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## Sufactants- Suspended Solid Drag Reduction Systems in Pipelines

By Hayder A. Abdulbari Al-Khfaji

LAP Lambert Acad. Publ. Sep 2011, 2011. Taschenbuch. Book Condition: Neu. 220x150x7 mm. This item is printed on demand - Print on Demand Neuware - The concept of drag reduction allows the pipelines to be operated at a lower pressure drop, thus reducing energy consumption and costs while transporting fluids through onshore and offshore pipelines, channels, cooling and heating devices, etc. The objective of drag reduction study is to find a suitable means to reduce the physical force or drag that resists the movement of fluids through transporting media. Drag is identified through pressure drop measurement in piping system. The addition of a small amount of certain chemical additives in transporting system could reduce the drag. These chemicals additives are known as drag reducing agents (DRA). Surfactants, fibers and polymers are among the well-known additives which are used as a DRA. The mechanism of drag reduction depends on the form or type of DRA and thus the effect on drag varies with the choice of DRA. The present book analyzed the effect of anionic surfactants and suspended fibers on drag reduction based on solution concentration, combination of two different materials, fluid Reynolds number, pipe scales, surfactant molecular number and surfactant...



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