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## COPPER RECOVERY FROM REAL SAMPLES OF WPCBs BY ANODIC DISSOLUTION

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### Abstract

A new process for the recovery of copper from WPCBs was investigated in this paper. The copper content of the studied WPCBs ranges between 23–30 wt%. At the first stage of this work, mechanical processing was used to remove the electronic components (EC) from the WPCBs substrate. At the second stage, the WPCBs samples, without EC, were treated with concentrated H<sub>2</sub>SO<sub>4</sub> to remove the solder mask. In the final stage the WPCBs samples were processed in an undivided electrochemical cell in a galvanostatic mode. A stainless steel plate was used as cathode while the anode was a perforated Pb cage which contained the graphite granules and WPCBs. The anodic dissolution degree of the metals was 100 % with an energy consumption of 1.06 KWh/kg of copper deposit. The purity of the obtained cathodic deposit was about 98 %.

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