

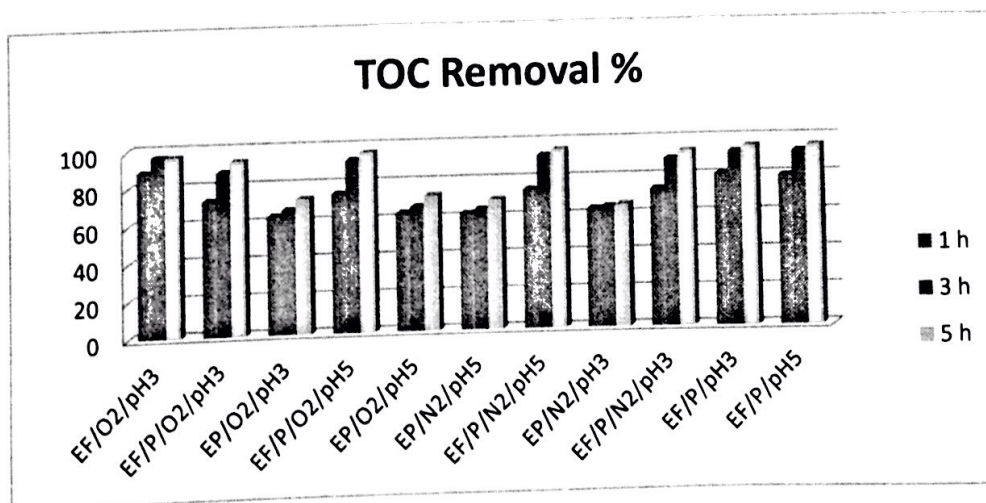
# Mineralization of Basic Red 18 azo dye in aqueous solution by electro-Fenton, electro-activated persulfate and unified electro-Fenton/persulfate systems

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Textile industry is one of the most important and rapidly developing industrial sectors. In this sectors use of a large variety of chemical treatments, dyes and discharged wastewater by some industries under uncontrolled and unsuitable conditions into their local waterways has resulted in environmental and health hazards. Azo dyes are important because it represents the 70% of the organic dyes consumption. The scope of this investigation was to study the mineralization of synthetic wastewater containing Basic Red 18 azo dyes using electrochemical advanced oxidation processes (EAOPs) as electro-Fenton, electro-activated persulfate and unified electro-Fenton/persulfate systems. The main advantages of EAOPs is it environmental compatibility, because the main reagent is the electron. Other advantages are related to its versatility, a catalytic amount of chemical consumption, amenability of automation and safety due to mild operation conditions [1]. The effect of pH (3, 5), gas (N<sub>2</sub>, O<sub>2</sub>) and time (1, 3, 5h) on mineralization efficiency was investigated.



## REFERENCES

- [1] Martinez-Huitle, C.A., Brillas, E. (2009). Decontamination of wastewaters containing synthetic organic dyes by electrochemical methods: A general review, *Appl. Catal. B: Environ.*, 87, 105-145.