Crystal Growth Rates and Dispersion for *D*-Fructose from Aqueous Ethanol

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The growth of fructose crystals from aqueous ethanolic solutions was studied using a 1-L seeded batch crystallizer. The growth kinetics were found to linearly depend on the relative supersaturation of the crystallizing tautomer (β-D-fructopyranose). The growth-rate constant increased slightly with increasing temperature and increasing solvent ethanol content. The growth rates are lower than those for aqueous solutions of comparable supersaturations. Fructose displays significant growth-rate dispersion ($q = 0.35$) when crystallized from aqueous ethanolic solutions. The growth-rate dispersion is independent of solvent composition and temperature within the range studied, although it is slightly higher than is seen in crystallization from aqueous solutions.

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