

Supplementary Information

Degradation and *de novo* formation of nine major glucose degradation products during storage of peritoneal dialysis fluids

Sabrina Gensberger-Reigl¹, Ingrid Weigel¹, Joachim Stützer¹, Andrea Auditore¹, Tim Nikolaus², Monika Pischetsrieder^{1}*

¹ Food Chemistry, Department of Chemistry and Pharmacy, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Nikolaus-Fiebiger-Straße 10, 91058 Erlangen, Germany.

² Fresenius Medical Care Deutschland GmbH, Frankfurter Straße 6-8, 66606 St. Wendel, Germany

*Correspondence to: monika.pischetsrieder@fau.de

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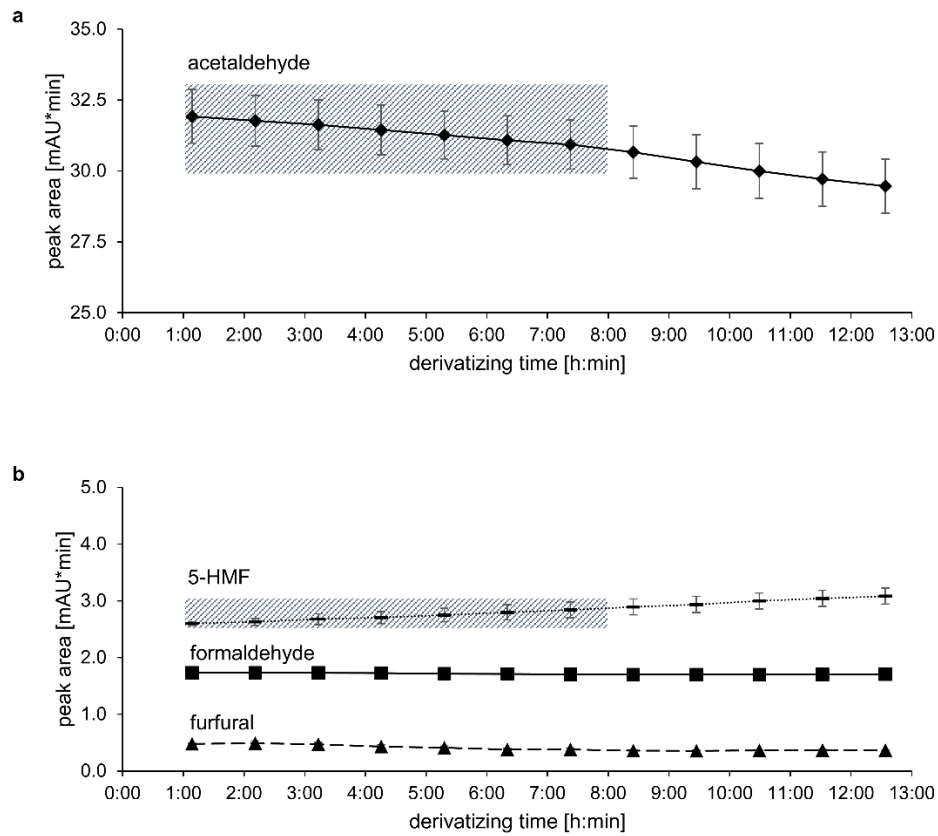


Figure S-1 Effect of the derivatization time on the peak area of **(a)** acetaldehyde (♦) and **(b)** 5-hydroxymethylfurfural (5-HMF, —), formaldehyde (■), and furfural (▲) in a single-chamber peritoneal dialysis fluid. The grey boxes show the median value from one to eight hours $\pm$ 5%.

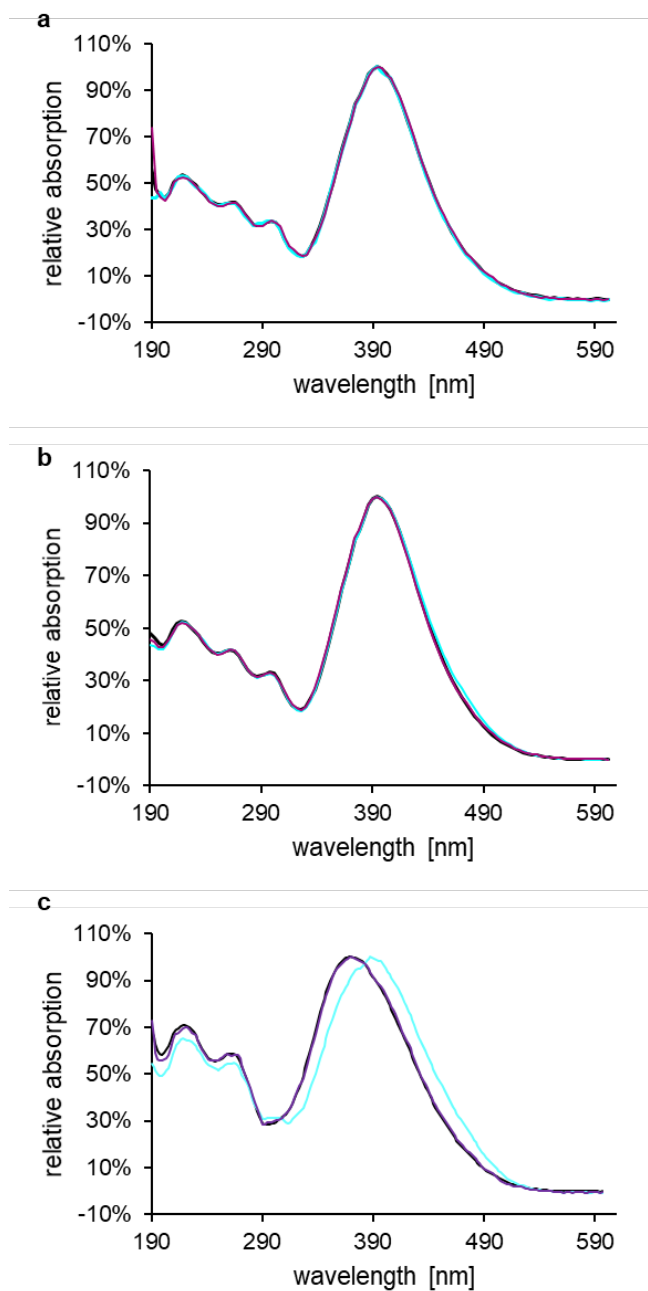


Figure S-2 UV/Vis spectra of the DNPH derivative of furfural in **(a)** solvent, **(b)** unheated PD matrix containing 4.25% glucose, and **(c)** a heat-sterilized single-chamber peritoneal dialysis fluid. Spectra at apex (black) and 50% at full height of the front (turquoise) and tail (purple) are displayed. A hypsochromic shift of the UV/Vis spectra could be observed at 50% at full height at the tail and the apex of the furfural signal in commercial single-chamber peritoneal dialysis fluids.