



## Journal of Applicable Chemistry

2019, 8 (6): 2462-2466  
(International Peer Reviewed Journal)



### Recovery of Manganese from Ferromanganese Slag

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Accepted on 7<sup>th</sup> October, 2019

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#### ABSTRACT

Selective acid leaching of manganese from ferromanganese slag (Garividi, Vizianagram Dt.,) using hydrochloric and sulphuric acid media was attempted. Rate of leaching in both acids was found to be 1<sup>st</sup> order kinetics. Extraction of Mn (II) by Dibutyl phosphoric acid (HDBP) dissolved in xylene from both the acid media has been carried out. Effect of concentrations of metal and HDBP on the extraction has been studied. Attempts were also made to strip manganese from the organic phase with 1.0M H<sub>2</sub>SO<sub>4</sub>. The extracted species was also identified.

#### High Lights

- Acid leaching of manganese from ferromanganese slag has been carried out.
- Solvent extraction of manganese (II) by HDBP has been studied.
- The role of pH, acid, metal ion, HDBP etc., is essential to follow the process.
- Extraction mechanism has been discussed.

**Keywords:** Leaching, Ferromanganese slag, Extraction, Dibutyl phosphoric acid (HDBP).

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