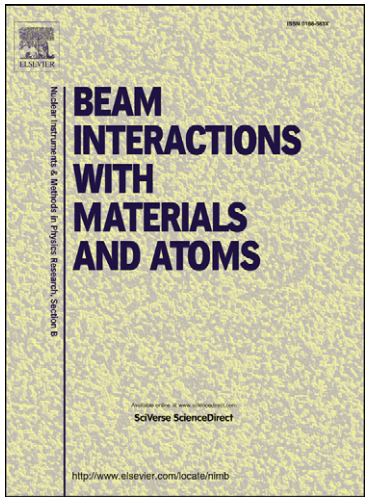

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Satoshi Numazawa, Roger Smith

PII: S0168-583X(12)00778-1
DOI: http://dx.doi.org/10.1016/j.nimb.2012.11.031
Reference: NIMB 59075

To appear in: *Nucl. Instr. and Meth. in Phys. Res. B*

Please cite this article as: S. Numazawa, R. Smith, A travelling wave model of ripple formation on ion bombarded surfaces, *Nucl. Instr. and Meth. in Phys. Res. B* (2013), doi: http://dx.doi.org/10.1016/j.nimb.2012.11.031

A travelling wave model of ripple formation on ion bombarded surfaces

Satoshi Numazawa* and Roger Smith†

Helmholtz-Zentrum Dresden Rossendorf (HZDR),

PO Box 510119, 01314 Dresden, Germany

(Dated: 4th January 2013)

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:

*E-mail: s.numazawa@hzdr.de

†permanent address: Department of Mathematical Sciences, Loughborough University, Loughborough LE11 3TU, UK