

A Review on Sustainable Methods in Recovering Precious Metals from Waste Mobile Phones (Wmps)

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The modern lifestyle is resulting in a massive generation of e-waste. However, as per the UK parliament report, e-waste is hugely valuable, worth at least \$62.5 billion annually. Among the e-waste, waste mobile phones (WMP) lead the race due to their all-important usage. Mobile phones are ubiquitous, and there are more mobile phones than the human population. For the same reason, they are deemed as an environmental nuisance, the management of which seems to be an exciting and imperative issue. Waste mobile phones (WMPs) are great potential for recovering esteemed metals such as gold, silver and copper, and even rare earth metals such as indium. WMPs are rich in resources, possessing much higher metallic content than natural ores and recovering these metals is much more economical compared to industrial mining.

Furthermore, most of these metals have limited reserves, and as mobile phones' consumption is increasing, recycling these materials seems to be the only option. The WMPs also contain many hazardous metals such as lead, mercury, etc. Thus, the scientific community must explore sustainable methods for recovering these metals. This paper reviews several innovative and sustainable research studies in recovering precious metals from WMPs.

Biography

Dr. Mukesh Goel has done his M.Eng in Chemical Engineering from NUS Singapore, and PhD from IIT Delhi (a part of research was conducted in University Lyon1 and INSA Lyon France). Dr. Mukesh Goel joined the Department of Engineering and Mathematics, Sheffield Hallam