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GOLD ENRICHMENT AND RECOVERY FROM E-WASTE POWDERS

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In this study, hydrocyclone is used to sort electronic waste powders. After sorting, chemical solvent UW860 is utilized to extract gold from electronic waste powders. The effect of operating ways and conditions of hydrocyclone in gathering precious metal is discussed. The use of hydrocyclone can decrease a large amount of powders needed, processed and also lower the usage of chemical solvent to make the process cost of precious metal much cheaper. The experiment result represents that it can sort electronic powders with gold into 70% in underflow by using Type B05 hydrocyclone. The concentration ratio of gold is 1.4 times than prior art. The recovery rate of gold is 99%. On the other hand, the selectivity in underflow takes up 60% by using Type E hydrocyclone, i.e., the enrichment ratio of recycling gold is 1.6 times. In fact, considering the usage of chemical solvent and the costs of operation, it is more practical and valuable to use Type E hydrocyclone..

BIOGRAPHY

Wu JM has completed his PhD from National Taiwan University, Taiwan. He is the Professor of Tamkang University, Taiwan. He has over 50 publications that have been cited over 200 times and 10 patents.

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