

Supplementary Information File for the article:

Toward chemical recycling of PU foams: purification options

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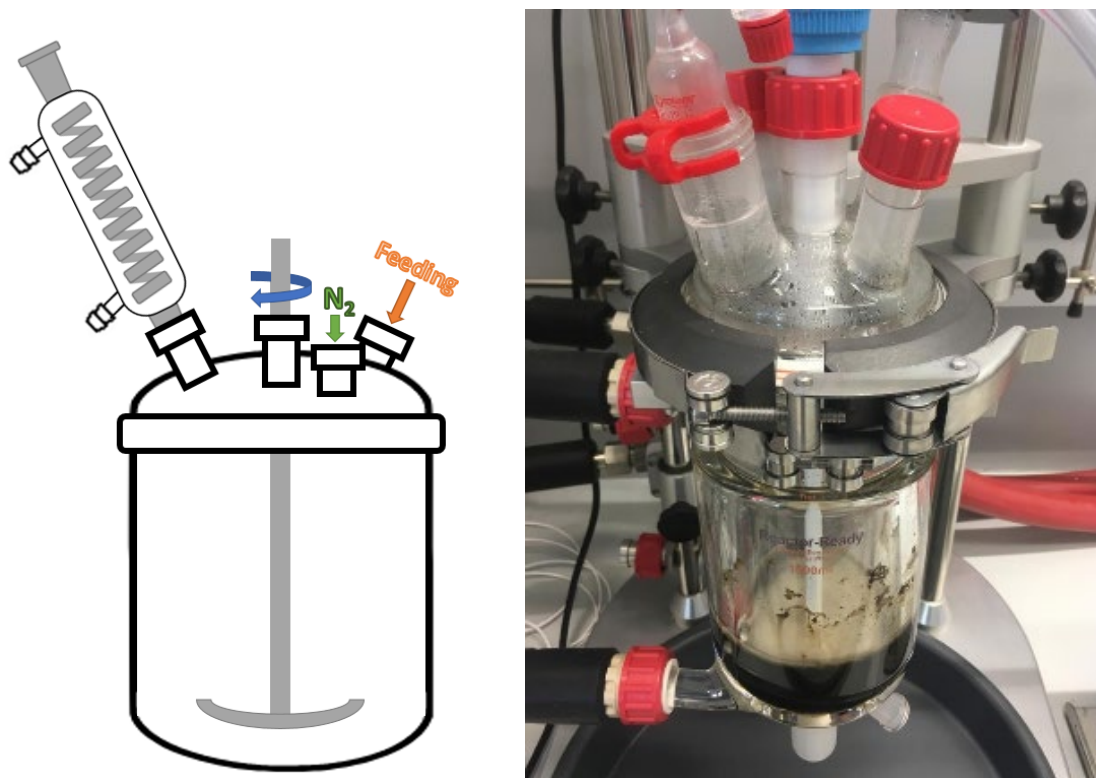


Figure S1 - Reactor scheme and picture

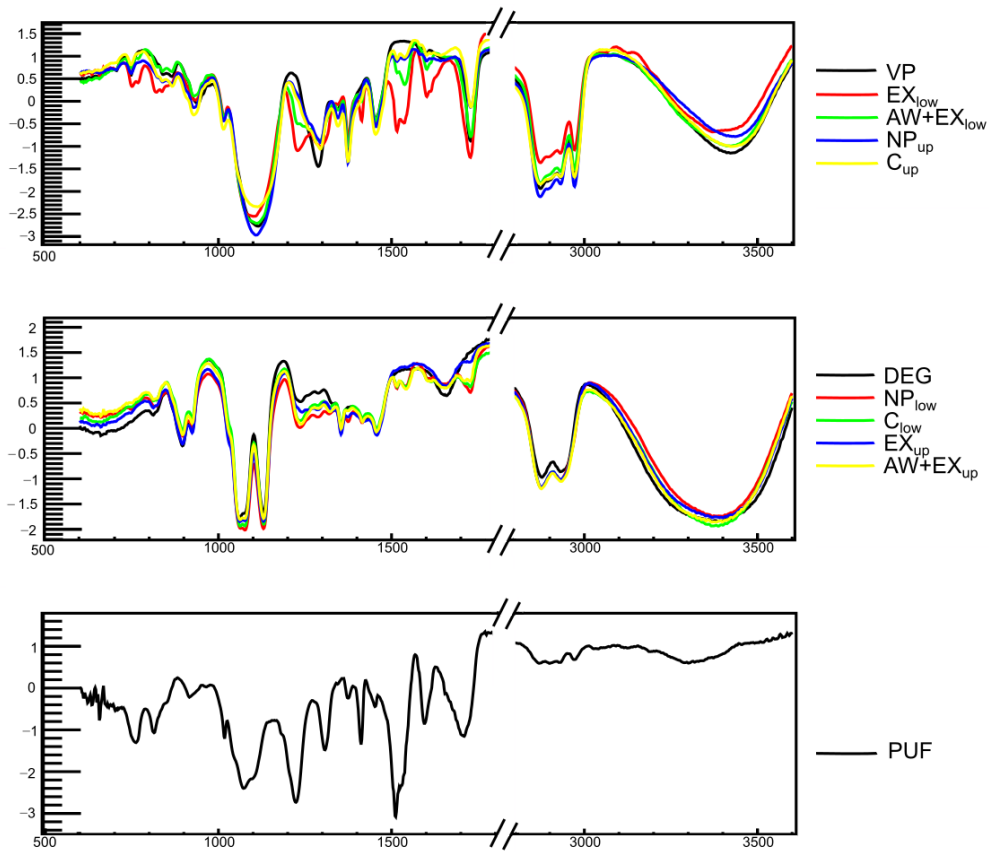


Figure S2 - Results of the clustering analysis of the IR spectra (first dataset).

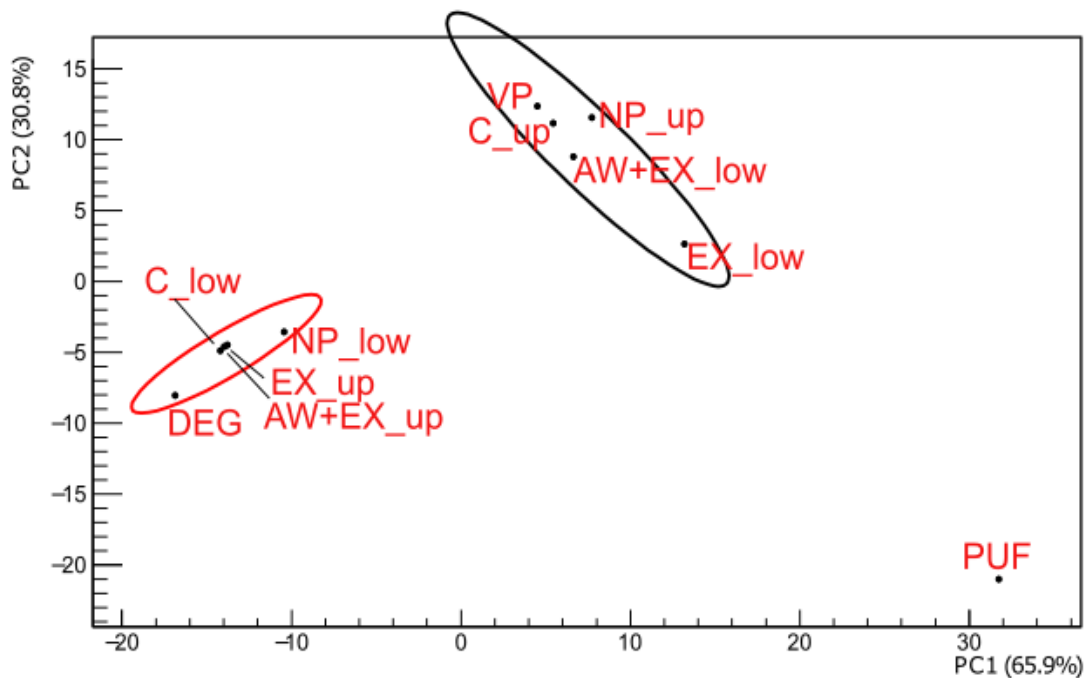


Figure S3 - PCA Score plot (PC1 Vs. PC2) of the first dataset.

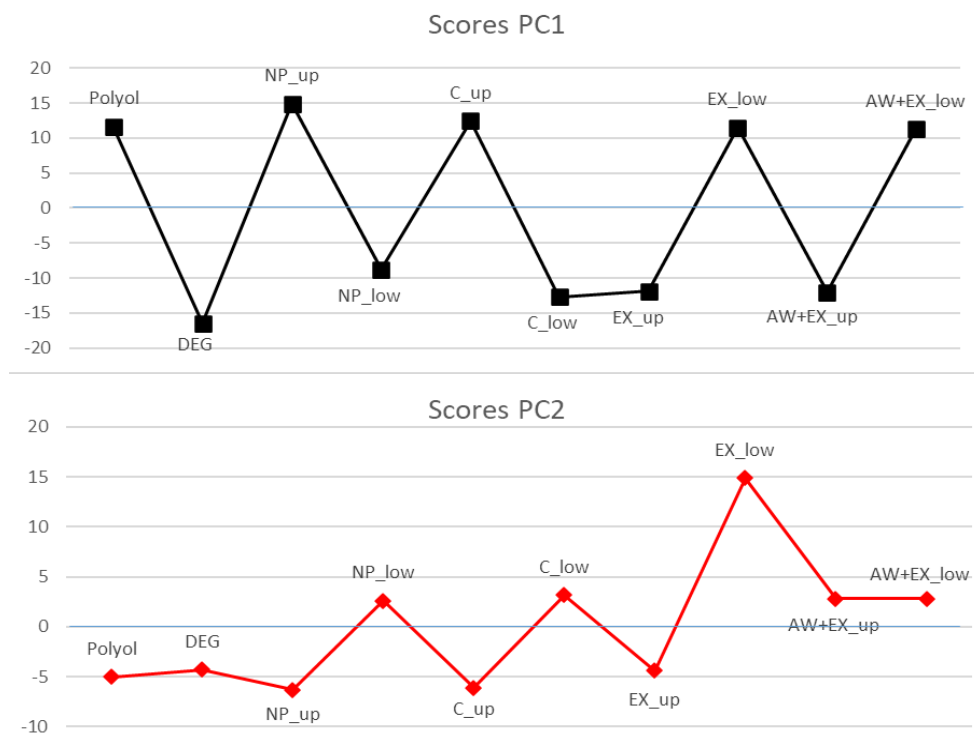


Figure S4 - Score plots of PC1 and PC2 of the second dataset.

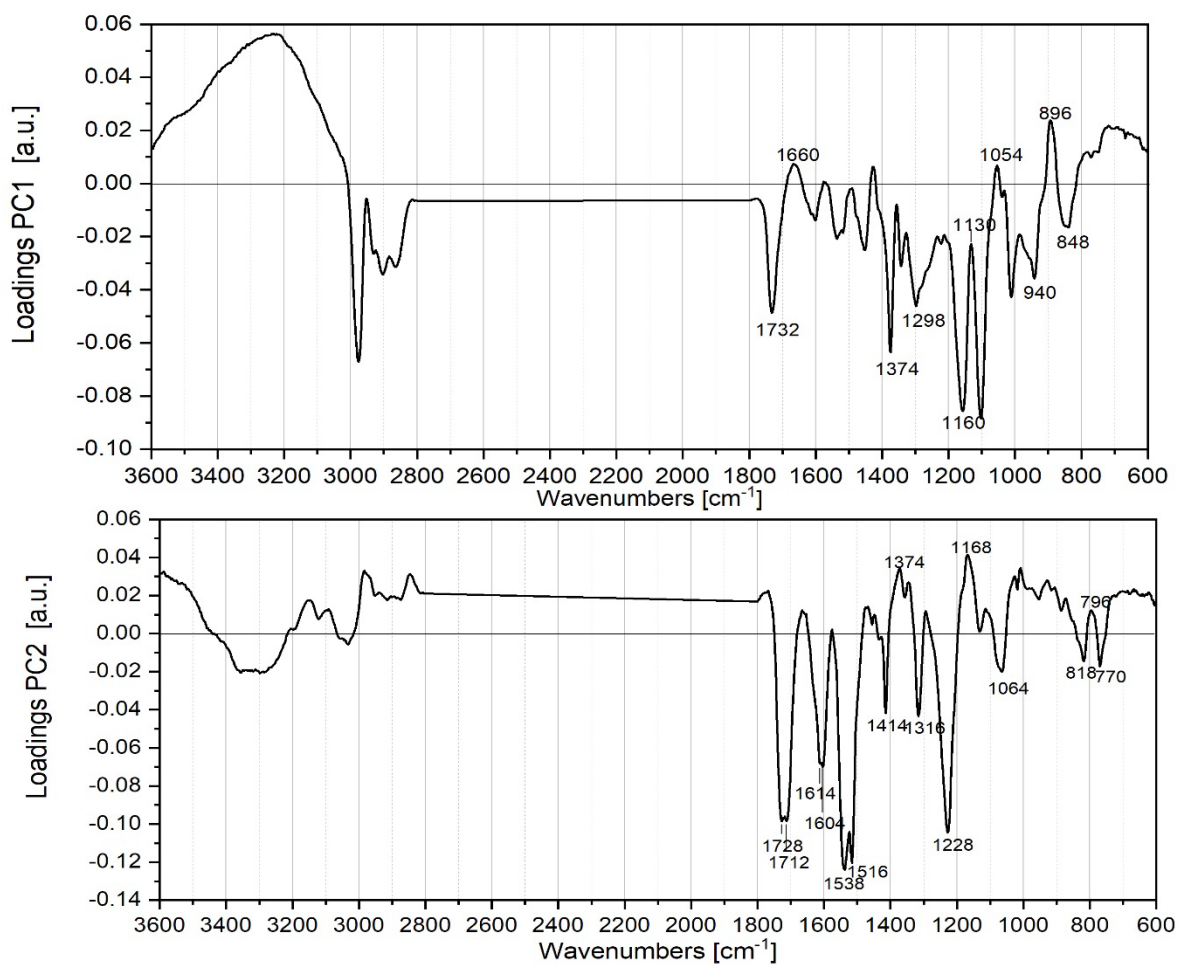


Figure S5 - PCA loading plots of PC1 and PC2 of the second dataset.

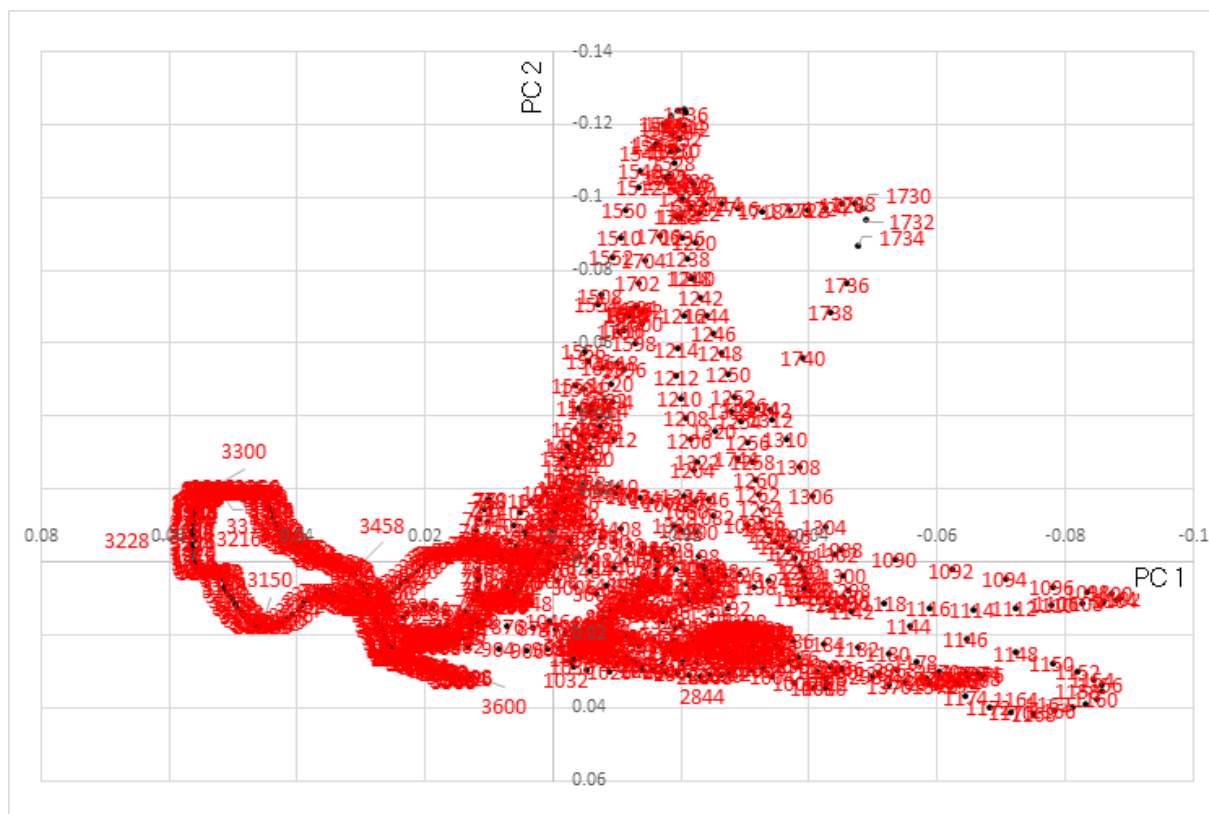


Figure S6 - Loading plot of PC1 vs. PC2 of the second dataset.

#	Criterion	Weight	NP		C		EX		AW+EX	
			Value	Score	Value2	Score2	Value3	Score3	Value4	Score4
1	Sample preparation	2	Not set	1	Not set	1	Not set	1	Not set	1
2	Hazardous materials:	5	0 [gor mL]	1	0 [gor mL]	1	3 [gor mL]	0.17	3 [gor mL]	0.17
3	Sustainability, renewability, and reusability of materials:	2	25-50% of reagents and materials are sustainable or renewable	0.25	25-50% of reagents and materials are sustainable or renewable	0.25	25-50% of reagents and materials are sustainable or renewable	0.25	25-50% of reagents and materials are sustainable or renewable	0.25
4	Waste:	3	3 [gor mL]	0.45	3 [gor mL]	0.45	3 [gor mL]	0.45	3 [gor mL]	0.45
5	Size economy of the sample	1	Mass or volume of the sample: Not set [gor mL]	1	Mass or volume of the sample: Not set [gor mL]	1	Mass or volume of the sample: Not set [gor mL]	1	Mass or volume of the sample: Not set [gor mL]	1
6	Sample throughput:	4	0 [samples/h]	1	15 [samples/h]	0.64	6 [samples/h]	0.42	6 [samples/h]	0.42
7	Integration and automation	5	Sample prep. steps: 2 steps or fewer, Manual systems	0.25	Sample prep. steps: 2 steps or fewer, Semi-automated systems	0.5	Sample prep. steps: 3 steps, Semi-automated systems	0.38	Sample prep. steps: 4 steps, Semi-automated systems	0.25
8	Energy consumption:	4	0 [W]	1	70 [W]	0.5	0 [W]	1	0 [W]	1
9	Post-sample preparation	3	Not set	1	Not set	1	Not set	1	Not set	1
10	Operator's safety:	3	No hazards or no exposure	1	No hazards or no exposure	1	1 hazard	0.75	2 hazards	0.5
TOTAL SCORE				0.78		0.72		0.58		0.54

Table S1: Details on the AGREEprep scores.