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## Studies about some azo dyes decomposition in the ultrasonic field

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**Abstract** This paper presents the obtained results following the study on the decomposition reactions of five dis-azo dyes, obtained by coupling I acid (1-hydroxy- 6-aminonaphtalene 3-sulfonic acid) with different amines. Aqueous dye solutions, having concentrations of  $10^{-4}$ M were submitted to ultrasound treatment (1000 kHz) for three ultrasonic output power stages and the molecular absorption modifications in time were studied. It was found that under the influence of the ultrasounds, the studied dis-azo dyes suffer decomposition reactions. Anyhow, decomposition of the dis-azo dyes depends on the energy of ultrasonic irradiation and on the dye structure. It can be formulated the supposition that during the sonolysis an energy stocking is realized that can explain the modification of molecule configuration and finally the dye decomposition.

*Keywords:* Dis-azo dyes decomposition, Sonolysis/sonication, Ultrasonic irradiation, Ultrasonic power output stage, Molecular absorption spectrometry, Conductivity

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