

Dissolution Rate of Crystals in Solution

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Compared to growth mechanism of crystals, dissolution mechanism has not been studied so well because the phenomena has been regarded as the reverse process of crystal growth. However the phenomena is not so simple as often has been observed in coupled-dissolution and precipitation. This mechanism has been applied to the interpretation of natural mineral dissolution or replacement, it would be important for the selection of polymorphs or chirality during dissolution of medicine or some other materials, as well as natural minerals. Some examples will be shown based on the precise dissolution rate of crystals by interferometry for discussion.

Keywords: crystal growth, dissolution mechanism, spiral growth, nucleation, crystallization, phase-shift interferometry