

Role of Hydrometallurgy in Processing of Ores and Minerals & Recovering Metal Values from Wastes

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Abstract

In recent years, Hydrometallurgy because of its certain operational and economic advantages as well as comparatively environment friendliness, has assumed a leading role for processing ores and minerals and recovering metal values from wastes of metallurgical industries. In this paper, various hydrometallurgical processes to open up the ores and minerals, preparation of high pure salts of the desired metals and extraction of the metals have been described and discussed. Typical examples of some commercial hydrometallurgical processes for extracting the metals and treating industrial wastes to recover the metal values have been highlighted. Some R & D work carried out by the author and co-workers in the area with particular emphasis on metallurgical waste treatment have been briefly outlined. Role of Hydrometallurgy in preparation of Nano materials has been mentioned with some examples.