

## Agglomeration of metal hydroxide particles precipitated by reaction crystallization in Couette-Taylor Crystallizer

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Agglomeration is a practical size enlargement process by which fine particles, rather than ion or molecules, are joined in an assembly within suspension crystallization or precipitation process. The spherical agglomerates of metal hydroxide particles were precipitated in a continuous Couette-Taylor crystallizer. During the reaction crystallization of metal hydroxide particles, the particle agglomerates were formed via two-steps of the crystal adhesion by collision and the molecular crystal growth process. Both of them depend on of fluid hydrodynamics and supersaturation profile.

The goal of the present study to use a Couette-Taylor crystallizer in order to achieve an agglomerate particle size smaller than 10  $\mu$ m and spherical morphology of particles with narrow particle size distribution at a short mean residence time and moderate rotation speed of the inner cylinder.