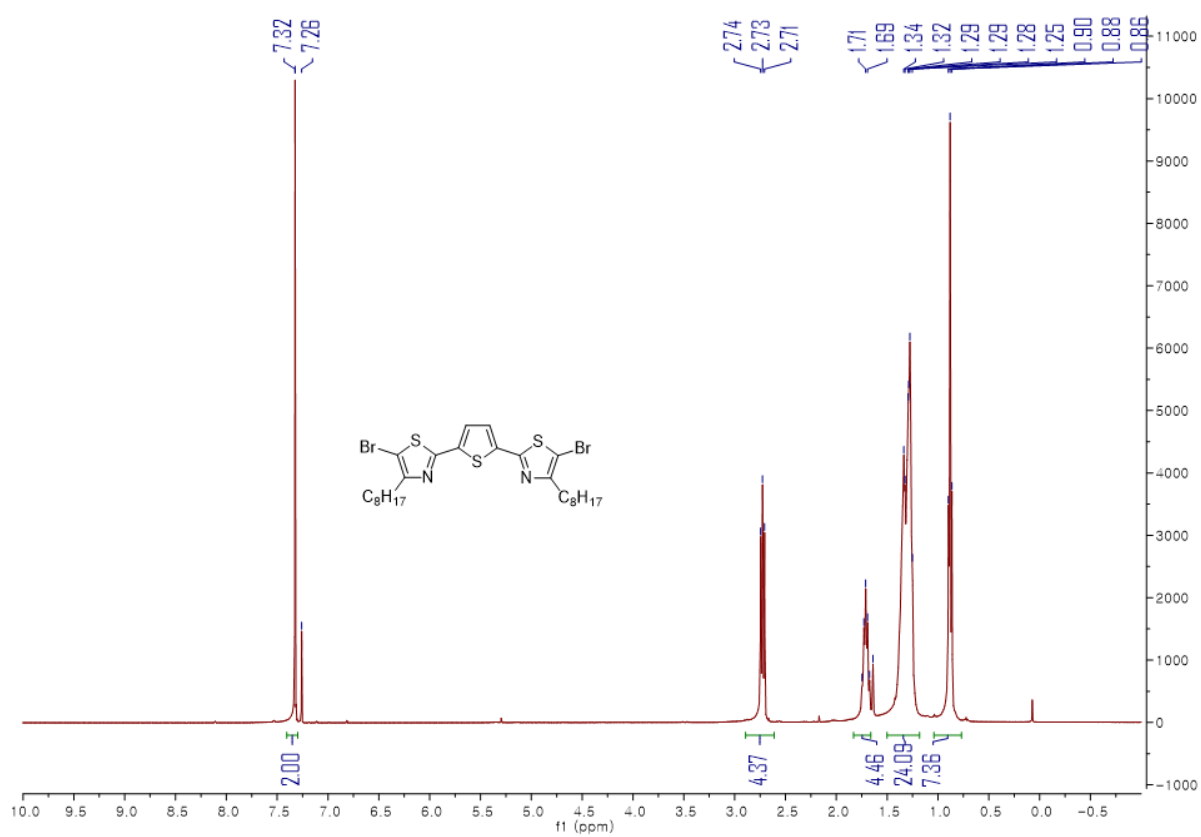


Figure S4. ^1H NMR spectrum of Tz

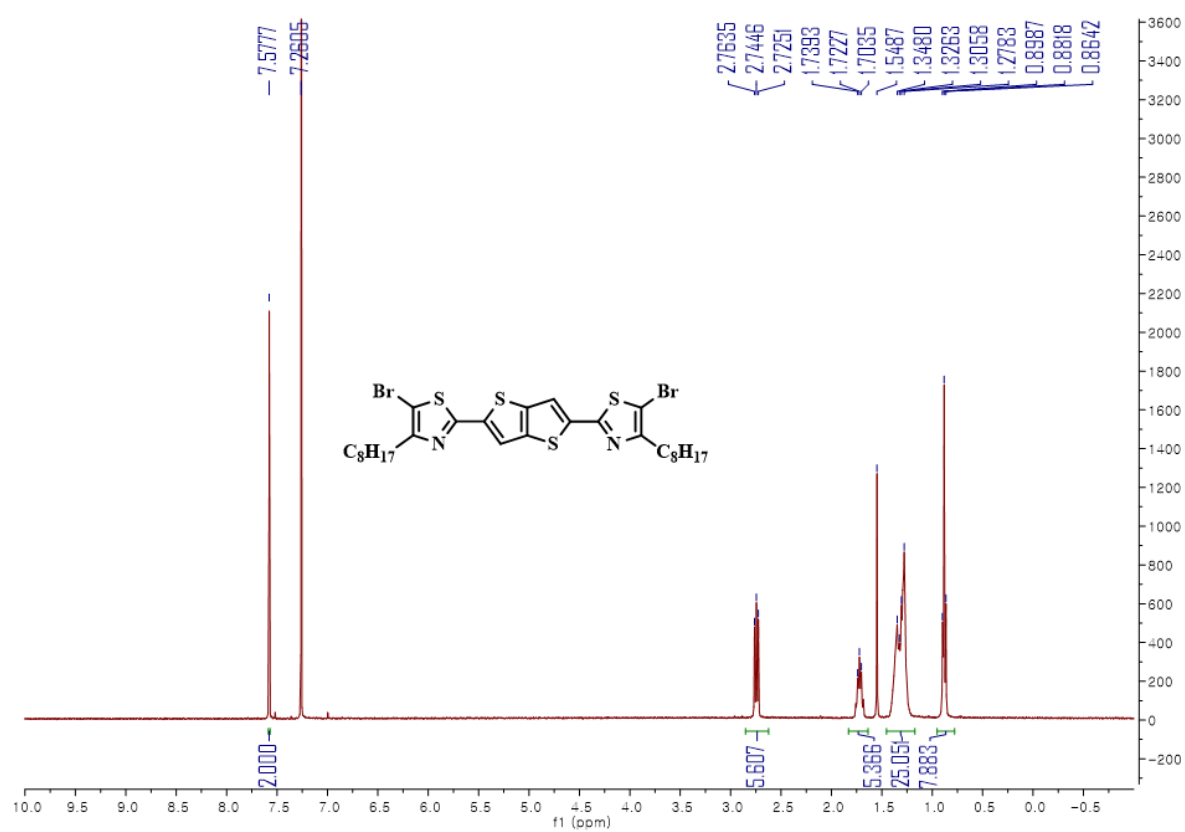


Figure S5. ¹H NMR spectrum of TTz

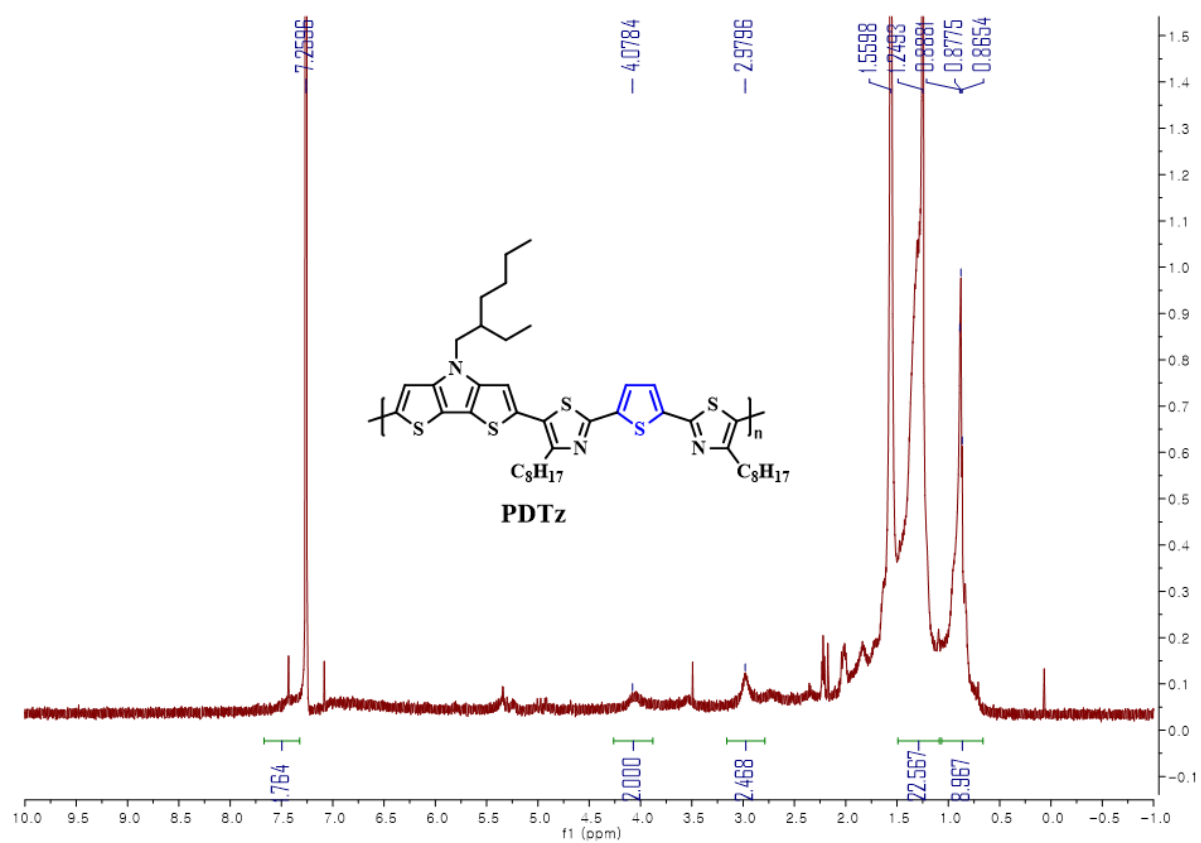
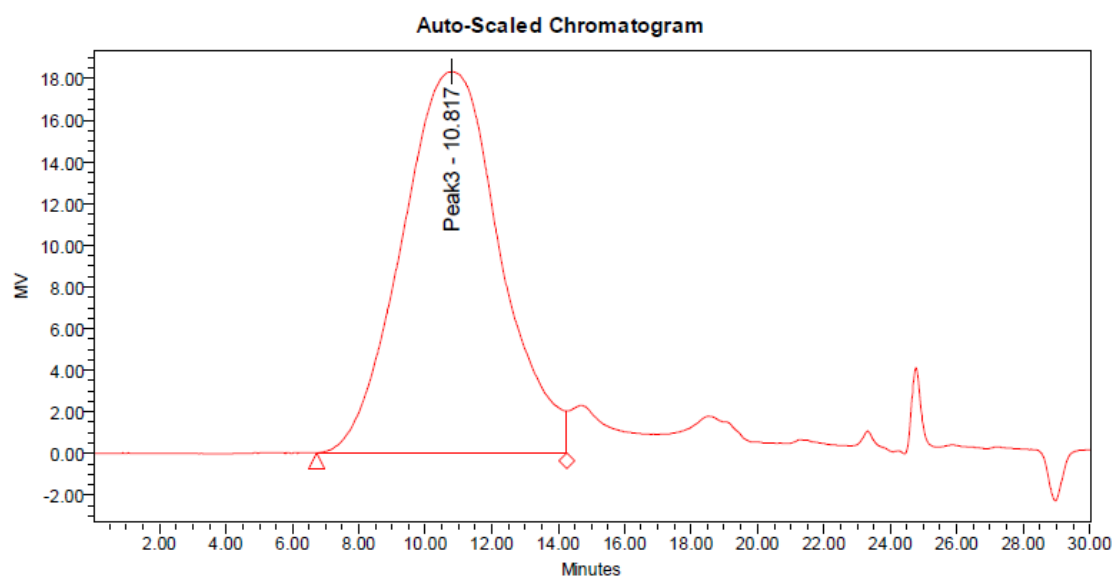


Figure S6. ^1H NMR spectrum of PDTz



Figure S7. ^1H NMR spectrum of PDTTz



GPC Results										
	Dist Name	Mn	Mw	MP	Mz	Mz+1	Mv	Polydispersity	MW Marker 1	MW Marker 2
1		110732	136620		159692	176983		1.233790		
2										

Figure S8. GPC spectrum of PDTz

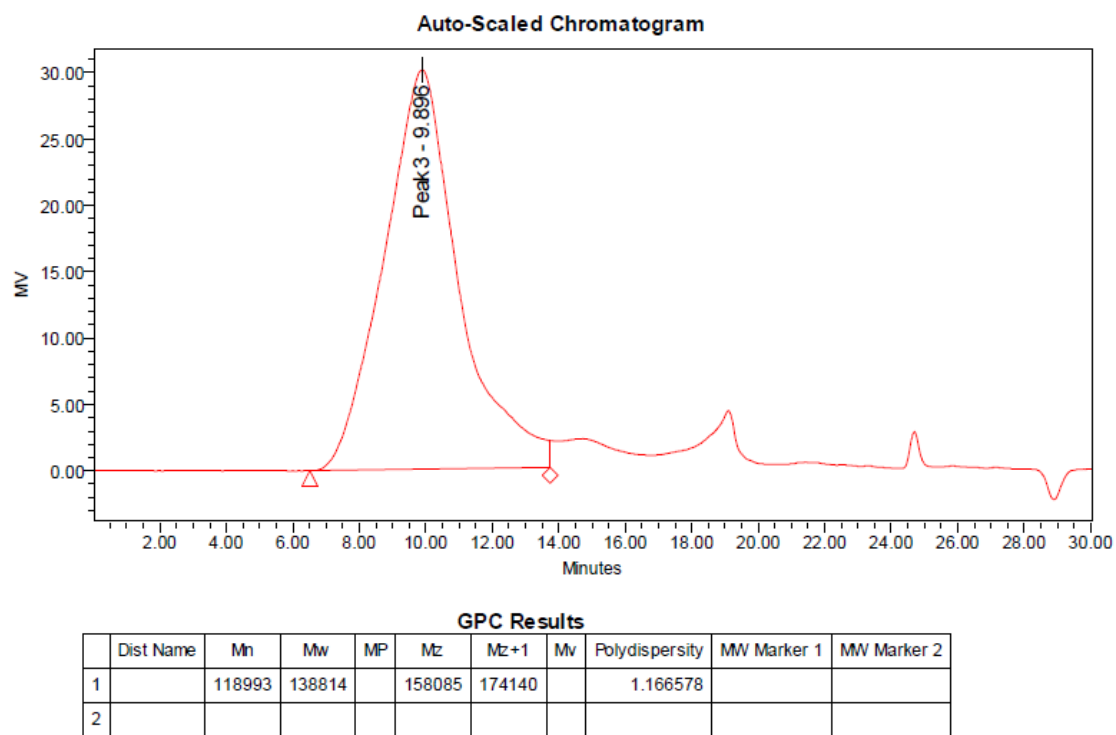


Figure S9. GPC spectrum of PDTTz

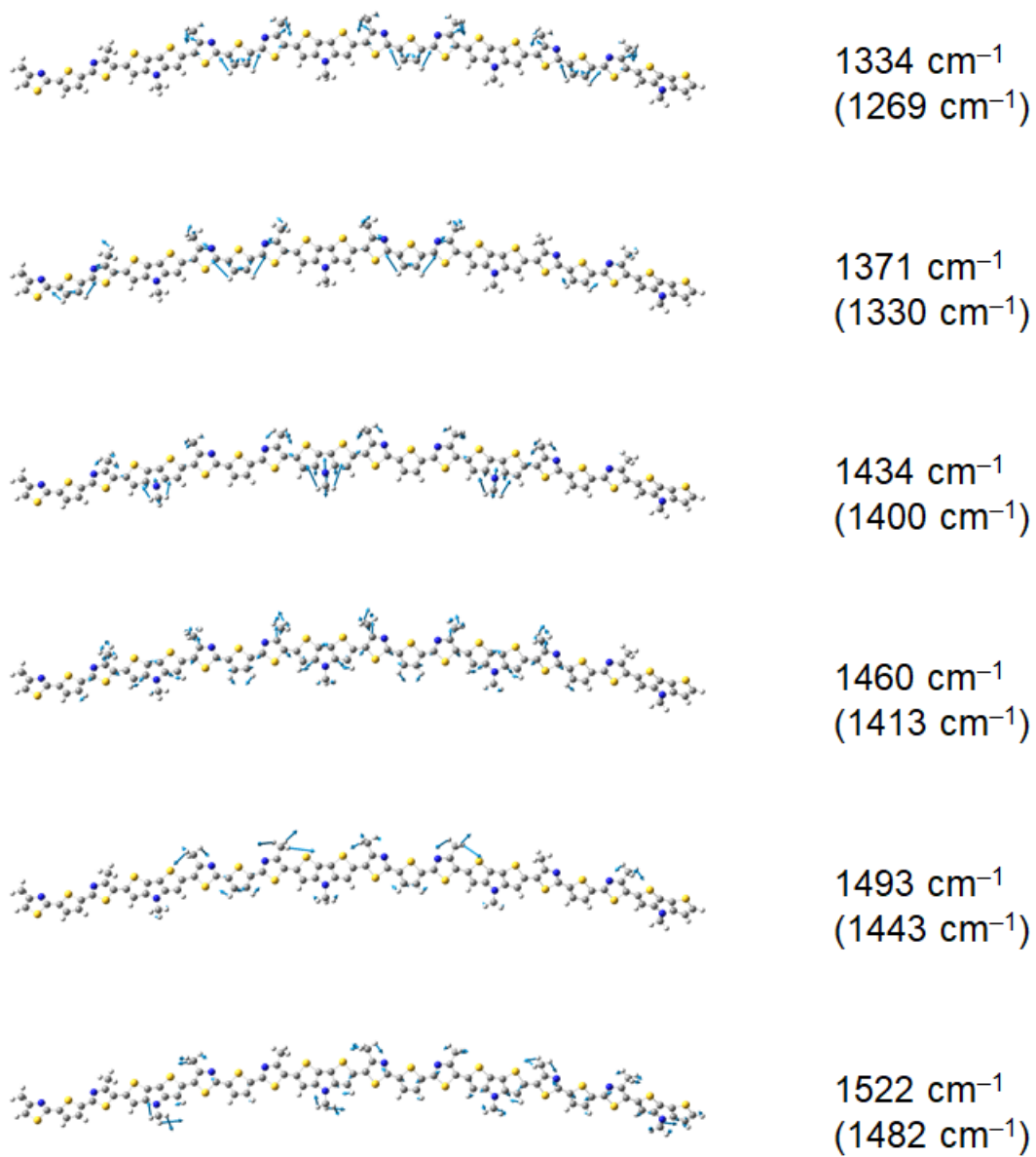


Figure S10. DFT-calculated stretching modes of PDTz tetramer. The wavenumbers in parentheses indicate experimental values.

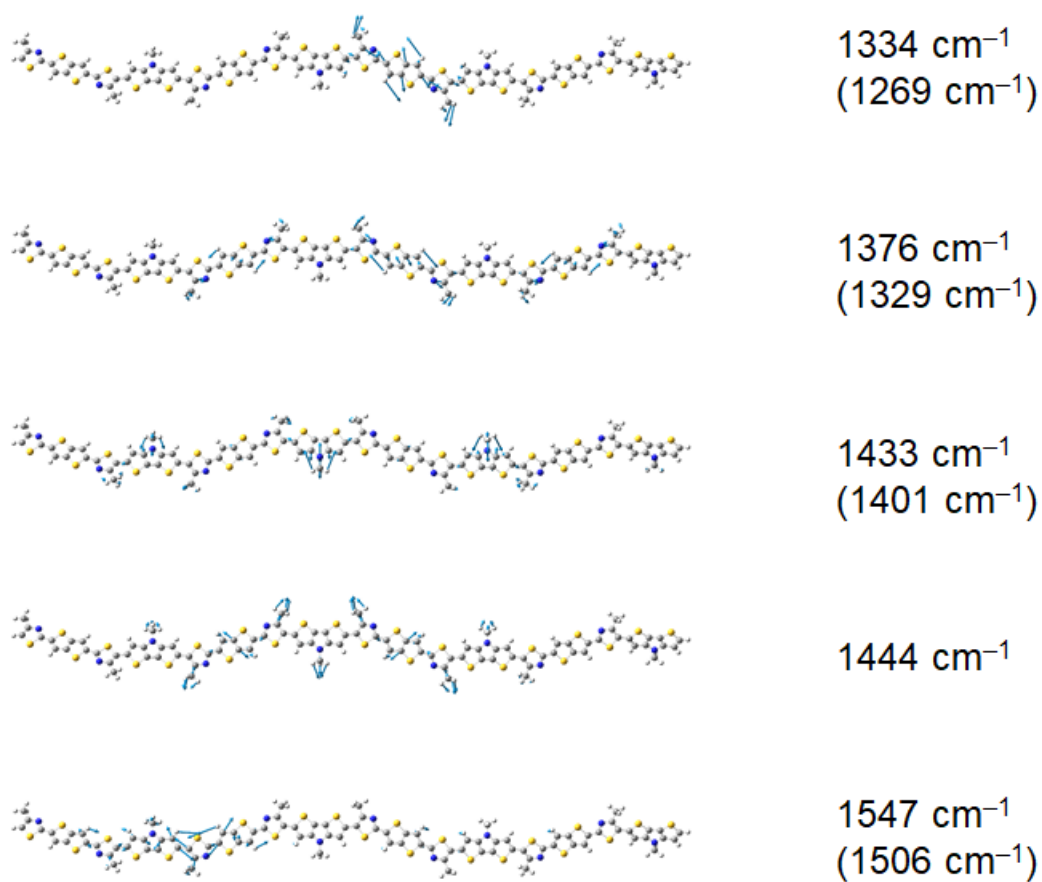


Figure S11. DFT-calculated stretching modes of PDTTz tetramer. The wavenumbers in parentheses indicate experimental values.

Table S1. d-spacing of (100) and (010) peaks of **Figure 5c-f**.

F4TCNQ conc. (mg·mL ⁻¹)	PDTz		PDTTz	
	(100) d-spacing (Å)	(010) d-spacing (Å)	(100) d-spacing (Å)	(010) d-spacing (Å)
0.0	15.14	3.71	14.84	3.69
0.5	16.39	3.65	15.86	3.64
1.0	16.58	3.65	16.05	3.65
1.5	16.55	3.65	16.06	3.63
2.0	16.63	3.65	16.06	3.63