

## A MEIS Study on The Structural Property of Porous Silicon

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Much attention has been paid to anodised porous silicon (PS) since the recent discovery of the room-temperature photoluminescent properties of PS<sup>(1)</sup>.

In this study, the crystallinity and the strain of PS were observed through Medium Energy Ion Scattering Spectroscopy (MEIS) for the first time. It is found that the crystallinity remained in PS layer and the lattice of PS is tetragonally distorted. Especially the lattice of PS is laterally elongated while the interplanar distance of PS is identical to that of the substrate. The lateral (parallel to the substrate surface) strain is about 0.1 to 0.5%.

[Reference]

1. L. T. Canham, Appl. Phys. Lett. 57, 1046 (1990)

