

Supplementary Information

Removal of Endocrine Disrupting Chemicals from Water through Urethane Functionalization of Microfiltration Membranes via Electron Beam Irradiation

Zahra Niavarani,^a Daniel Breite,^a Muhammad Yasir,^b Vladimir Sedlarik,^b Andrea Prager,^a Nadja Schönherr,^a Bernd Abel,^c Roger Gläser,^c and Agnes Schulze^{*a}

^a Leibniz Institute of Surface Engineering e.V. (IOM), Permoserstrasse 15, 04318 Leipzig, Germany.

^b Centre of Polymer Systems, University Institute, Tomas Bata University in Zlin, Trida Tomase Bati 5678, 76001 Zlin, Czech Republic.

^c Institute of Chemical Technology, Leipzig University, Linnestrasse 3, 04103 Leipzig, Germany.

E-mail address: agnes.schulze@iom-leipzig.de

Tables 1 Dynamic adsorption loadings and permeance values for different layers of pristine and modified PES membranes

Number of layers	Adsorption loading / mg/m ²		Permeance / L/h m ² bar
		PES	
1	0.8 ± 0.2		23,067 ± 1000
2	1.1 ± 0.2		21,052 ± 1000
3	1.4 ± 0.5		19,189 ± 800
		PES+UR	
1	3.2 ± 0.5		26,212 ± 1200
2	5.2 ± 0.6		21,032 ± 1000
3	6.7 ± 0.7		18,023 ± 700

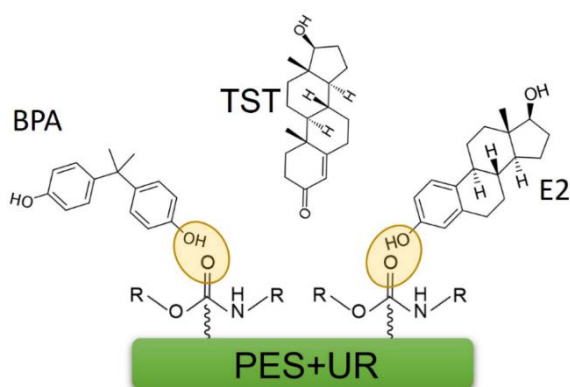


Figure 1s. Adsorption mechanism between the modified membranes and EDCs

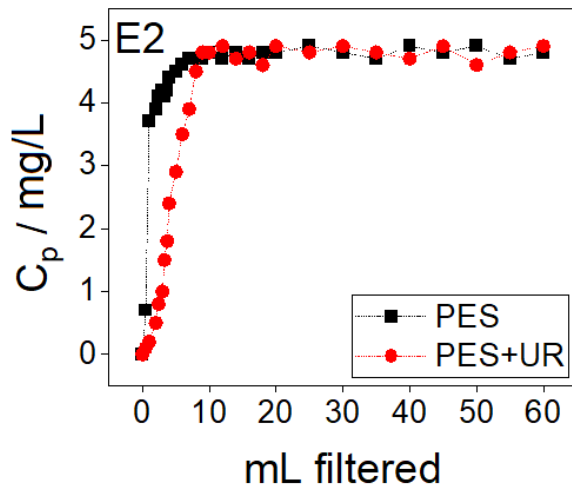


Figure 2s. The breakthrough curve for the adsorption of E2 from samples prepared with tap water samples.

Tables 2. Tap water composition provided by the city of Leipzig's report.

	Mg/L
Calcium	83
Chloride	49
Iron	0.021
Potassium	5.6
Magnesium	16
TOC	2