*Environmental Engineering and Management Journal* *April 2019, Vol. 18, No. 4, 901-905*
*http://www.eemj.icpm.tuiasi.ro/; http://www.eemj.eu*

***"Gheorghe Asachi" Technical University of Iasi, Romania***


# INFLUENCE OF PYROPHORIC SULPHIDES OVER THE FLAMMABILITY PARAMETERS OF LIQUIDS

**Maria Prodan*, Emilian Ghicioi, Irina Nălboc, Andrei Szollosi-Moța, Sonia Suvar**

*National Institute for Mine Safety and Explosion Protection - INSEMEX Petroșani, 32-34G-ral Vasile Milea Street, Petroșani, Romania*

## Abstract

Fire and explosion prevention requires the knowledge of the explosive or flammability parameters of combustible gases and vapours that can be found in industrial and civil environments, as well as the influence of certain substances in the process on these parameters. In some cases, pyrophoric sulphides can be formed and it is supposed that they may influence the known flammability parameters of the substances used in various industrial processes.
In order to track the influence of iron sulphides on the flammability parameters of liquids, determinations of these parameters (flash point and auto-ignition temperature) were made for a series of flammable liquids that have been contaminated with various quantities of commercial iron sulphide.

*Key words:* explosions, fires, flammability, pyrophoric sulphides

*Received: September, 2018; Revised final: January, 2019; Accepted: April, 2019; Published in final edited form: April, 2019*

* Author to whom all correspondence should be addressed: e-mail: maria.prodan@insemex.ro; Phone: + 40 254541621; Fax: +40 254541622