

The present invention relates to a microstructure including a biocompatible polymer or adhesive, and to a method for preparing the same. The present inventors achieved optimal tip angle and diameter ranges for skin permeation by optimizing height-to-width ratios for each microstructures by shape. In particular, when attached to the skin, B type and C type microstructures of the present invention can increase the penetration rate (60 % or higher) of structures and the rate of absorption into the skin of active components by minimizing penetration resistance that is due to skin elasticity. Moreover, D type microstructures of the present invention maximize the mechanical strength of structures by utilizing a triple structure, and thus easily permeate the skin. In the present invention, when a hexagonal arrangement technique is applied to a plurality of microstructures, there is an advantage in that uniform pressure may be transferred to the microstructures as a whole when attached to the skin.