

## عنوان مقاله:

Non-Destructive Evaluation of Polyethylene Pipe Welds Using Infrared Imaging

## محل انتشار:

اولین کنفرانس لوله و صنایع وابسته (سال: 1386)

تعداد صفحات اصل مقاله: 7

## نویسنده:

## خلاصه مقاله:

Polyethylene pipes are important means of transferring gas, oil, water and other chemicals and fluids, therefore welding quality of polyethylene pipes are of great importance. In this paper the applications of polyethylene pipes and welding methods are explained. Different methods of typical weld testing are also discussed. Then infrared imaging is discussed and finally, four new effective methods for non-destructive evaluation (NDE) of the welds are proposed. In the proposed methods which are the main topic of investigation, infrared imaging is used as the basis of the NDE. The first method is based on infrared imaging as gas leak detectors. The second is the UIR method which is a combination of ultrasonic and infrared imaging. The third is the laser-infrared method. And finally the fourth method is the hot air-infrared imaging method which is most suitable once combined with one of the second two methods.

## کلمات کلیدی:

Polyethylene Pipe Welding, Non-Destructive Evaluation, Infrared

## لینک ثابت مقاله در پایگاه سیویلیکا:

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