

## **Micro/Nano Hot Embossing of Glass Materials with Glassy Carbon Mold fabricated by FIB Etching**

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### **ABSTRACT**

Micro/Nano imprinting or hot embossing is a target of interest for industrial production of micro devices. In Fluidic MEMS (Micro Electromechanical Systems) applications, polymer materials have been employed for their low cost fabricate the economical products. However glasses are much more suitable for the higher temperature applications or under strong chemical environments. In Optical MEMS as well, glasses are good candidate materials for better optical properties. In this study, Micro/Nano hot embossing was employed for Pyrex glass molding and the test structures were successfully fabricated with good fidelity of 10x10x7um and 100nm line and space 300 nm

**Keywords:** Micro/Nano forming, Hot embossing, Nano imprinting, Focused Ion Beam, Glassy Carbon, Pyrex glass,