Supporting information

The Influence of Central Acceptor Unit on the Optoelectronic Properties and Photovoltaic Performance of A-D-A-D-A-Type Oligomers

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Figure S1. J-V-curves of co-oligomer 3-based solar cells after SVA with chloroform.

SVA	J _{SC} [mA/cm ²]	<i>V</i> _{OC} [V]	FF	РСЕ
8				[%]
0	4.60	0.73	0.52	1.75
15	7.46	0.72	0.50	2.70
30	10.11	0.72	0.60	4.42
45	9.17	0.70	0.66	4.28
60	6.93	0.73	0.60	3.04
75	9.20	0.72	0.65	4.28
90	6.81	0.73	0.58	2.89
105	7.36	0.72	0.64	3.38
120	7.59	0.71	0.59	3.17

Tab. S1. PV data of co-oligomer 3-based solar cells after solvent vapor annealing with chloroform (CF).



Figure S2. J-V-curves of co-oligomer 3-based devices after SVA with THF.

SVA [s]	$J_{\rm SC}$ [mA/cm ²]	<i>V</i> _{OC} [V]	FF	PCE [%]
0	4.60	0.73	0.52	1.75
15	8.03	0.72	0.44	2.54
30	5.78	0.72	0.38	1.60
45	11.50	0.70	0.63	5.03
60	10.35	0.70	0.54	3.93
75	8.95	0.71	0.60	3.81
90	8.37	0.72	0.51	3.11
105	7.20	0.72	0.41	2.12
120	6.46	0.72	0.42	1.97

Tab. S2. PV data of co-oligomer 3-based solar cells after solvent vapor annealing with THF.



Figure S3. Solid-state absorption spectra of blends containing $PC_{61}BM$ and co-oligomers 1, 2, and 4 after SVA with THF.



Fig S3: GIXRD plots of co-oligomers 1,2, and 4 :PC₆₁BM active layer before and after SVA.