

仮想環境下における鉛はんだおよび鉛フリーはんだからの溶出挙動

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Elution Characteristics of Lead Solder and Lead-Free Solder under Pseudo-Environments

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Abstract

The elution characteristics of lead from the printed circuit boards in the MD players were investigated, and it was confirmed that the amount of lead eluted from the printed circuit board using $\text{Sn}_{96}\text{-Ag}_{2.5}\text{-Bi}_{1.0}\text{-Cu}_{0.5}$ solder was smaller than that from the printed circuit board using $\text{Sn}_{63}\text{-Pb}_{37}$ solder. The elution of elements (tin, bismuth, silver, copper and lead) from five kinds of lead-free solders and the lead solder were measured under various pseudo-environments (pure water, 3.5 wt% salt solution and pH 3 acid solution). These results indicated that the amount of each element eluted from several solders was especially large under the acid solution.

Key Words: Lead Solder, Lead-Free Solder, Elution, Lead, Pseudo-Environments