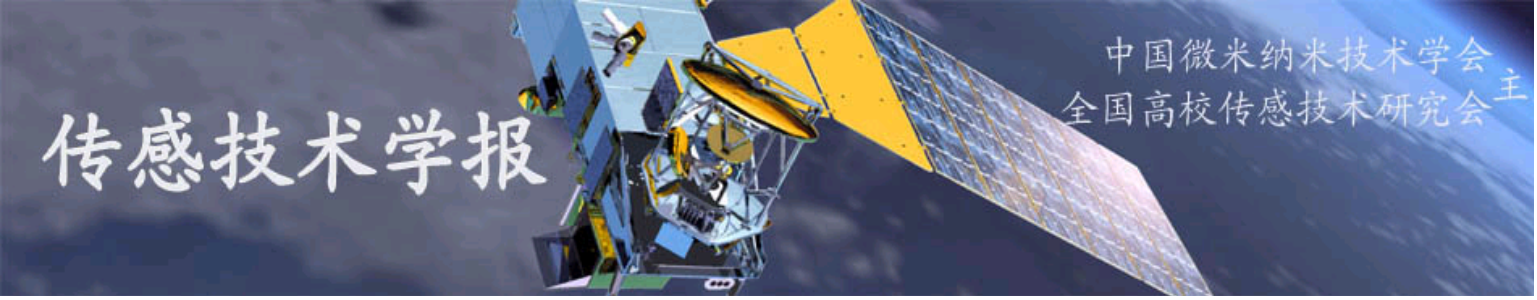

三维神经微电极阵列新制作技术研究

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摘　要：

尝试了一种低成本的三维微电极阵列微加工的新方法。玻璃划片形成的柱状阵列，经掩膜腐蚀后形成阳模板，再利用PDMS的微复制技术形成阴模板。利用阴模进行电镀，可以得到三维微电极阵列。制作的铜电极阵列高度约180㎜ m，为制作更长的神经微电极阵列打下了基础。

关键词：微加工，电镀，微电极阵列，PDMS(Polydimethylsiloxane，聚二甲基硅氧烷

Study on a new way to fabricate 3D neuron Microelectrode Array

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Abstract:

In this paper we proposed a novel technology for fabrication of 3D neuron microelectrode arrays at low cost. Diced glass column were masked and etched to be a male m
Through micro-replication technique, a female mould of Polydimethylsiloxane (PDMS) was obtained. A 3D microelectrode array was fabricated by electroplating utilizing
PDMS mould. The height of the copper electrode array was about 180㎜ m. This technology provided the basis for fabrication of longer neuron electrode array in the furt

Keywords: microfabrication，electroplating，microelectrode array，PDMS(Polydimethylsiloxane)

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