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ELECTRONIC SUPPLEMENTARY INFORMATION.

Chemo-enzymatic production of omega-3 monoacylglycerides using sponge-like ionic liquids and supercritical carbon dioxide

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NMR analysis

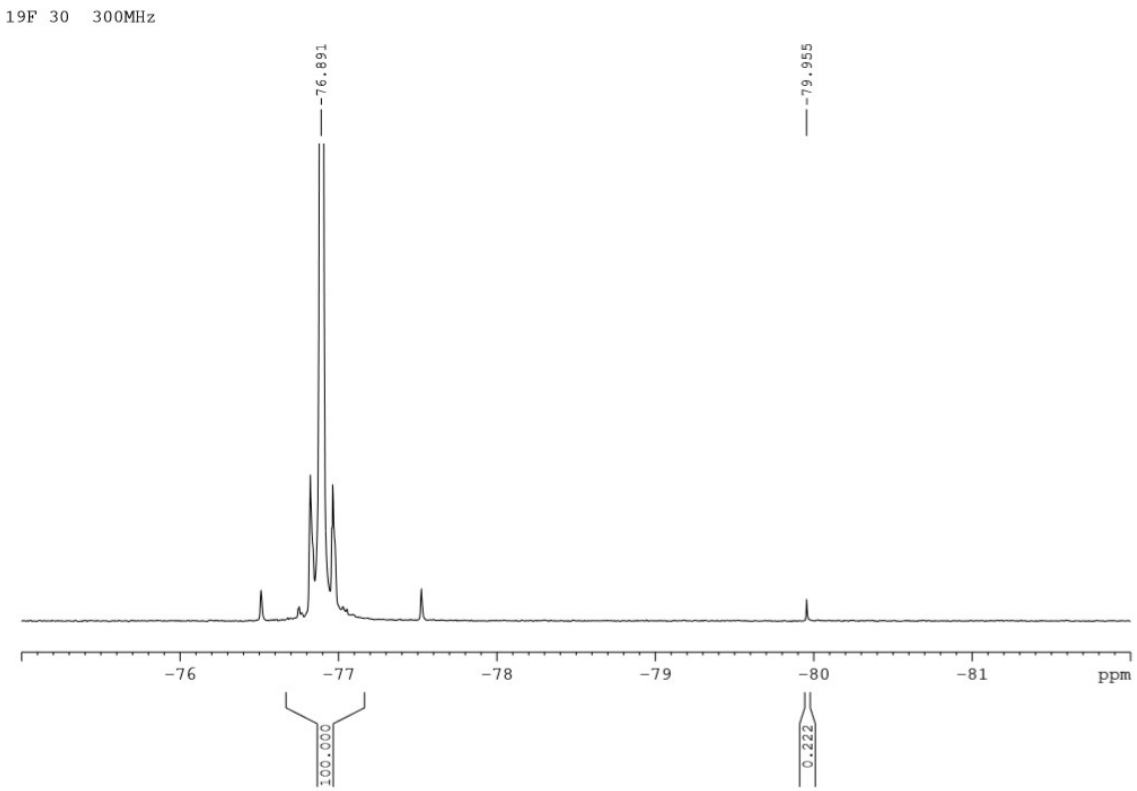
Samples preparation of reaction media containing SLILs

As a representative example for the determination of residual IL in the Solketal fatty acid ester product, the enzymatic synthesis of PHASE was selected from linseed oil and solketal in [C_{18}tma] [NTf_2]. After the enzymatic reaction, the samples of the reaction medium (20 µL), which contained the FASEs and the IL (40% w / w), were dissolved in 0.48 ml of acetone-δ_6, containing 10 µL of TFA (internal standard) for NMR analysis for each case

Then, the reaction mixture (0.5 ml) was placed in a 1 ml vial. The system was cooled, followed by centrifugation (15,000 rpm, 15 min) at 15ºC and 5ºC, which caused FASEs in the upper phase (liquid phase), while IL (solid phase) remained at the bottom. The protocol was carried out two more times as described above After each cooling / centrifugation cycle, a sample (15 µL) of the upper phase (FASEs) was dissolved in 0.485 mL of acetone-δ_6, containing 5 µL of TFA (internal standard), then analyzed by 282 MHz 19F NMR on a Brucker AC 300E Spectrometer.

FASEs obtained from linseed oil and solketal in 40% (w/w) **[C_{18}tma][NTf_2]**

1.1. ^{19}F NMR spectrum of the collected FASEs fraction after two consecutive cooling + centrifugation steps.



1.2. ^{19}F NMR spectrum of the IL $[C_{18}tma][NTf_2]$