

# **Study of organic pollutant degradation by advanced processes**

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The Advanced Oxidation Process (AOP) are promising environmentally friendly technologies for the treatment of wastewater containing organic pollutants. The objective of our work is to study the possibility of destroying the dye Methyl Orange by some POA then compare the efficiencies of the processes used (Fenton, photo-Fenton and electro-Fenton). Our study therefore focused on the degradation of this toxic dye. The comparative study of Fenton, photo-Fenton and electro-Fenton processes revealed that the electro-Fenton is the best method for oxidizing the dye. The dye of the degradation kinetics by the electro-Fenton process is very fast where the degradation rate reached 90.87% after 5 minutes. The degradation of organic matter was monitored by UV / Visible spectrophotometry and its mineralization is valued by measuring the chemical oxygen demand (COD). The influences of several parameters are studied.