

Figure S1. Laboratory unit for continuous ethanol drying on zeolite (1 – wet alcohol container; 2 – peristaltic pump; 3 – flow-through water filter housing; 4 – zeolite; 5 – zeolite dust filter; 6 – container of dry alcohol).

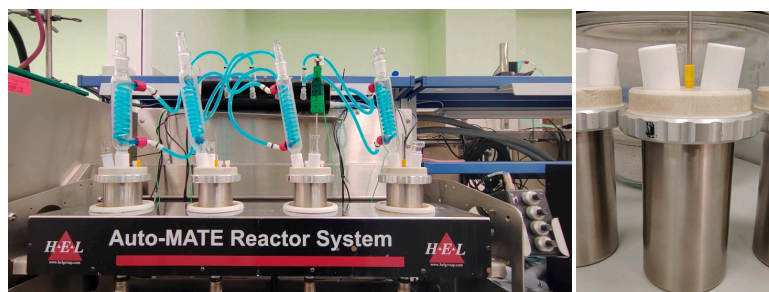


Figure S2. Auto-MATE Reactor System with perfect-mixing reactors.

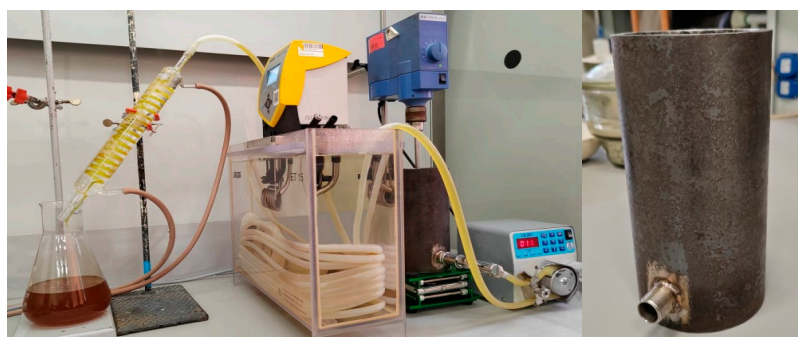


Figure S3. Laboratory unit for the synthesis of FAEE in the PFR.

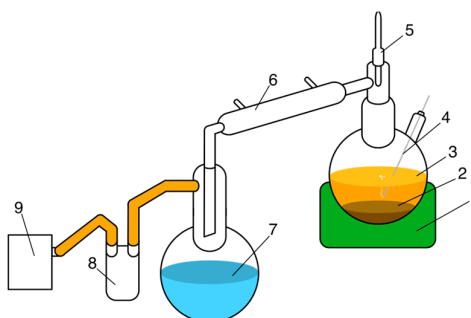


Figure S4. Ethanol separation unit: 1 – heating mantle; 2 – glycerol phase; 3 – FAEE phase; 4 – glass capillary; 5 – thermometer; 6 – Liebig condenser; 7 – collection flask; 8 – water trap with air inlet tap; 9 – vacuum pump.

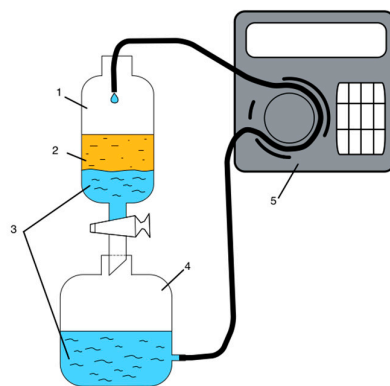


Figure S5. FAEE flushing unit: 1 – separating funnel; 2 – FAEE; 3 – H_2SO_4 flushing solution; 4 – tank for the supply of acid flushing solution; 5 – peristaltic pump.

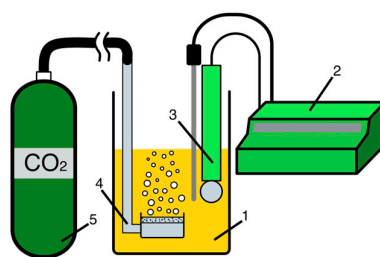


Figure S6. Laboratory barbotage unit: 1 – FAEE phase; 2 – pH-meter; 3 – pH-meter electrode; 4 – gas washer; 5 – carbon dioxide tank.

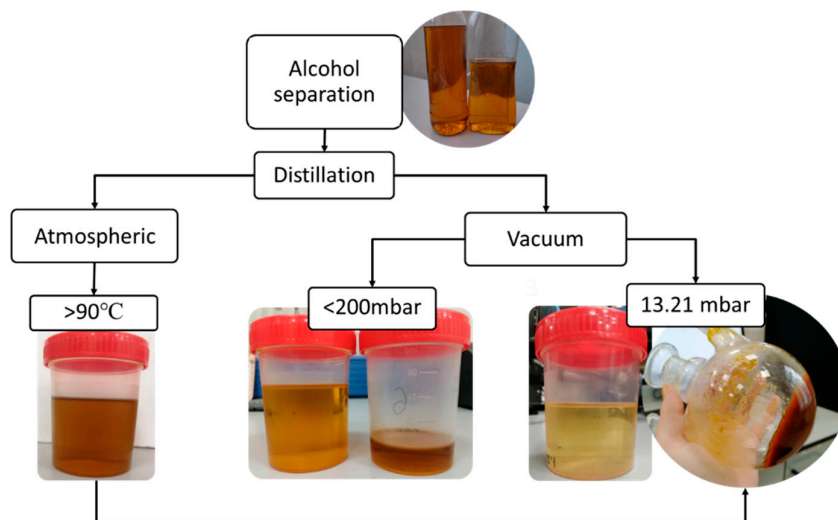


Figure S7. The ethanol separation results.

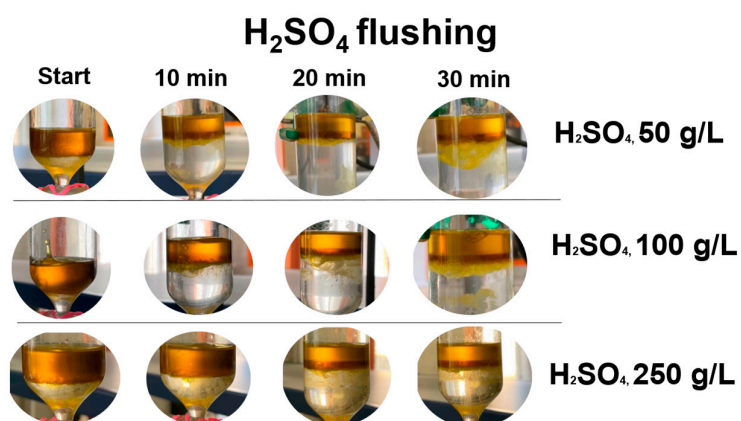


Figure S8. H₂SO₄ flushing results.

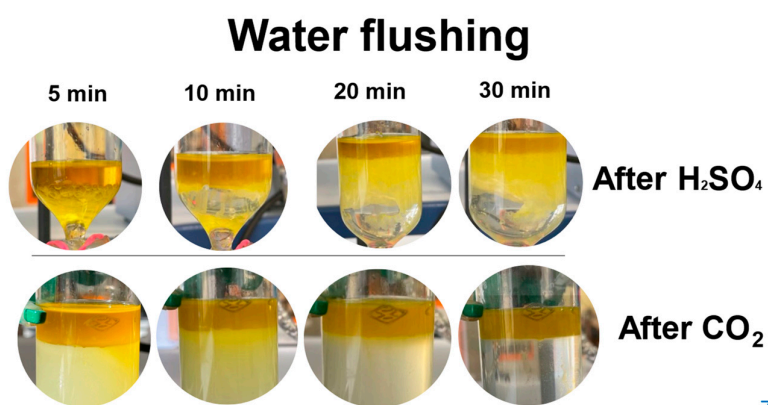


Figure S9. Water flushing results.

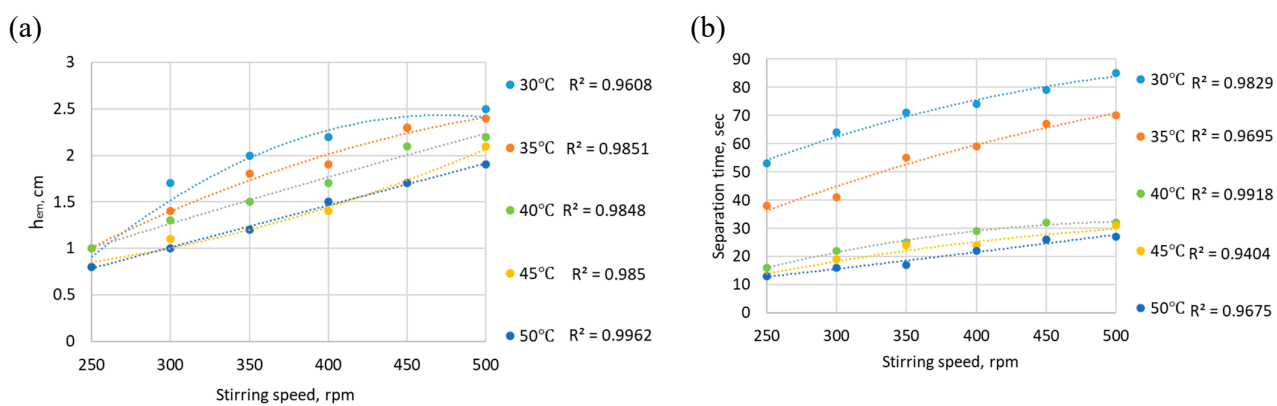


Figure S10. Dependences of emulsion height and separation time on the stirring speed in ethyloleate-water system.

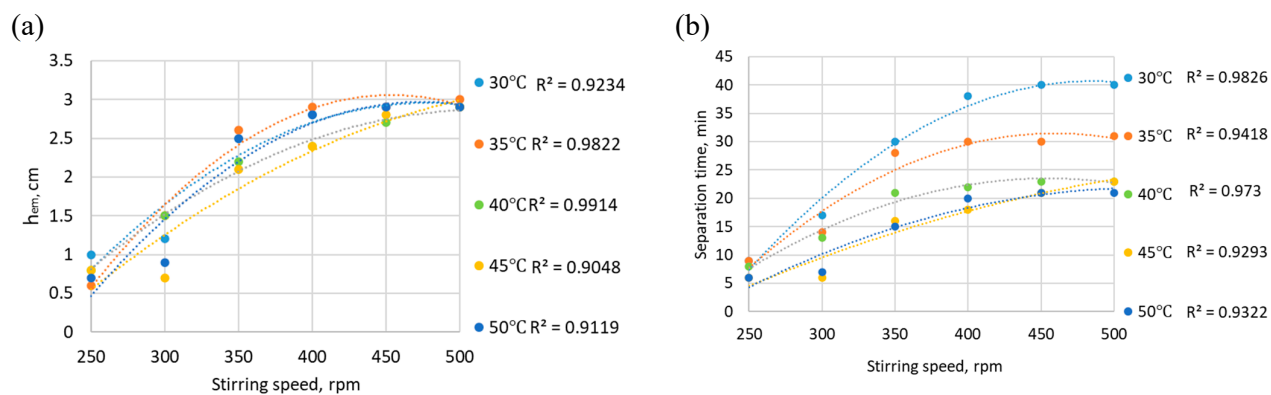


Figure S11. Dependences of emulsion height and separation time on the stirring speed in FAEE phase-water system.

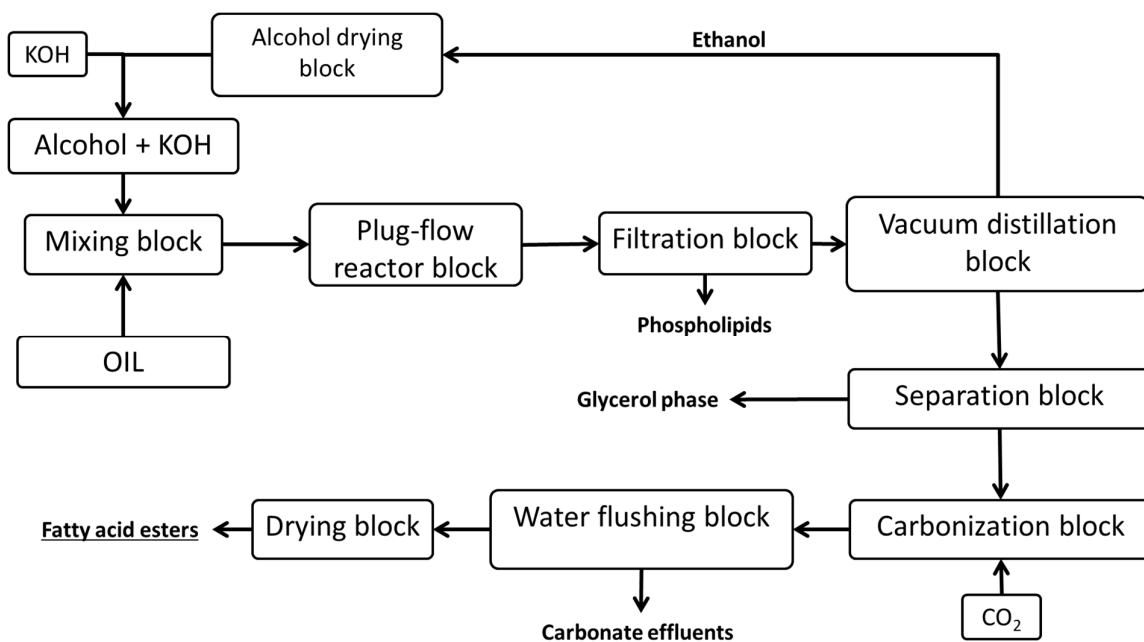


Figure S12. Principal technological scheme of FAEE production in PFR.