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## **Supporting Information**

## Impact of the shaping of Aquivion PFSA on its catalytic performances in the Fischer glycosylation of glucose with *n*-dodecanol

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<b>Figure S1</b> . Swelling of <b>AqPowd</b> in <i>n</i> -dodecanol after 7 h at 40°C (powder volume changed from 4.0 ml	
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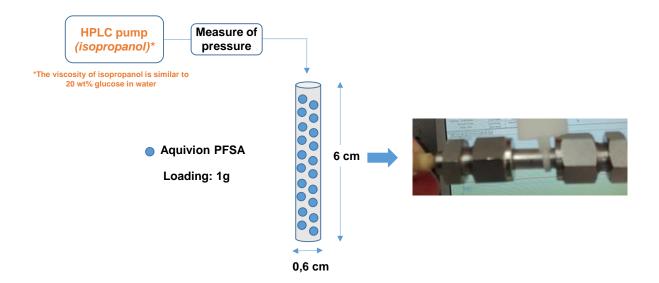
Chemical and reagents: Glucose, *n*-Dodecanol and H<sub>2</sub>SO<sub>4</sub> were purchased to Sigma-Aldrich and were used without further purification. AqPowd, AqMicP and AqMacP were kindly provided by Solvay Specialty Polymers.

Gas chromatography (GC) analyses were performed on a Varian 3900 instrument equipped with a flame ionization detector and an HT5 column (30 m x 0.32 mm x 0.25  $\mu$ m). The oven was heated from 90 to 220 °C with a heating ramp of 10 °C/min and then to 320 °C with a heating ramp of 5 °C/min..

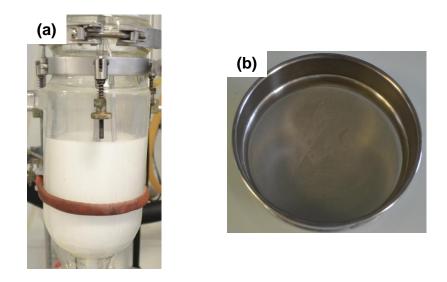
## **Additional figures**



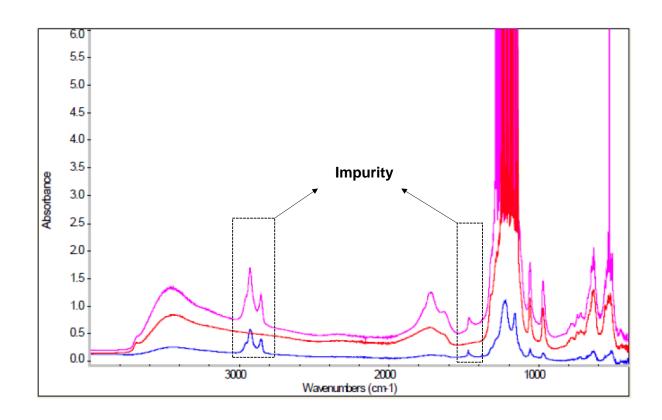
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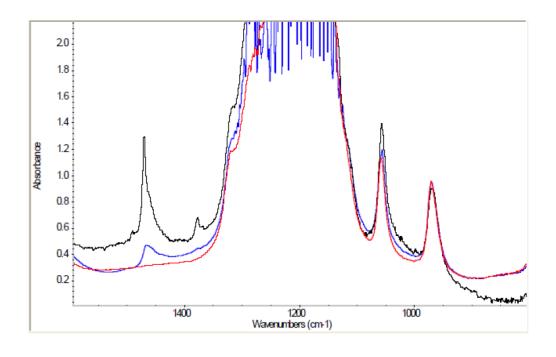
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**Figure S4**. Overlapping of spectra of fresh **AqMicP** (red), used before washing **AqMicP** (blue) and used **AqMicP** after washing (purple).



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