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ELECTRO-COAGULATION – PROCESS AND DATA ANALYSIS (THE SIGNIFICANCE OF STANDARDISATION AND CLARITY)

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Electro-coagulation is a water treatment method that is used to remove a wide range of contaminants through (co)precipitation processes. It can be used as a replacing method to standard chemical coagulation which is one of the most common water and wastewater treatment processes. The attention to electro-coagulation has been very intense but the data interpretation is rather poor and lacks of standardized procedure.
The purpose of this contribution is to show how, unlike frequently reported in the literature, a fundamental process parameter – current intensity – is the process determining step with regards to extent of contaminant removal (rather than current density). It is also important to demonstrate that the terminology with a vision to unify experimental data presentation and implementation of jar-testing procedure as standardized method for process evaluation with the same objective is essential. Finally, shortfalls and solutions to experimental design are discussed and presented.

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