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WATER POLLUTION REDUCTION BY USING NEW PREMETALATED DYES IN DYEING WOOL

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Abstract

This study shows the dyeing behaviour and impact over the wastewaters quality resulted from dyeing wool fibres, of a new synthesized premetalated dyes, derived from new acid dye, sodium(*E*)-2 -((1-amino-4-sulphonatonaphthalen-2-yl)diazanyl)-6-methoxybenzo[*d*]thiazole- 5 or 7 -sulphonate, as a result of interaction with Ni(II) and Zn(II) ions. In order to characterize the complexed dyes they were studied in both phase: solution and solid phase. The dyeing performances assessment and the environmental impact has been made by a comparative study between the obtained results with complexed dyes and uncomplexed dyes. Applying and testing dyes at two different values of acid medium (pH=2 and pH=5) has been performed by two procedures: with the complexed dyes formation on the fibres in the process bath and their preformation in solid phase.

Key words: dyeing, dyes, environment, premetalated, wastewaters

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