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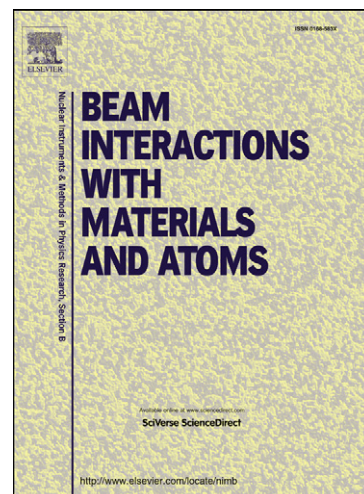
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A travelling wave model of ripple formation on ion bombarded surfaces

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Abstract

We present a mathematical model describing surface modification resulting from atomic motion after ion bombardment. The model considers only the defect production and recovery process induced by the local atom rearrangement and is essentially independent of surface topography changes formed by both sputtering and surface diffusion. A stable analytic, travelling wave solution is presented for a specific incident angle, which agrees with experimental observation excellently.

Keywords:

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