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# WASTE RECYCLING AND REUSE

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## Gold recovery from e-resources

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Nowadays, the global electronic wastes have reached up to 50 million MT. It includes precious metals which are worth of over US 600 billion. Despite such a tempting business opportunity, loss of electronic wastes has not been recycled and reused properly every year. This work investigated the possibility of using a hydrocyclone to recover precious metals from electronic resources. Hydrocyclone is favored classifying equipment for solids separation. Its applications are in mineral processing and to a growing extent, in petrochemical engineering, environmental engineering, bioengineering, electrochemical engineering, etc. The weight percentage of e-resources powders is 5 wt%. Classifying these powders by a 3.5 cm-diameter hydrocyclone and overflow and underflow are obtained. A 230-mesh screen is used to screen underflow and separate it to up-tray and down-tray powders. After gold stripping from overflow, up-tray and down-tray e-resources powders by UW860 chemicals, gold recovery percentage are 0.01 wt%, 0.15 wt% and 0.45 wt%, respectively.

### Biography

Rome-Ming Wu has received PhD degree in Chemical Engineering awarded by National Taiwan University. He is presently serving in Tamkang University in Department of Chemical and Materials Engineering since 14 years. He has a patent of Golden Pan Machine, in Taiwan, America and China. He has also won Gold Medal of Taiwan International Invention Show and Silver Medal of Moscow International Salon of Inventions and Innovation Technologies.

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