

### Feeding Mode Effect on Phase Transformation of GMP in Continuous Couette–Taylor Crystallizer

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A continuous Couette–Taylor (CT) crystallizer exploiting the feed mode was developed to promote the phase transformation of guanosine 5–monophosphate (GMP). With a suitable strategy feed mode, the dissolution of the amorphous GMP and growth of the hydrate GMP crystals were both markedly promoted, allowing the phase transformation to be completed within a mean residence time of 2.5 min, even with a high GMP feed concentration of 150 g/l and moderate rotation speed of 300rpm. This result was faster than the phase transformation in conventional feed mode CT crystallizer under the same crystallization conditions. The efficiency of the specific feed mode for the phase transformation was explained in terms of the effectiveness of the small flow rate for the high mass transfer at the solid–liquid interface.