Electronic Supplementary Material (ESI) for Green Chemistry.

Greener preparation of a flexible material based on macaw palm oil derivatives and CO2

Supplementary Information

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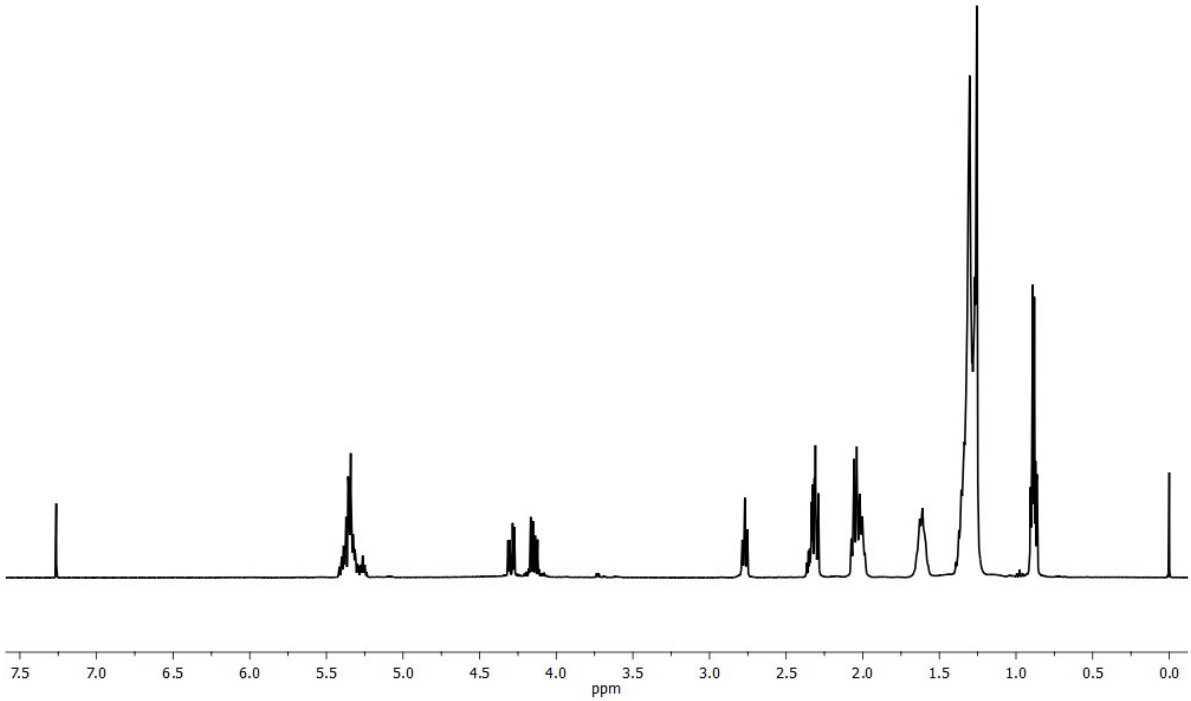

Figure S1. ^{1}H-NMR for MPO

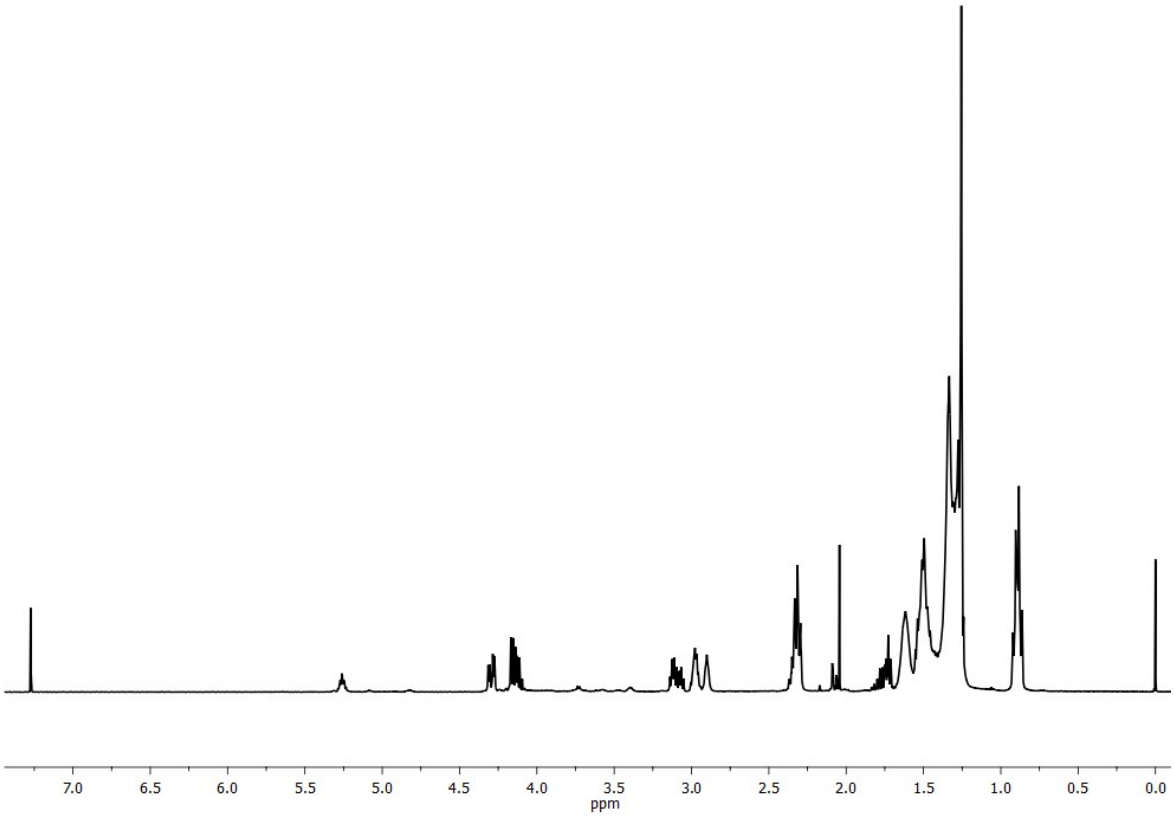

Figure S2. ^{1}H-NMR for EMPO

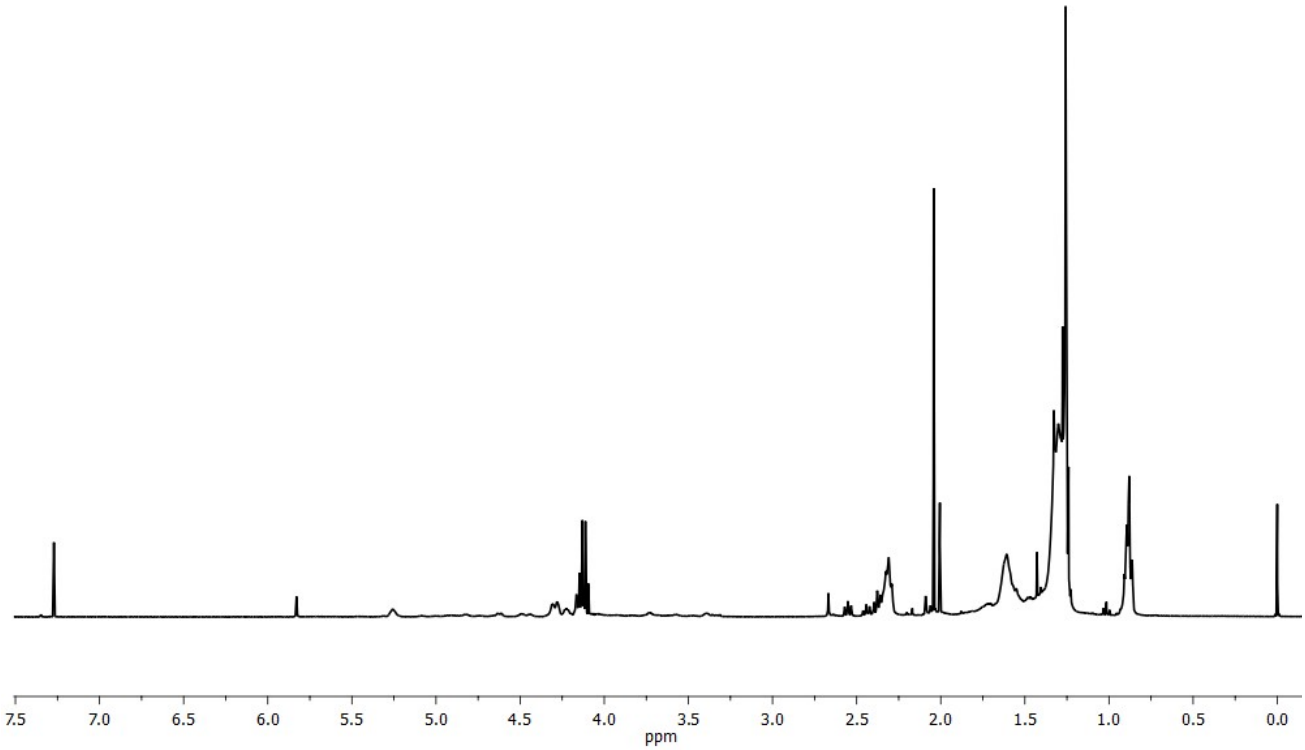

Figure S3. ^{1}H-NMR for CMPO

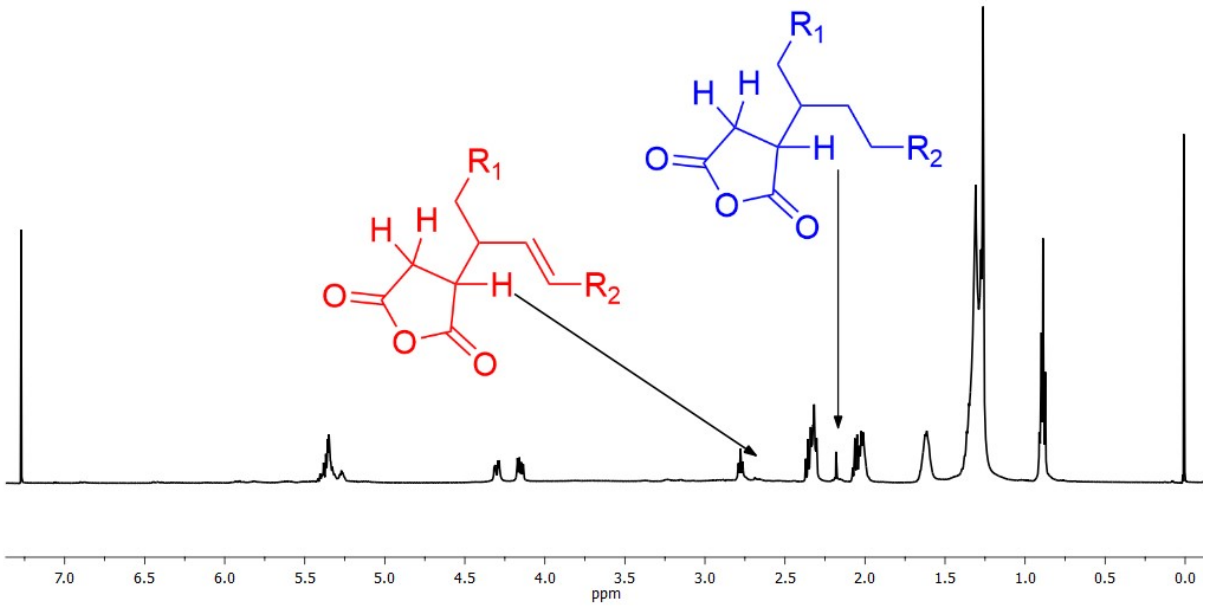

Figure S4. ^{1}H-NMR for MMPO

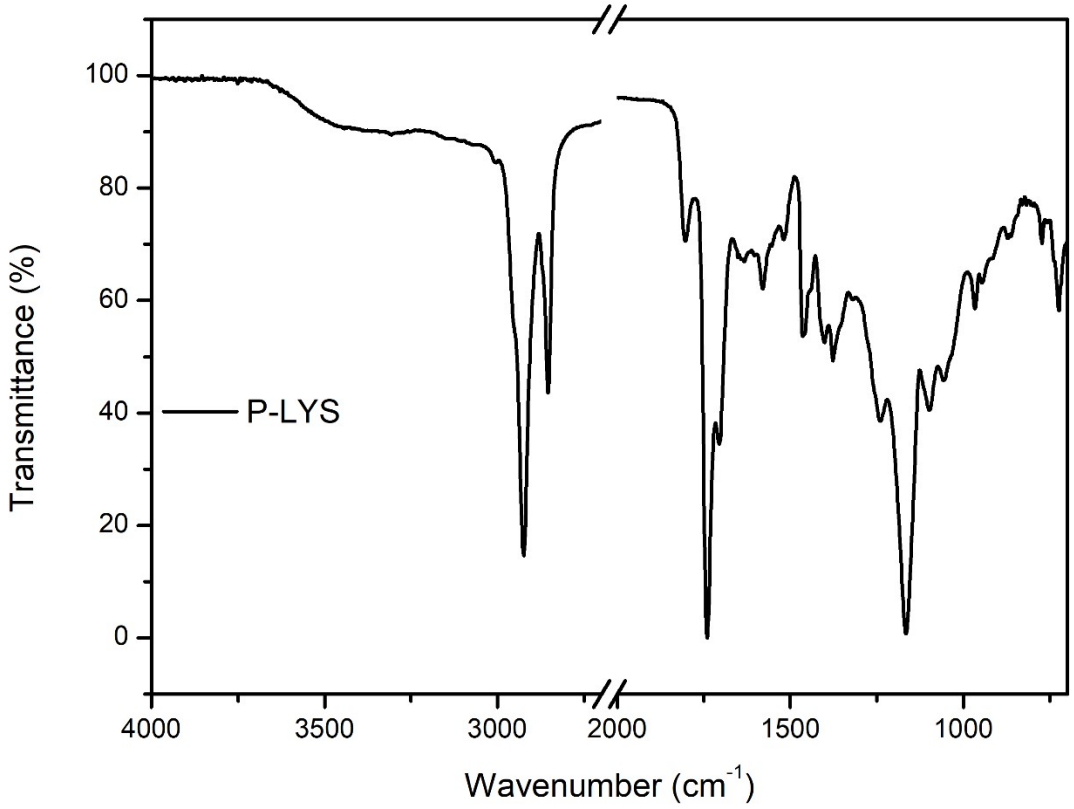

Figure S5. MIR spectrum for P-LYS

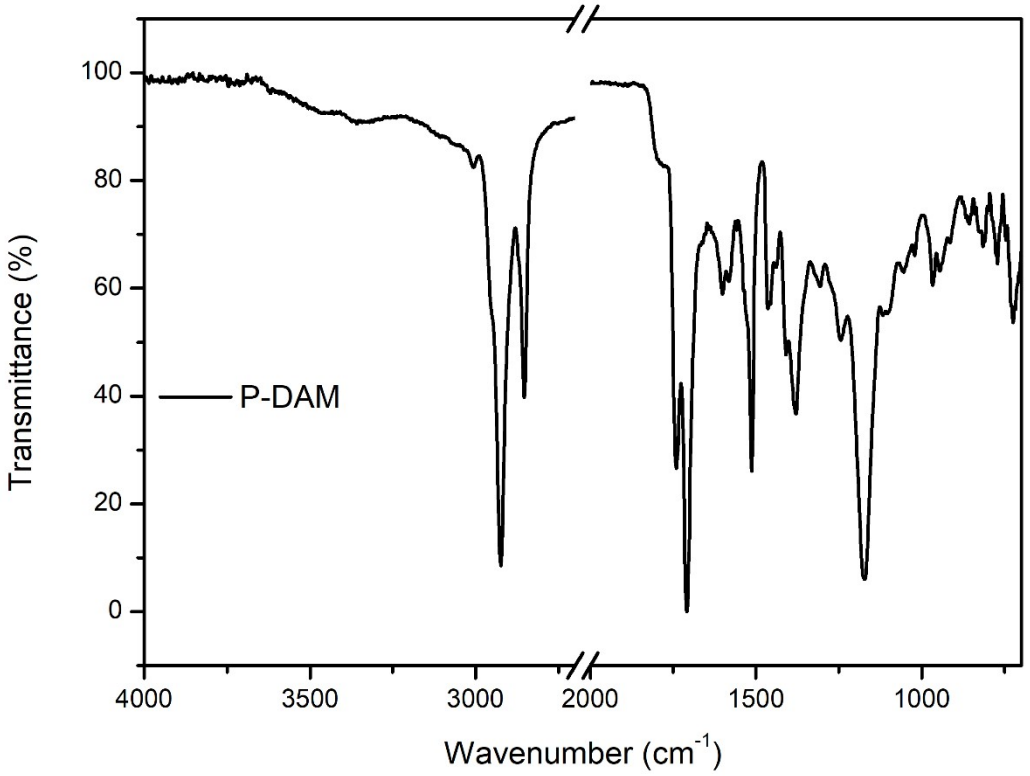

Figure S6. MIR spectrum for P-DAM

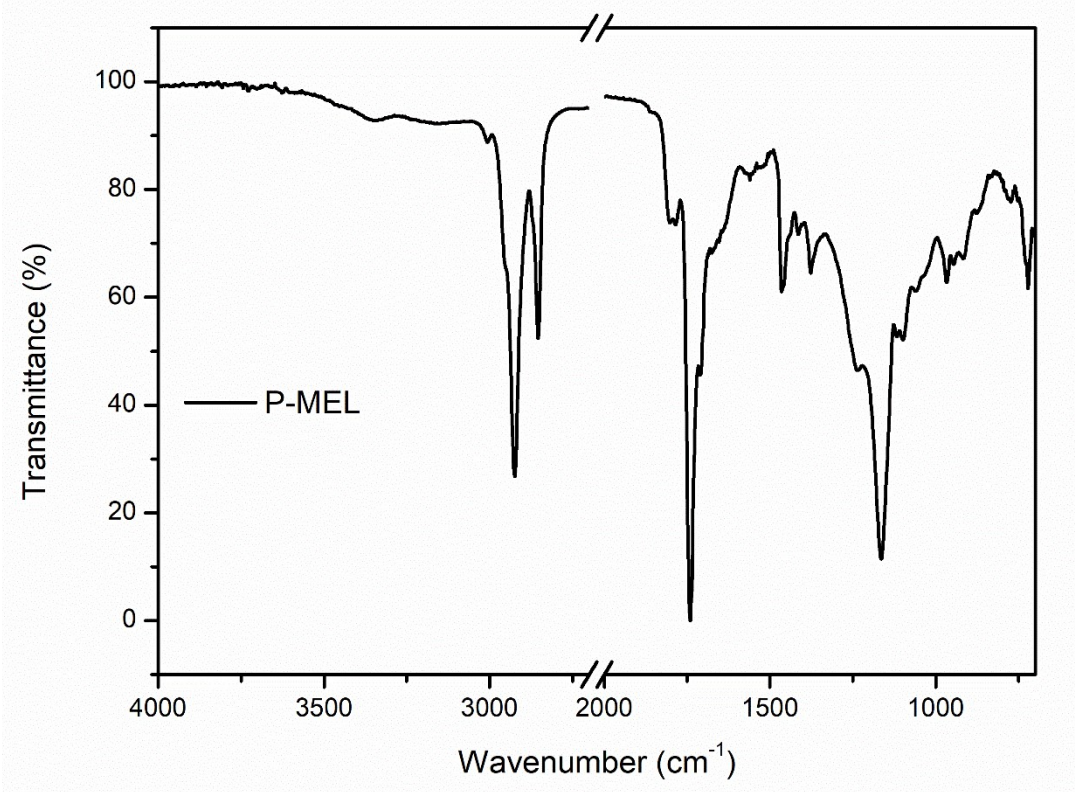

Figure S7. MIR spectrum for P-MEL

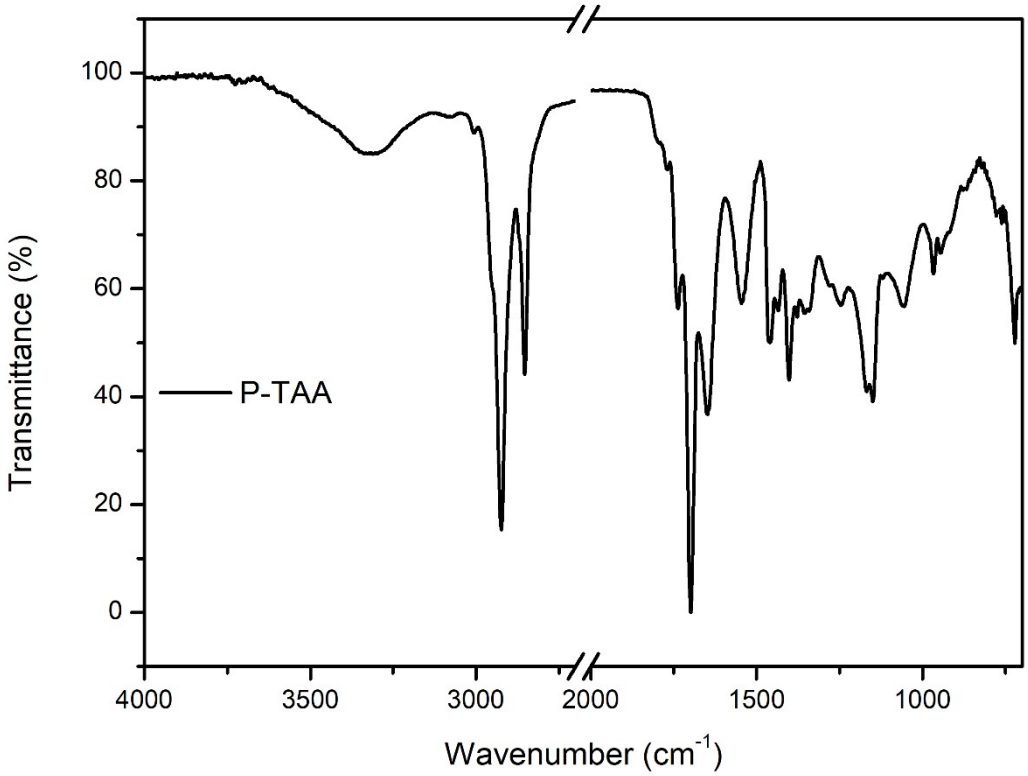

Figure S8. MIR spectrum for P-TAA

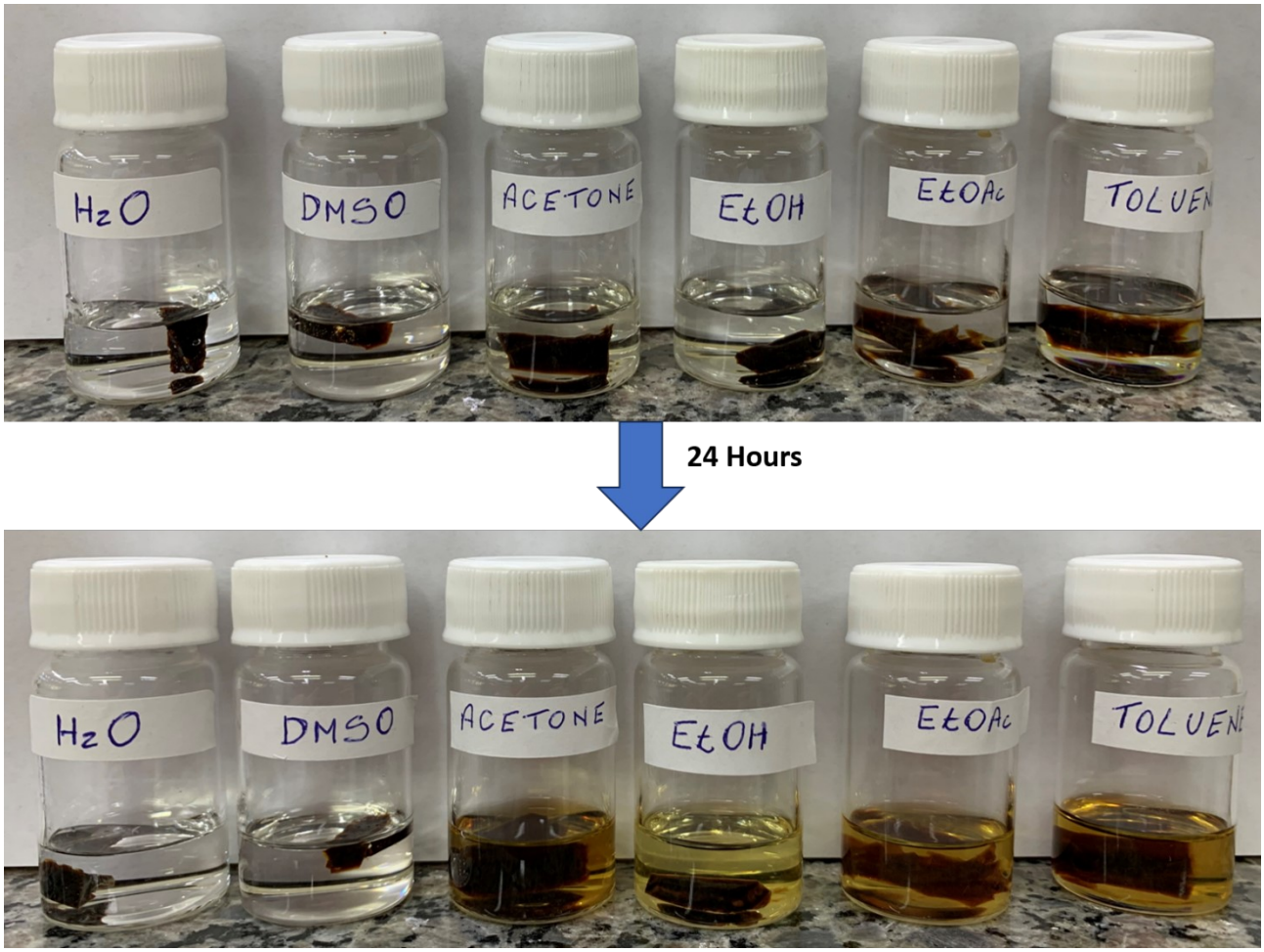

Figure S9. P-HDA in different solvents (water, dimethylsulfoxide, acetone, ethanol, ethyl acetate and toluene).

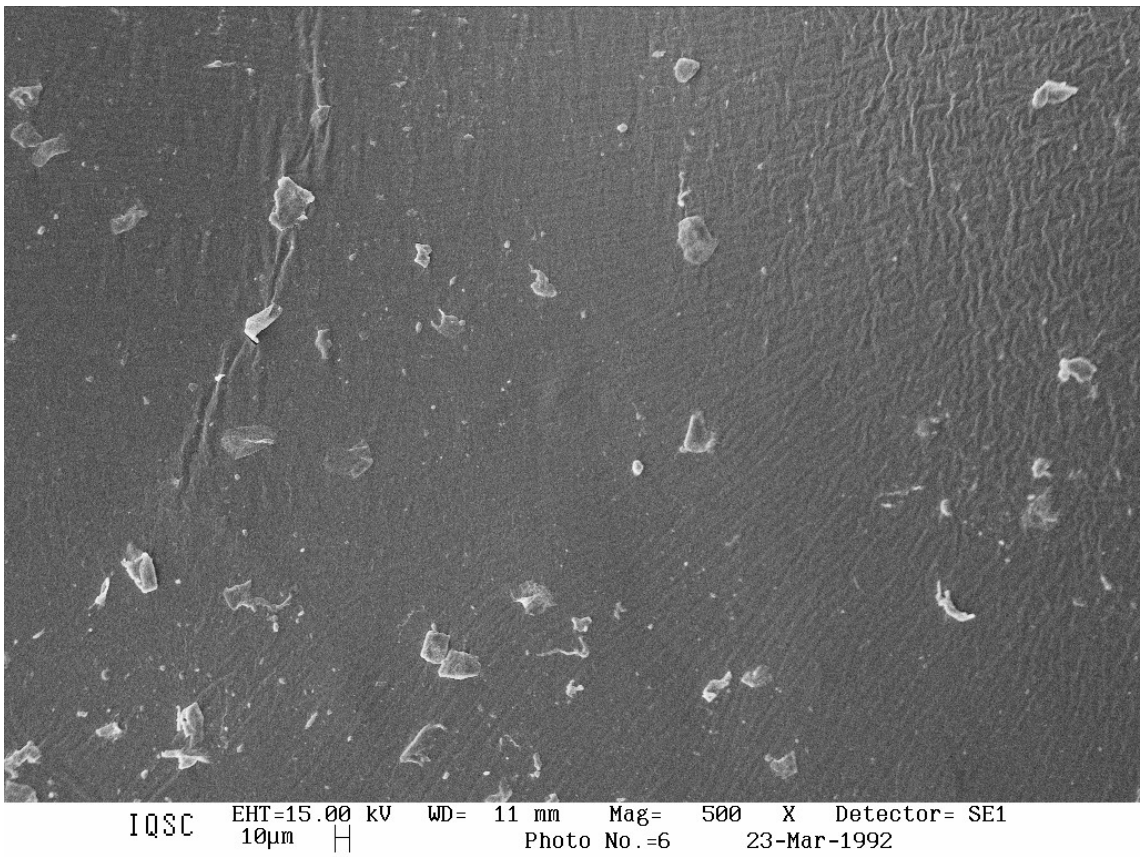

Figure S10. SEM micrograph for P-DAM.

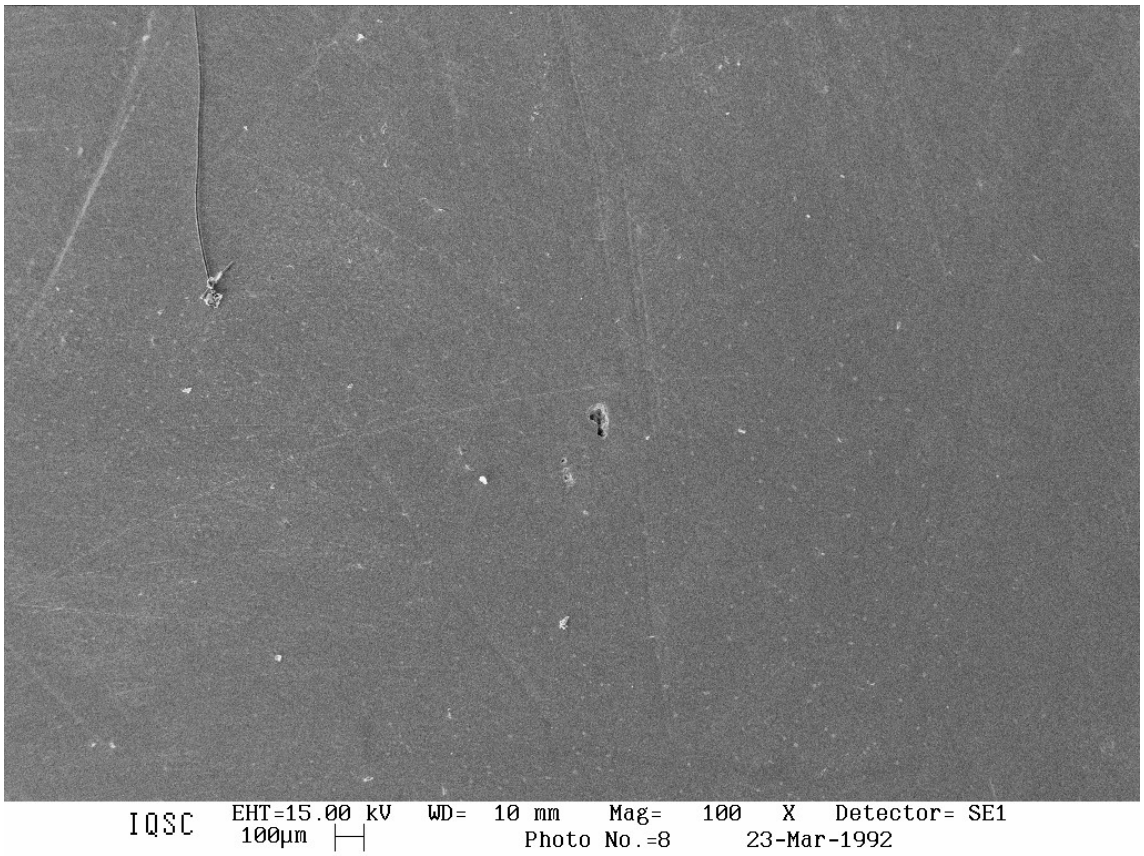

Figure S11. SEM micrograph for P-MEL.

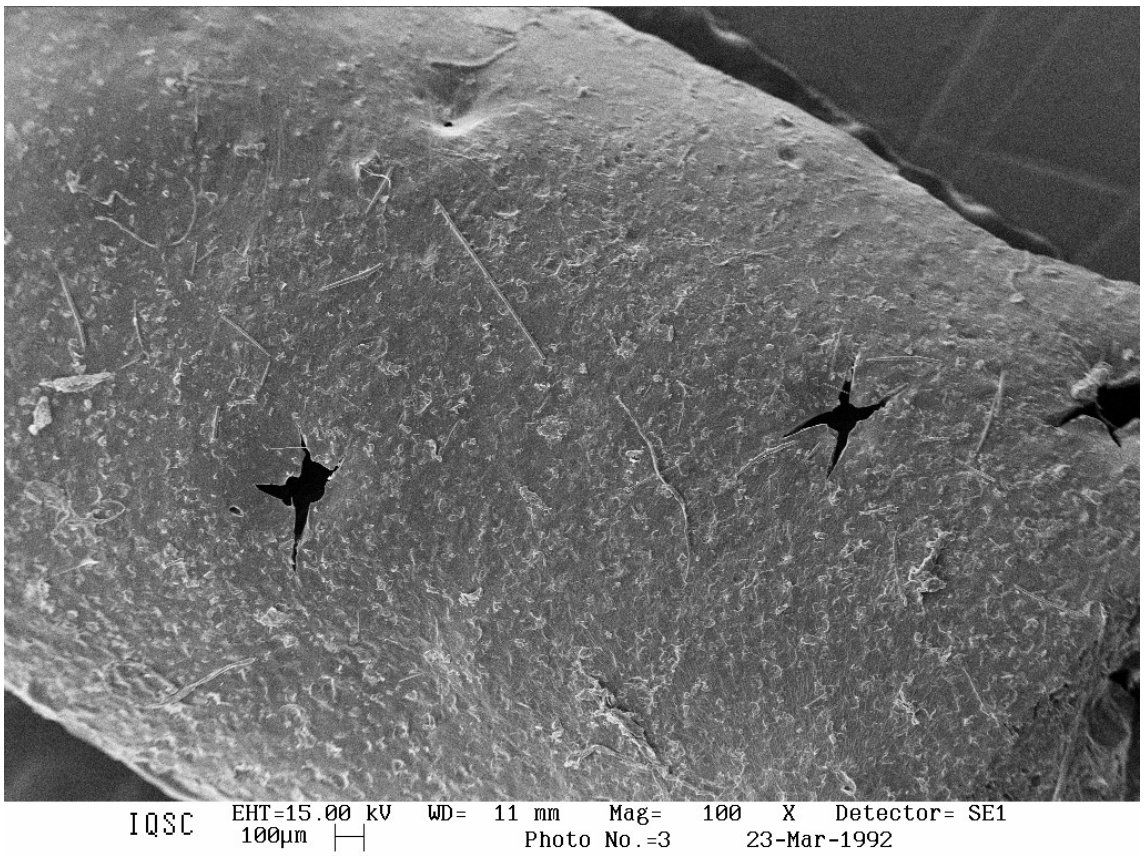

Figure S12. SEM micrograph for P-LYS.

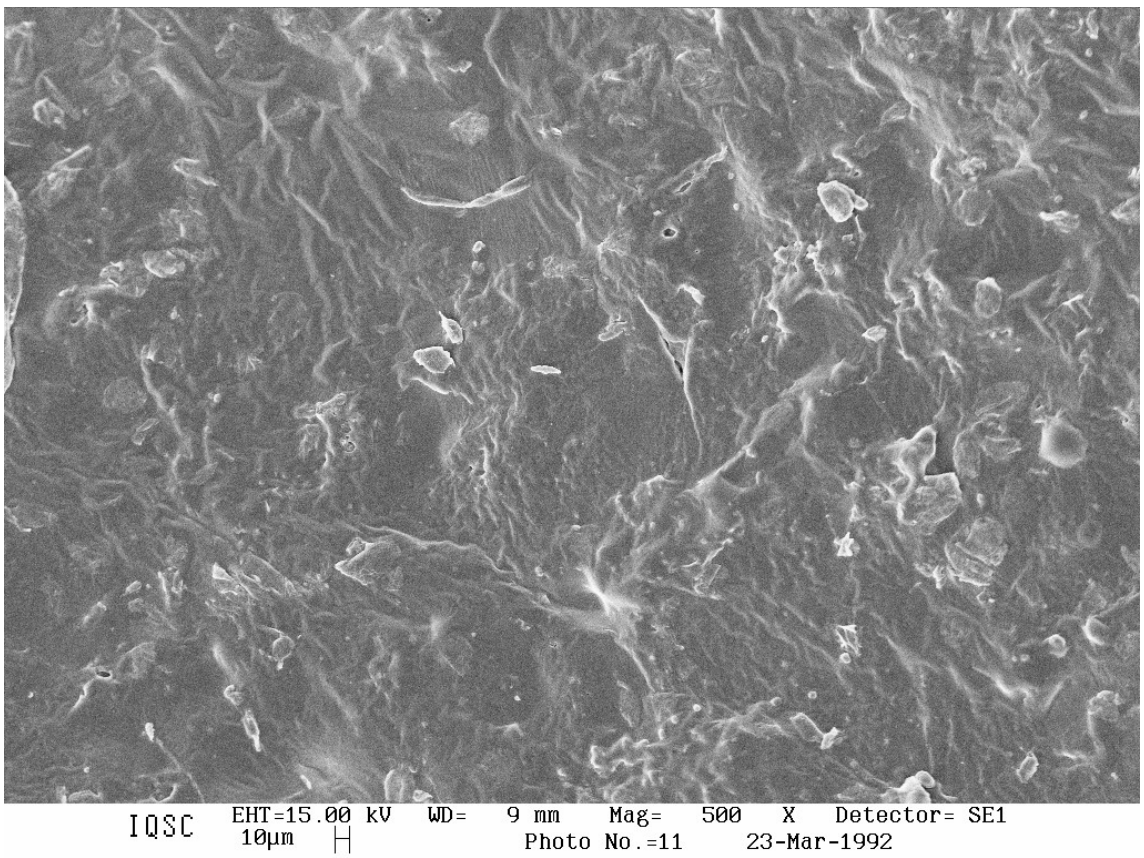

Figure S13. SEM micrograph for P-TAA.

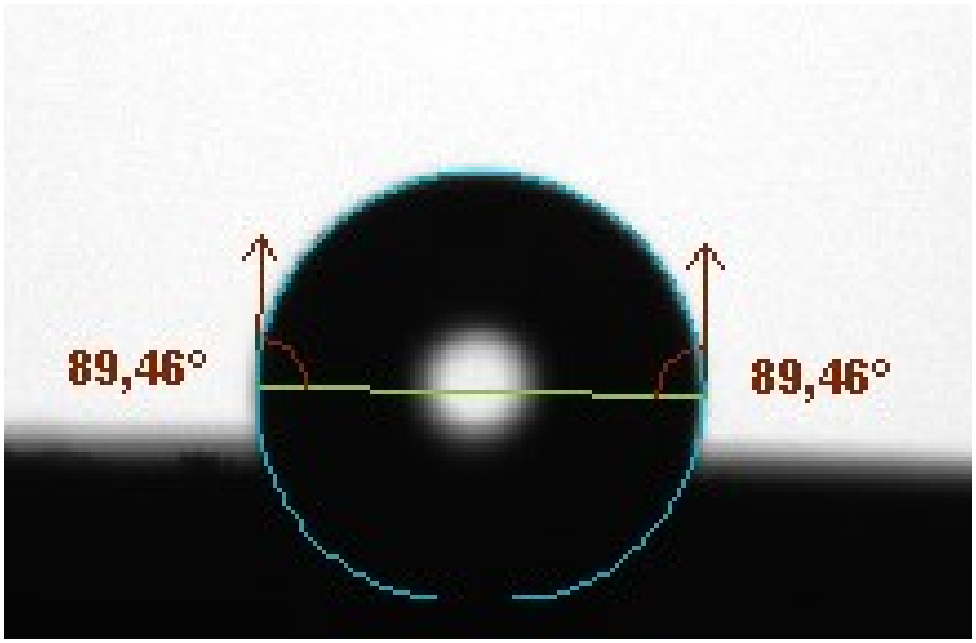

Figure S14. Contact angle measurement of P-DAM using a drop of water.

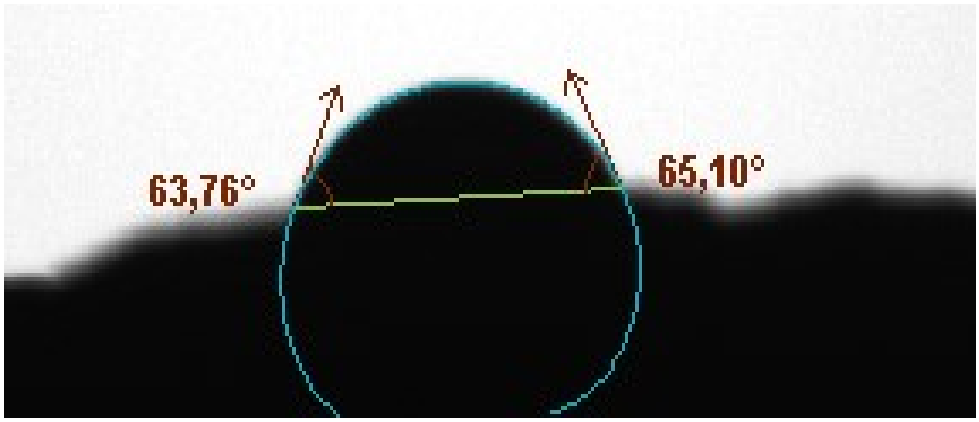

Figure S15. Contact angle measurement of P-MEL using a drop of water.

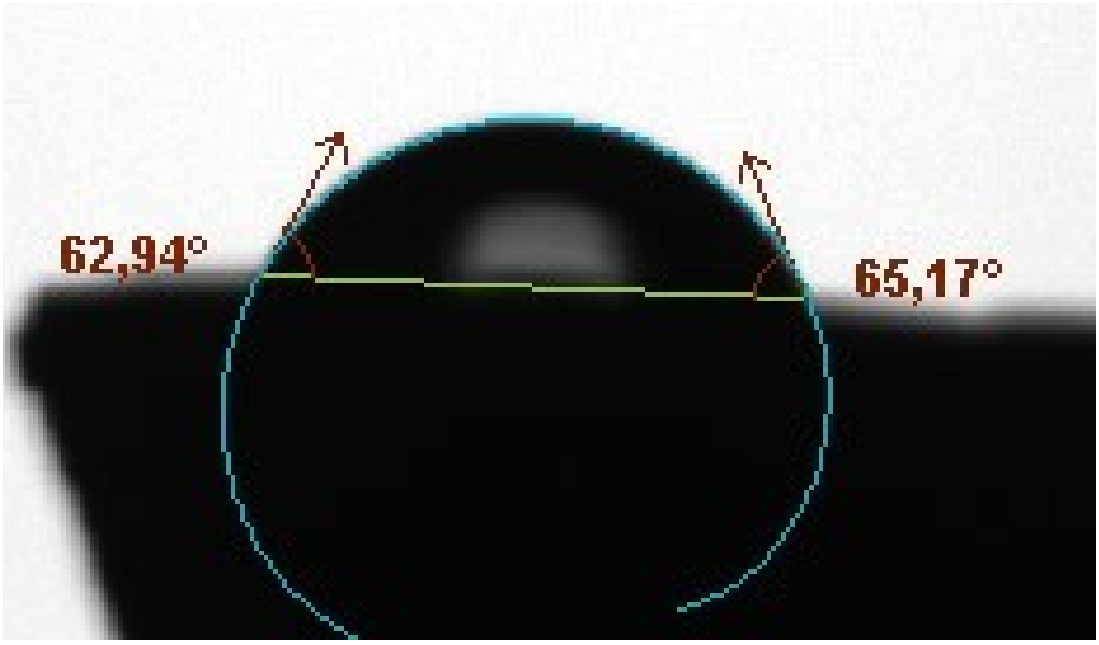

Figure S16.Contact angle measurement of P-TAA using a drop of water.

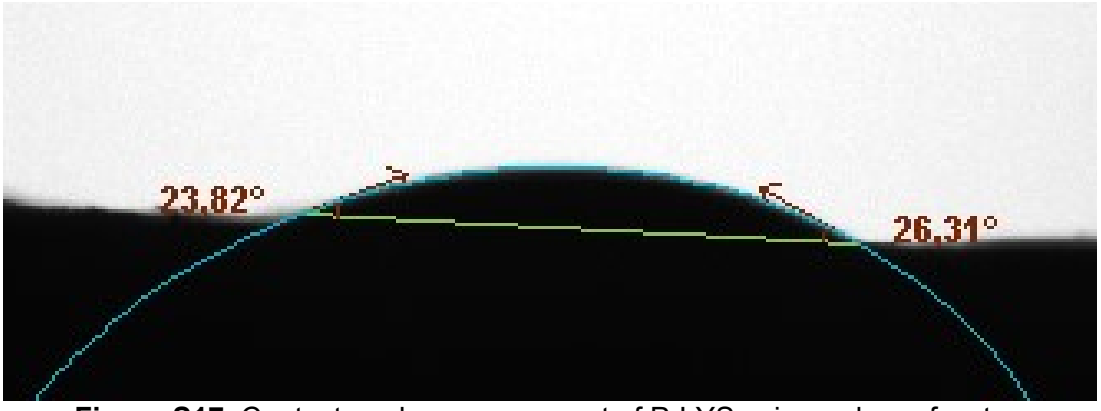

Figure S17. Contact angle measurement of P-LYS using a drop of water.

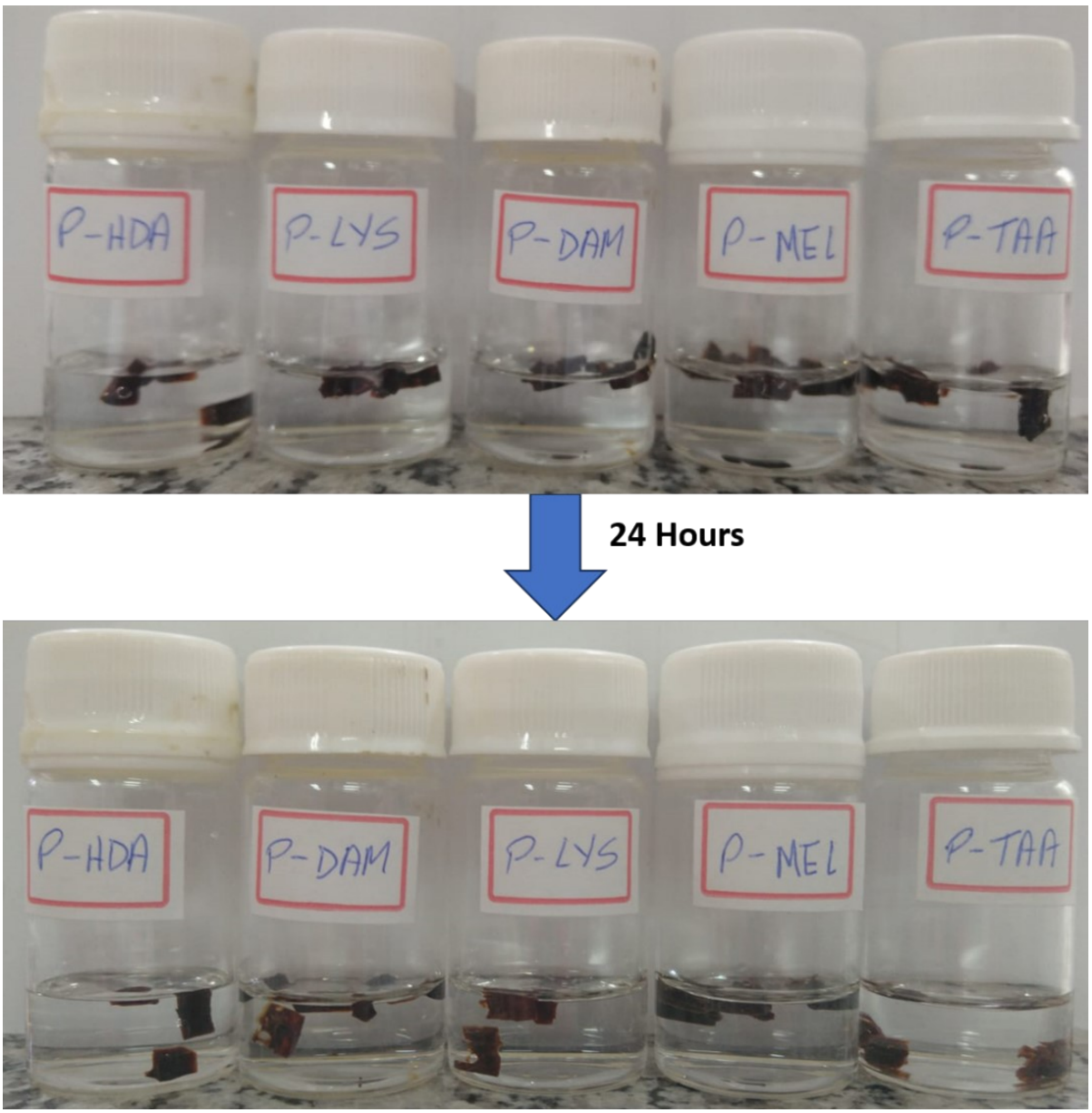

Figure S18. Hydrolysis test of polymers in HCl solution (1 mol L^{-1}).

Table S1. Summary of polymers' mass loss events (∆m/%), the temperature range in which each event occurred (θ °C), and the temperature peak (T_P/°C) are also given.

		1st decomposition step	2nd decomposition step	3rd decomposition step
P-HDA	θ °C	210.2-365.7	365.7-487.8	487.8-633.0
	loss/%	18.69	58.53	22.78
	T_p/°C	350.8↑	383.2↑; 412.8↑; 431.3-475.7*	511.8↑
P-LYS	θ °C	155.1-368.6	368.6-485.3	485.3-626.5
	loss/%	25.24	54.37	20.39
	T_p /°C	351.7↑	403.5↑; 444.0↑	525.8↑
P-DAM	θ °C	194.5-365.4	365.4-492.0	492.0-652.8
	loss/%	14.81	50.86	34.33
	T_p /°C	349.7↑	414.5↑	549.8↑
P-MEL	θ °C	159.8-346.3	-486.7	486.7-638.1
	loss/%	23.60	58.18	18.22
	T_p /°C	337.8↑	401.9↑	520.4↑
P-TAA	θ °C	200.0-346.3	346.3-475.7	475.7-650.8
	loss/%	13.53	61.16	25.37
	T_p /°C	336.9↑	407.7↑; 439.4↑; 453.4↑	486.9↑

↑=Exothermic peak; *= exotherm