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MONITORING OF PAHs IN REFINERY EFFLUENTS

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Abstract

A study was fulfilled concerning the source and the distribution of PAHs in the effluent proceeding from an oil refinery. The monitoring of the PAHs concentration in the refinery's effluent also was performed during a year long. The practical goal of the work was to observe the complying with the limits imposed by the current legislation and to identify the potential risks of exceeding these limits in the future. For this study, gas chromatographic and HPLC methods were used. The methods were optimized in order to increase the accuracy of the results. The study concludes that up to now the refiner has complied with the limits imposed by the European legislation, due to the good treatment of wastewater. Also, a tendency of 4 ring hydrocarbon content increasing was observed during the cold season, due to the poorer efficiency of the biological step in the wastewater treatment station.

Key words: PAHs, effluent monitoring, gas chromatography, HPLC

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