

Potential of Nanostructured Materials in Oil and Gas Industry

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ABSTRACT

In this paper, we show the potential of nanostructured materials in Petrobras. Some examples are the bend stiffeners for flexible risers made by polyurethane modified with carbon nanotubes (CNT), high resistance cement modified with CNT to use in the ultra deep oil wells, good performance epoxy resin (high tenacity and temperature resistance) after addition of CNT or graphene, transformer oil-based nanofluids, polymers nanocomposites with high thermal conductivity and nanocrystalline metallic coatings.