

عنوان مقاله:

The Fractography of API 5LX70 Linepipe Steel Plates Following Conducting the Tensile Test

محل انتشار:

دهمین کنفرانس بین المللی مهندسی مواد و متالورژی (iMat2021) (سال: 1400)

تعداد صفحات اصل مقاله: 9

نویسندگان:

N. Amirjani - Graduate MSc, Department of Materials and Metallurgical Engineering, Amirkabir University of Technology

M. Ketabchi - Professor, Department of Materials and Metallurgical Engineering, Amirkabir University of Technology

M. Eskandari - Assistant Professor, Materials Science and Engineering Department, Shahid Chamran University of Ahvaz

Mohammad Hizombor - Production Manager, Metallurgy and Manufacturing Processes Organization, Khuzestan Oxin Steel Company

خلاصه مقاله:

Study of various inclusions following conducting the tensile test is the purpose of this paper. In this regard, four API 5LX70 linepipe steel plates were processed using different accelerated cooling rates and finish rolling temperatures of the thermo-mechanical controlled process. Tensile test and microstructure characterization were executed. The results show that subjecting plates to different schedules would fine the microstructure as well as promote the mechanical properties. Furthermore, fractography by scanning electron microscopy showed various-inclusion families of oxides, sulphide, and silicate. Identifying these inclusions is beneficial since by detecting their possible resources and then eliminating, the final properties will be enhanced.

کلمات کلیدی:

Thermo-mechanical controlled process, high-strength low-alloyed steel, fractography, inclusion, API 5LX70, pipeline

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