## 電気 Ni めっきにおける添加剤を用いた トレンチフィリングによる構造物の作製

岡田 考史\*, 岡本 尚樹\*, 齊藤 丈靖\*, 近藤 和夫\*

## Trenchfilling for Fabrication of Ni Structure by Electrodeposition Using Additives

Takafumi OKADA\*, Naoki OKAMOTO\*, Takeyasu SAITO\*, and Kazuo KONDO\*

## **Abstract**

Various metal molds are made by an electroforming process. We fabricated a Ni structure using the electroforming process, and evaluated the effects of adding various agents to the trench substrates. The trench substrate was made using a photolithography process. When electrodeposition is applied to the trench substrate, voids are formed in the trench. In this work, void free electrodeposition is achieved by adding certain agents. We investigated the mechanisms of these added agents by performing electrochemical measurements.

Key Words: Electrodeposition, Ni, Electroforming

<sup>\*</sup> 大阪府立大学工学研究科化学工学分野材料プロセス工学グループ (〒 599-8531 堺市中区学園町 1-1)

<sup>\*</sup> Mat. Proc. Lab. Ch. E. Osaka Prefecture University (1-1, Gakuen-cho, Naka-ku, Sakai 599-8531)