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Extraction of Aromatic Hydrocarbons from Lub Oil Using Sursurfactant as Additive

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Abstract : Solvent extraction is an affective method for reduction of aromatic content of lube oil. Frequently with phenol, furfural, NMP(N-methyl pyrrolidone). The solvent power and selectivity can be further increased by using surfactant as additive which facilitate phase separation and to increase raffinate yield. The aromatics in lube oil were extracted at different temperatures (ranging from 333.15 to 343.15K) and different concentration of surfactant (ranging from 0.01 to 0.1% wt).The extraction temperature and the amount of sulfate lauryl éther de sodium In phenoll were investigated systematically in order to determine their optimum values. The amounts of aromatic, paraffinic and naphthenic compounds were determined using ASTM standards by measuring refractive index (RI), viscosity, molecular weight and sulfur content. It was found that using 0,01%wt. surfactant at 343.15K yields the optimum extraction conditions.

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