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**MODELING AND OPTIMIZATION OF DIESEL OIL  
SPILL REMOVAL FROM WATER SURFACE  
USING SHREDDED STRIPS OF POLYPROPYLENE  
AS SORBENT**

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**Abstract**

The paper presents the results of a study performed in order to optimize the Diesel oil spill removal from water surface using shredded strips of polypropylene as the sorbent. A regression equation was proposed to express the correlation between cleanup performance and the independent variables influencing the process, i.e. the amount of sorbent, drain time and initial volumetric content of oil in water. Based on this equation, optimal conditions of the experiment were determined. The decontamination efficiency verified experimentally under these conditions was the best one. The spatial representation of the dependence between decontamination efficiency and independent variables were drawn.

*Keywords:* oil spill, oil sorbent, mathematical modeling, experiment optimization

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