ABSTRACT

Microneedle based vaccination is an emerging technology in modern era. These microneedles have potential as a patient-friendly substitute for conventional sustained release method. However, these microneedles have some limitations related to the difficulty separation into the skin. Silver microneedles offer more advantages due to their nontoxicity, tremendous biocompatibility and excellent biodegradability as compared to other solid microneedles. Silver microneedles were fabricated by etching process. Axial analysis and mechanical behavior were checked by ANSYS simulation. Characterization of fabricated microneedles was done by SEM. The results showed that this method can be efficiently used for the fabrication of polymer microneedles array.