

Abstract Submitted
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Mössbauer study of corrosion and abrasion products in oil transporting pipes RAUL W. GOMEZ, JOSE LUIS PEREZ MAZARIEGO, VIVIANNE MARQUINA, MA. LUISA MARQUINA, ROSALIA RIDAURA, Facultad de Ciencias, UNAM. Mexico D.F. 04510, LORENZO MARTINEZ, ICF, UNAM, Cuernavaca, Mor. — It is known that one of the main technological problems in carbon steel oleoducts is the corrosion produced by different substances, such as water, carbon dioxide, sulfur, and microorganisms. In addition, if in such mixture there is sand, aggressive sludge can be form that abrasions material from the oleoduct. A room temperature Mössbauer study of corroded material taken from different sites of oleoducts is presented. Most of the Mössbauer spectra reveal the presence of nanoparticles, indicating that in these pipes the abrasion problem is severe. A preliminary identification of the oxidized samples suggests the presence of magnetite, and some Iron hydroxides. Further studies are in course in order to identify unambiguously the products present in the corroded materials.

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