## **ABSTRACT**

Electroplated coatings in instrument making. Development of technological process of electroplated coating alloy tin-bismuth on printed circuit boards.

Ryzko O. - Kyiv: NTUU "KPI named after Igor Sikorsky ", ChTP, EC-31 Diploma project, 2017. Number of pages – 105, tables – 22, pictures – 8, literature – 16.

In the project developed a technological process of electroplated coating by alloy tin-bismuth of 12 microns thick on printed circuit boards with a productivity of 50000 pieces./year. Deposition of the copper is carried out from sulphate electrolyte at 20-25°C and cathodes current density of 1 A/dm². For putting electroplating selected the galvanic bath from polypropylene size  $1600 \times 710 \times 1000$  mm.

The project held constructive and technological calculations, developed the scheme of automatic regulation of process deposition alloy. Prime cost calculations are executed, it is made accounting of production and calculated technical and economic indicators.

The project has used wastewater treatment combined method, analyzed the harmful and dangerous production factors and proposed safety measures and safety.

Keywords: alloy tin-bismuth, sulphate electrolyte, galvanic baths from polypropylene, printing mounting, current density, sewage treatment.

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