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MDPI

Supporting Information

Strategy for Fast Decision on Material System Suitability for Continuous Crystallization Inside a Slug Flow Crystallizer

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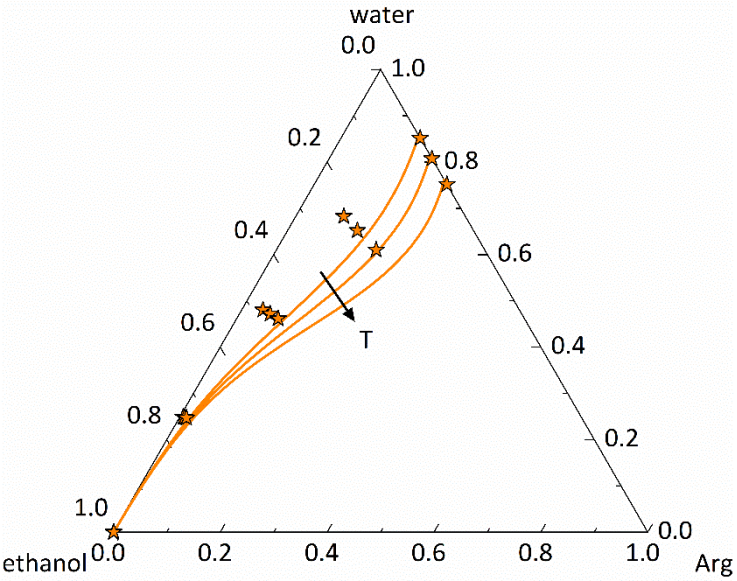

Figure S1. Ternary phase diagram of Arg/water/ethanol at 0.1 MPa with compositions given in mass fractions: Solubility lines were predicted in this work using PC-SAFT, and symbols denote solubility measurements performed in this work. The arrow indicates the direction of increasing temperature from 20 °C to 30 °C, and 40 °C.

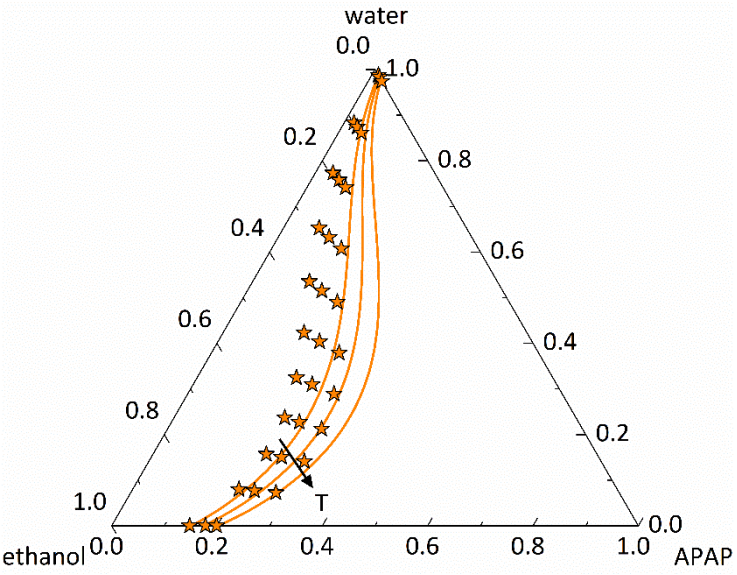

Figure S2. Ternary phase diagram of APAP/water/ethanol at 0.1 MPa with compositions given in mass fractions: Solubility lines were predicted in this work using PC-SAFT, and symbols denote solubility measurements from JIMENEZ AND MARTINEZ [62]. The arrow indicates the direction of increasing temperature from 20 °C to 30 °C, and 40 °C.

Figure S3. Images of water slugs (w_{EtOH} = 0 %) at the end of tubing (L = 7.5 m) at different total volume flow rates Q_{tot}. The experiments were conducted at ambient temperature ($\vartheta_{amb} \approx$ 22 °C).

Figure S4. Images of slugs (w_{EtOH} = 10 %) at the end of tubing (L = 7.5 m) at different total volume flow rates Q_{tot}. The experiments were conducted at ambient temperature ($\vartheta_{amb} \approx$ 22 °C).

Figure S5. Images of slugs (w_{EtOH} = 20 %) at the end of tubing (L = 7.5 m) at different total volume flow rates Q_{tot}. The experiments were conducted at ambient temperature ($\vartheta_{amb} \approx$ 22 °C).

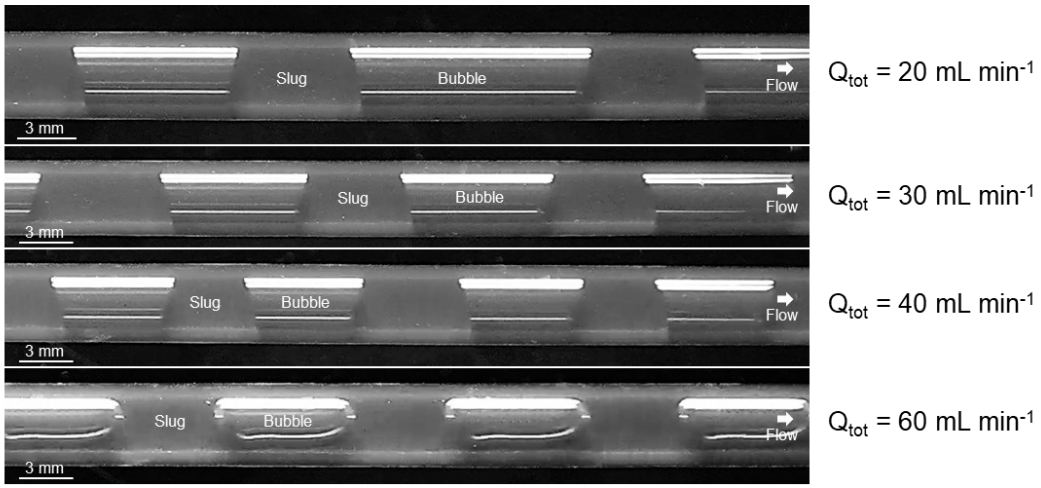

Figure S6. Images of slugs (w_{EtOH} = 30 %) at the end of tubing (L = 7.5 m) at different total volume flow rates Q_{tot}. The experiments were conducted at ambient temperature ($\vartheta_{amb} \approx$ 22 °C).

Figure S7. Images of slugs (w_{EtOH} = 50 %) at the end of tubing (L = 7.5 m) at different total volume flow rates Q_{tot}. The experiments were conducted at ambient temperature ($\vartheta_{amb} \approx$ 22 °C).