

FORMATIVE OF METAL CONTENTS IN ELECTRONIC WASTE MOBILE PHONE CIRCUIT BOARDS

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ABSTRACT

Advancement in electronic technology makes their life span shortened thus causes a huge number of electronic waste mobile phone circuit boards (WPCBs) to be produced, which presents the new global environmental challenges. Recycling of these electronic WPCBs is a positive step towards not only protect the environment but also for resource recovery. This work carried out for determining the highly valuable metal contents in electronic waste mobile phone circuit boards and finds a high-precision measurement method for the betterment of recycling technologies. HNO₃-HF-HClO₄ pretreatment digestion method and ICP-MS multi-analysis showed the highest copper proportion of about 83.31% in used mobile phone boards. Through the analysis of the precision data, it is verified that the method is reliable and has good reproducibility.

Keywords: Waste Mobile Phone Circuit Board (WPCBs); Digestion; Metal content