## Recovery and Recycling of Valuable Metals from Fine Industrial Waste Materials

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Recycling metals from fine industrial waste streams is important since natural resources could be conserved, as well as environmental problems due to the waste disposal could be alleviated. Metal producers and manufacturing facilities are generating off-gas, which contains a large amount of dust. Therefore, dust collection systems, such as baghouse and cyclones, are installed to control the emission of air pollutants. Dust, collected from various facilities, contained metal values; however, most fine wastes are currently landfilled due to the lack of an economically feasible metal recovery process. In this study, valuable metals from fine wastes were recovered by hydrometallurgical and pyrometallurgical processes from oil fly ash and aluminum smelter baghouse dust.

Keywords: Waste recycling, Oil fly ash, Aluminum dust, Extractive metallurgy