Characterising aggregate structure in natural waters using on-line laser light scattering

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Introduction

There is still a lack of studies focusing on the fate of ENPs aggregates and their potential disaggregation behaviour. In this study, we proposed and demonstrated a simple method for characterising the aggregation behaviour and aggregate structure of ENPs in natural waters.

Results and Discussion





This novel set-up presents several advantages over conventional light scattering measurements. For instance, by recirculating the sample inside the measurement cell, it is possible to change the conditions of the sample and directly measure the effects of such changes on aggregate size. Besides, the fractal dimension of the aggregates can be studied using a static light scattering (SLS) instrument equipped with a series of photosensitive detectors.