

# Development of Scaffold for Tissue Engineering Applications using Imprinting

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**Abstract—** In this article we report the development of scaffold mimicking the cell surface topography. Using Soft lithography, in which polymer (triglyme, ethylene glycol dimethacrylate, methacrylic acid and IRGAcure 2022) is applied over the cultured cell and cured instantly using UV source. IRGAcure 2022 is a photoinitiator, which helps in solidification of the polymer when exposed to UV light source. Triglyme helps to increase the viscosity of the polymer. This method can be applied to all adherent cells. This scaffold consists of cell surface topography features. The developed scaffold can pave way in tissue engineering for various applications and cell research investigations.

**Keywords—***cell; morphology; feature; scaffold; extracellular matrix and tissue engineering.*