Supplementary Information for

Low band gap polymers for application in solar cells: synthesis and characterization of thienothiophene-thiophene copolymers

P. Morvillo,[*a] R. Diana,[a] C. Fontanesi,[b] R. Ricciardi,[a] M. Lanzi,[c] A. Mucci,*[b] F. Tassinari,[d] L. Schenetti,[d] C. Minarini[a] and F. Parenti*[b]

[a] ENEA, UTTP-NANO, Piazzale E. Fermi 1, 80055 Portici, Italy

[b] Università di Modena e Reggio Emilia, Dipartimento di Scienze Chimiche e Geologiche, Via G. Campi 183, 41125 Modena, Italy.

[3] Università di Bologna, Dipartimento di Chimica Industriale e dei Materiali, V.le del Risorgimento 4, 40136 Bologna, Italy.

[d] Università di Modena e Reggio Emilia, Dipartimento di Scienze della Vita, Via G. Campi 183, 41125 Modena, Italy

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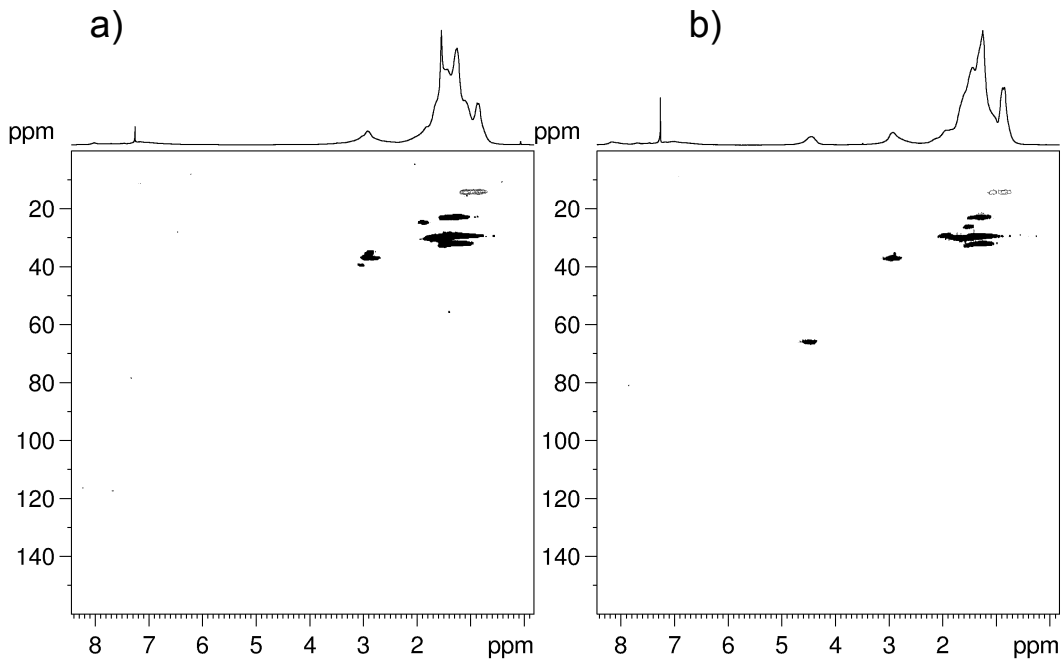

Figure S1. HSQC spectrum of a) **PK** and b) **PE**.

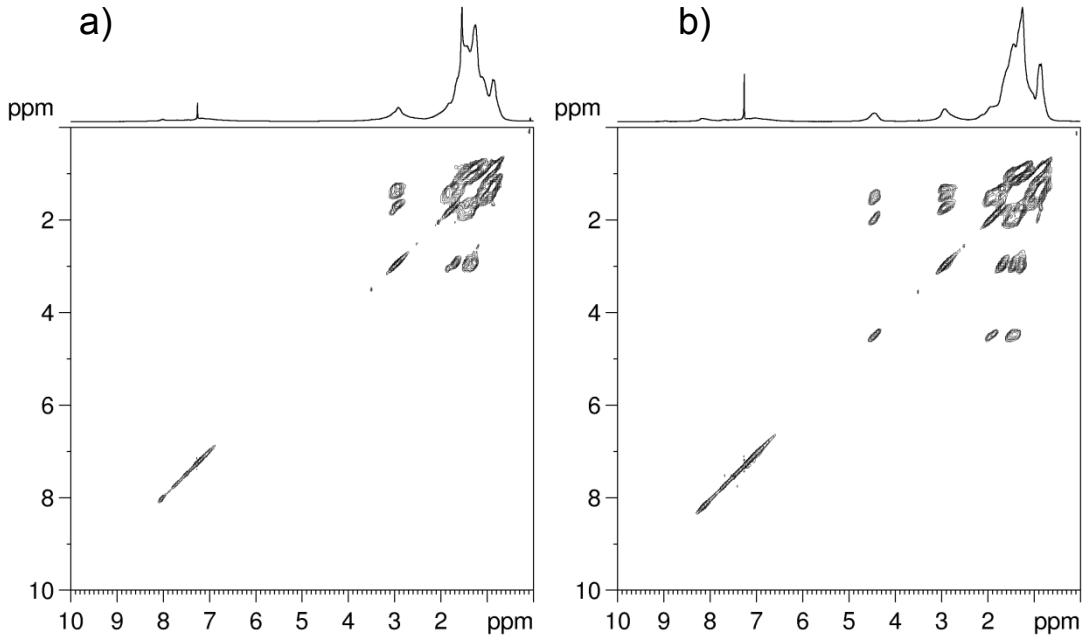

Figure S2. TOCSY spectrum of a) **PK** and b) **PE**.

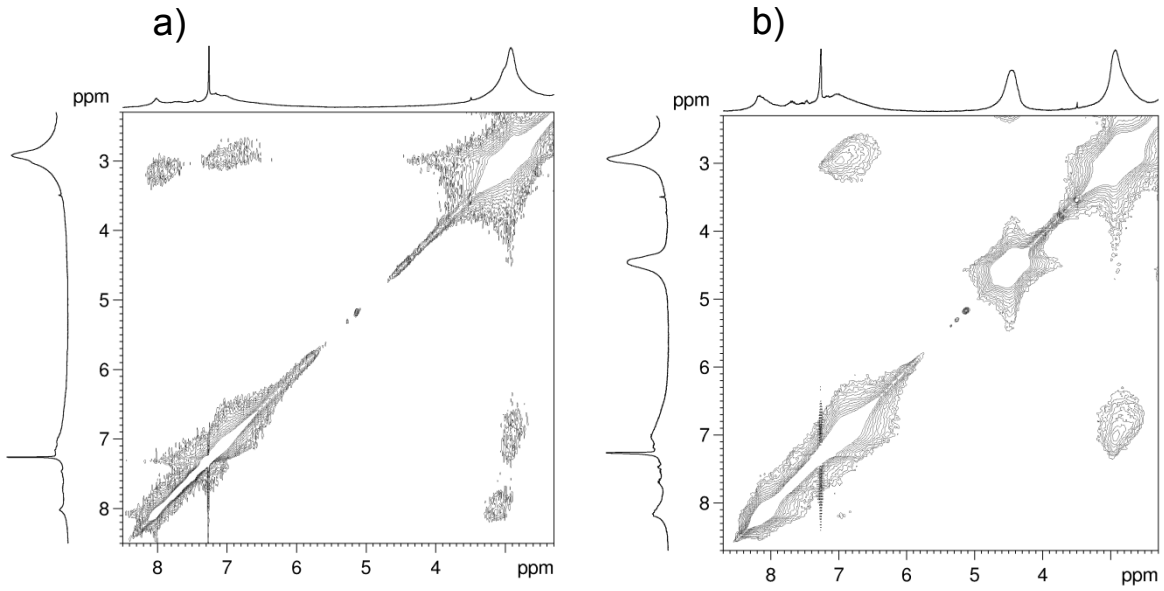

Figure S3. Partial NOESY spectra of a) **PK** and b) **PE**.

Table S1. ^{1}H and ^{13}C assignments of **PK** and **PE** NMR signals.

PK		1-CH_2	2-CH_2	3-CH_2	4-CH_2, 5-CH_2, 6-CH_2, 7-CH_2				CH_3
C=OR	^{1}H	3.02	1.84	1.46	1.35	1.31	1.31	1.31	0.88
	^{13}C	39.5	24.6	29.3	29.3	29.3	31.9	23.0	14.2
SR	^{1}H	2.92	1.66	1.43	1.27	1.27	1.27	1.27	0.84
	^{13}C	36.8	29.8	29.2	29.3	29.3	31.9	23.0	14.2
PE									
C=OOR	^{1}H	4.46	1.95	1.51	1.37	1.32	1.30	1.30	0.89
	^{13}C	66.0	29.0	26.0	29.4	29.4	31.8	22.7	14.2
SR	^{1}H	2.93	1.70	1.45	1.27	1.27	1.27	1.27	0.85
	^{13}C	37.0	29.9	29.3	29.4	29.4	31.8	22.7	14.2

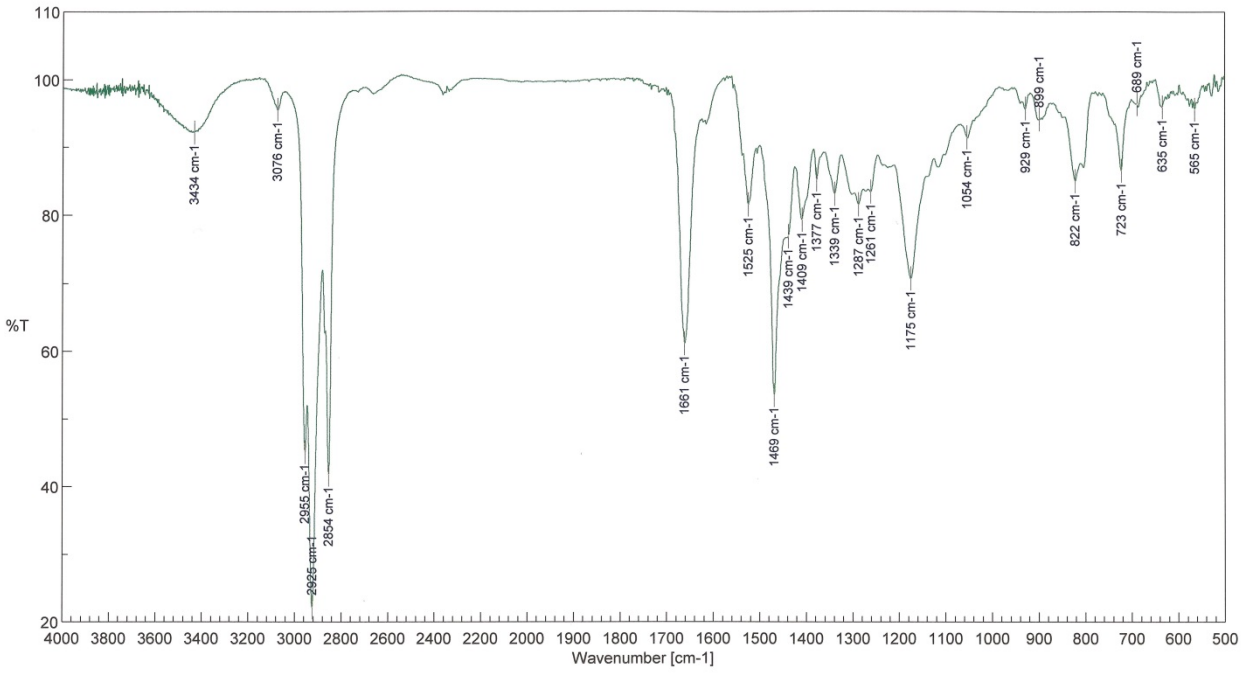

Figure S4. FT-IR spectrum of **PK**.

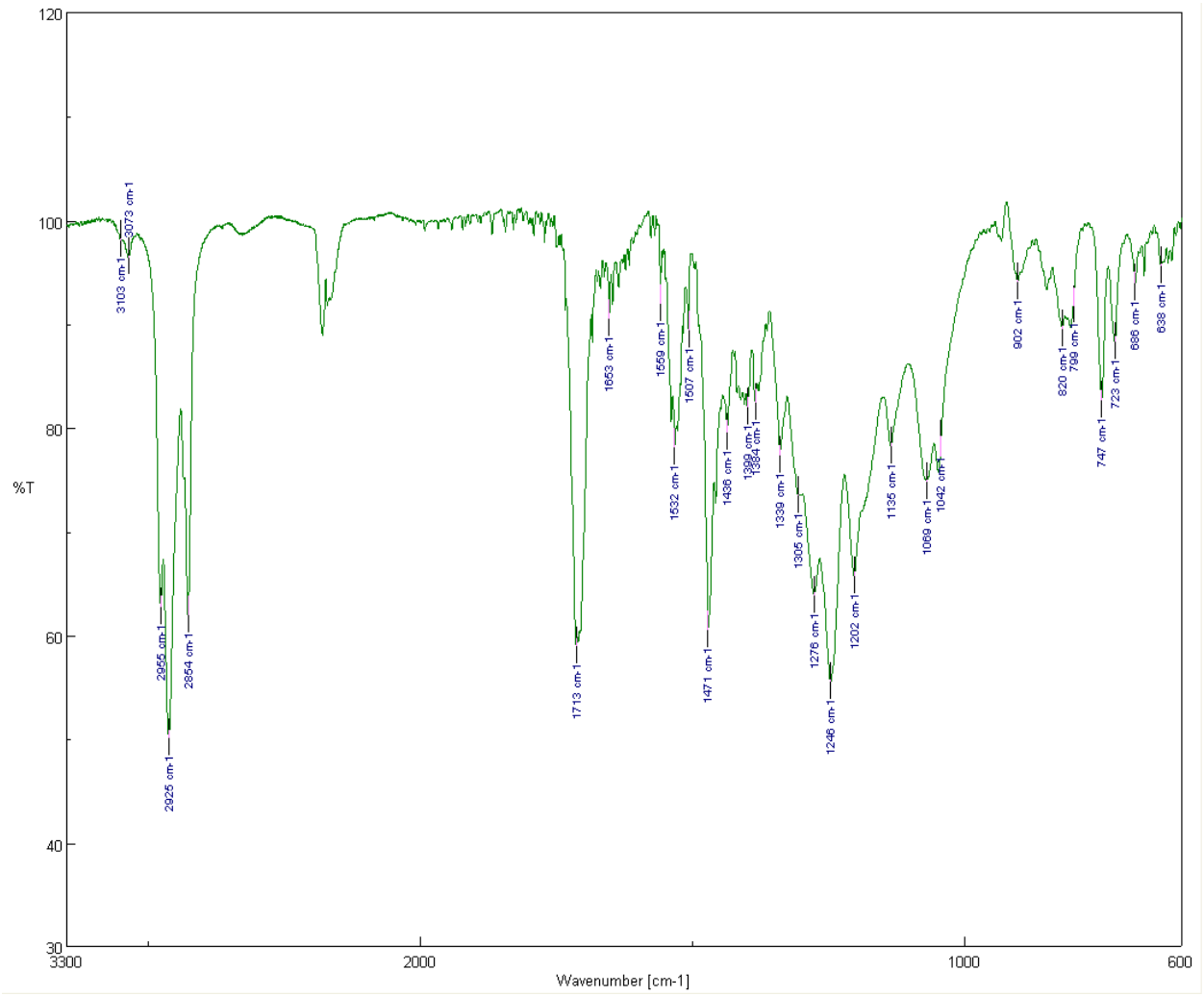

Figure S5 FT-IR spectrum of **PE**.