

도금 및 CMP에 의한 Micro-Tip 제작 공정 연구

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A Study on Micro-Tip Fabrication by Plating and CMP

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Abstract : We investigate micro-tip properties as Ni-Co plating and CMP processes for MEMS probe card and units. The micro-tip are fabricated by using Ni-Co plating machine, lapping machine, and chemo-mechanical polisher. In order to get high conductive and reliable micro-tip, we control Co contents and thickness by CMP speed. We have found that about 20-25% of Co contents are required and have to lapping speed of 30 rpm. Also, we investigate photolithography and Ni-Co plating processes conditions for the one-step and the three-step micro-tips.

Key Words : Micro-Tip, MEMS, Probe Card, Ni-Co Plating, CMP