## O 116. RECOVERY OF IRON FROM METALLURGIC WASTES

Fadim Yemiş[1], Yunus Karakış[1], Nilgün Yenil Harmancı[1*]

[1]*University of Celal Bayar, Faculty of Sciences and Arts, Department of Chemistry, 45030, Muradiye, Manisa, Turkey*

*E-mail: nilgun.yenil@cbu.edu.tr*

**ABSTRACT:** The iron and steel industry, an indicator of development and improvement, has become an integral part of modern society. In this context, the iron-steel sector is of strategic importance for many countries. Its product varieties increase even more in the iron-steel industry with changing consumer needs, developments in technology and competition. The iron, taken from the iron-steel industry, is an indispensable material that is quite hardness and durable. This product is used widely in many industrial areas such as civil, machine and automotive engineering. The amounts of iron ores decrease in the world by the day. Therefore, in the production of iron, scrap materials are used. A slag, a by-product formed during pyrometallurgical processes and deposited on the surface due to the difference in density, is a mixture of metal oxide and silicates. The scrap metal or metal-containing ores, lighter than metal, contain these metal oxides and silicates. Slag, which is very exposed in industry, is a waste. And, it pollutes the environment if not recovered. The amount of metallurgical waste reduces with the recovery of iron slag. By this way, it contributes to the economy. For this reason, this work aim is to recover iron from iron slag in its metallic form.

*Keywords: iron, steel, recovering process, pyrometallurgic waste*