



## Optimized conditions for application of organic flocculant aids in water purification

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The application of organic flocculant aid (OFA) to a system undergoing aggregation has a direct effect on the quality of purified water as well as the settleability of resultant agglomerates. The optimum conditions for OFA application exist when the formation of aggregates by means of destabilisation (aggregation – CPE) reagent reaches flocculation optimum, i.e. the measure of flocculation  $\gamma=1$ , prior to OFA addition. Such method of OFA application is called the Post-Orthokinetic Agglomeration (POA) process. The POA process results in the formation of the fastest settleable agglomerates and the best quality of purified water matching that attainable without the use of OFA. Recirculation of the sludge conditioned by OFA back to the process of particle aggregation was found undesirable as it adversely affects the purified water quality as well as the settleability of produced agglomerates.

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