

From solution to solid: precipitation and crystallization



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Hydrometallurgy is a process commonly encountered throughout the nuclear fuel cycle. As an example, the purification of uranium compounds from mines and the recovery of valuable material from spent nuclear fuel goes through a preliminary step consisting in the solids dissolution. The recovery of the elements of interest then requires a crystallization / precipitation step on which the properties of the final powders will partly depend. We will discuss some laws which govern crystallization / precipitation and some means of modulating crystal growth.