

## Microstructures of Si Surfaces Fabricated by Electrochemical Anodic Oxidation with Agarose Stamps

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**Abstract :** This paper investigates the fabrication of microstructures on Si surfaces by using electrochemical anodic oxidation with agarose stamps. The fabricating process is based on a selective anodic oxidation reaction that occurs in the contact area between a stamp and a Si substrate. The stamp which is soaked in electrolyte previously acts as a current flow channel. After forming the oxide patterns as an etching mask, a KOH aqueous is used for the wet etching of Si. A complicated microstructure array of 1 cm<sup>2</sup> was fabricated by the method with high accuracy.

**Keywords :** microstructures, anodic oxidation, silicon, agarose stamps

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