Supplemental Information

About the Role of Transesterifications in Reversible Polycondensations and a Re-investigation of the Jacobson-Beckmann-Stockmayer Experiments

Hans R. Kricheldorf^a), Steffen M. Weidner^{b)} and Jana Falkenhagen^{b)}

- a) Universität Hamburg, Institut für Technische and Makromolekulare Chemie, Bundesstr. 45, D-20145 Hamburg
- b) Bundesanstalt f
 ür Materialforschung und -pr
 üfung, BAM 6.3, Richard Willst
 ätter Str. 11, D-12489 Berlin



Figure S1 MALDI TOF mass spectrum of a telechelic PDA prepared with the double amount of TSA-H₂O (JBS-3, Table 1)



Figure S2 GPC elution curves of telechelic PDA samples listed in Table 1



Figure S3 MALDI TOF mass spectrum of a PDA prepared from equimolar amounts of 1,10decane diol and adipoyl chloride (cPDA, Table 1).



Figure S4 MALDI TOF mass spectra of telechelic PDA5 equilibrated in chlorobenzene at 130°C (Table 3): (A) 1M solution after 2.5 h, (B) 0.2 M solution after 50h.



Figure S5: MALDI TOF of mass spectra of end-capped PCL used as starting materials for transesterification experiments with DESu



Figure S6: MALDI TOF mass spectra of the transesterification products obtained from the mixture of AcPDLUn-2 with DESu at 109°C (Table 5): (A) after 1h, (B) after 2h.

Exp. No.	Conc.	Temp. (°C)	Time (h)	Mn	Mw
0	4.0	-	-	31 000	74 000
1A	1.0	130	2.5	20 500	37 000
1B	1.0	130	25	17 800	33 200
2A	1.0	109	2.5	22 500	40 000
2B	1.0	109	25	20 000	38 000
2B	1.0	109	50	16 500	35 500

Table S1Equilibration of CPDA (DA/Cat = 50/1)