Study for efficient mixing in supercritical fluid

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Microreactors composed of small channels have been widely used to fabricate inorganic nano particles. Since it was known that distribution of temperature affects the quality of products, which are uniform size and higher purity, mixing phenomena and heat transfer in such reactors are being studied in various fields. This study applied computational fluid dynamics to predict mixing tendency and temperature profile inside of a microreactor with supercritical fluid. It was observed that control of inlet temperature is important.