S & M 0737

Fabrication of a Biofilter Using Anodic Reaction for Filtering Blood

Duk-Soo Eun, Jong-Hyeon Jeong, Jang-Kyoo Shin and Jong-Hyun Lee*

Department of Electronics, Graduate School, Kyungpook National University, 1370 Sankyuk-Dong, Buk-Ku, Daegu 702-701, Republic of Korea

(Received July 30, 2008; accepted November 25, 2008)

Key words: biofilter, anodic reaction, micropore, PDMS

In this paper, we describe the fabrication of a biofilter using a porous layer formed by an anodic reaction of (110) silicon to increase the width of pores and decrease the width of the walls between pores. The filter was fabricated from micropores formed through post-treatment and membrane structure formation. The fabricated filter, combined with a polydimethylsiloxane (PDMS) module and a filter structure, can be loaded with a lab-on-a-chip for filtering blood.

*Corresponding author: e-mail: jhlee@ee.knu.ac.kr