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INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

“INTEGRATING CLEANER PRODUCTION INTO SUSTAINABILITY STRATEGIES”

Alternative Sustainable Dyeing of Textiles with Ionic Liquid

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Abstract

The dyeing processes are extremely important for the differentiation and marketing of textile products. The dyeing takes place by fixing the dye molecule to the fibers, usually aqueous, that is, using water as the primary solvent for the process. It is estimated that spends on average 125 liters of water per kilogram of textile article produced. Whereas there is currently great interest in finding environmentally sustainable substances for this process, one of the alternatives is the use of Ionic Liquid (IL) as solvent substance for dyeing textiles due to its low cost, simple synthesis, biodegradation of high character and ability reuse. The Protic Ionic Liquids (LIP) are produced by acid-base reaction. Until now, there has been few studies directed towards application LI for application to textile dyeing thus justified studies in this area. This study will present multi-fiber textile dyeing fabrics using Ionic Liquids base Diethanolamine (DEA) as a solvent instead of water. The analyzes of the results will be made in equipment spectrophotometer, observing the graph of K/S.

Keywords: Textile Dyeing, Dye, Fiber, Ionic Liquid, Sustainability

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