

## Supplementary data

### Synthesis and characterization of $\alpha,\omega$ -dihydroxy-telechelic oligo(*p*-dioxanone)

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Table S1. Mass units of PPDO-diols synthesized with or without catalyst determined by MALDI-TOF MS analysis compared to calculated values of linear and cyclic structures.  $M_{pDO}$ : molar mass of *p*-dioxanone;  $M_{EG}$ : molar mass of ethylene glycol;  $M_K$ : molar mass of  $K^+$ ;  $M_{water}$ : molar mass of  $H_2O$ ;  $M_{Trifl}$ : molar mass of  $CF_3CO-$ .

structure	m/z+	m/z+	m/z+
	calculated	no catalyst found	with catalyst found
linear macrodiol ( $10 \cdot M_{pDO} + M_{EG} + M_K$ )	1121.3	1121.3	1121.2
macrocycle ( $\{10+1\} \cdot M_{pDO} + M_K$ )	1161.3	-	1161.3
linear macromonool ( $\{10+1\} \cdot M_{pDO} + M_{water} + M_K$ )	1179.3	1179.3	1179.2
trifluoroacetat linear macrodiol ( $\{10\} \cdot M_{pDO} + M_{EG} + M_K + M_{Trifl} - 1$ )	1217.2	1217.2	1217.2
linear macrodiol ( $\{10+1\} \cdot M_{pDO} + M_{EG} + M_K$ )	1223.3	1223.3	1223.3
linear macrodiol ( $12 \cdot M_{pDO} + M_{EG} + M_K$ )	1325.4	1325.3	1325.3
macrocycle ( $\{12+1\} \cdot M_{pDO} + M_K$ )	1365.3	-	1365.3
linear macromonool ( $\{12+1\} \cdot M_{pDO} + M_{water} + M_K$ )	1383.4	1383.3	1383.2
trifluoroacetat linear macrodiol ( $\{12\} \cdot M_{pDO} + M_{EG} + M_K + M_{Trifl} - 1$ )	1421.4	1421.2	1421.2
linear macrodiol ( $\{12+1\} \cdot M_{pDO} + M_{EG} + M_K$ )	1427.4	1427.3	1427.3