### CORRIGENDUM

Corrigendum: Monte Carlo simulations of nanoscale focused neon ion beam sputtering of copper: elucidating resolution limits and subsurface damage (2014 *Nanotechnology* 25 485704)

To cite this article: R Timilsina et al 2015 Nanotechnology 26 119501

View the article online for updates and enhancements.

## You may also like

- <u>Corrigendum: Spider silk reinforced by</u> <u>graphene or carbon nanotubes (2017 2D</u> <u>Mater. 4 031013)</u>
  Emiliano Lepore, Federico Bosia, Francesco Bonaccorso et al.
- <u>Erratum: Conformal Pressure and Fast-</u> <u>Charging Li-Ion Batteries [*J. Electrochem.*</u> <u>Soc.</u>, **169**, 040540 (2022)] Chuntian Cao, Hans-Georg Steinrück, Partha P. Paul et al.
- <u>Corrigendum for "Review—Latest Trends</u> and Advancement in Porous Carbon for Biowaste Organization and Utilization" <u>ECS J. Solid State Sci. Technol. 11</u> 011003 2022 Kunal Kulkarni, Utkarsh Chadha, Shreya Yadav et al.





DISCOVER how sustainability intersects with electrochemistry & solid state science research



This content was downloaded from IP address 18.223.172.252 on 29/04/2024 at 18:35

Nanotechnology 26 (2015) 119501 (2pp)

# Corrigendum: Monte Carlo simulations of nanoscale focused neon ion beam sputtering of copper: elucidating resolution limits and sub-surface damage (2014 *Nanotechnology* 25 485704)

# R Timilsina<sup>1</sup>, S Tan<sup>2</sup>, R Livengood<sup>2</sup> and P D Rack<sup>1,3</sup>

<sup>1</sup> The University of Tennessee Knoxville, TN 37996, USA

<sup>2</sup> Intel Corporation, Santa Clara, CA 95054, USA

<sup>3</sup> Center for Nanophase Materials Sciences, Oak Ridge National Laboratory, Oak Ridge, TN 37831, USA

E-mail: rtimilsi@utk.edu

Received 2 February 2015 Accepted for publication 2 February 2015 Published 25 February 2015

(Some figures may appear in colour only in the online journal)

The beam shapes in figures 4 and 10 of the article entitled 'Monte Carlo simulations of nanoscale focused neon ion beam sputtering of copper: elucidating resolution limits and sub-surface damage' [1] should be a summation of  $15 \times 15$  Gaussian beams of 1 nm FWHM instead of a single Gaussian beam of 15 nm FWHM as presented there. Therefore, it is corrected in this corrigendum with new figures. We would like to request the readers to see these new figures (figures 1 and 2 of this corrigendum instead of

figures 4 and 10 respectively of the article [1]). The analysis and text discussion of the article [1] are not affected by the errors.

#### Reference

 Timilsina R, Tan S, Livengood R H and Rack P D 2014 Nanotechnology 25 485704





**Figure 1.** Simulated via structures of Cu at the doses of (a)  $1.5 \times 1018$  ions cm<sup>-2</sup>, (b)  $3 \times 1018$  ions cm<sup>-2</sup> and (c)  $6 \times 1018$  ions cm<sup>-2</sup> and the beam energy of 20 keV. The color code: blue (substrate), red (sputtered), yellow (re-deposited) and cyan (sputtered but re-deposited) depict different species. The white dotted curves represent the summation of  $15 \times 15$  Gaussian beams (of 1 nm FWHM) in each plot.



**Figure 2.** Nuclear energy loss density at Cu target with 702 000 neon ions (a dose of  $3.12 \times 1017 \text{ Ne}^+ \text{ cm}^{-2}$ ) of 20 keV. The inner plot of (a) depicts the sputtering profile and figure 2(b) is a zoomed region of the rectangle shown in (a). The dark blue color of figure 2(b) represents nuclear energy loss of 1 keV nm<sup>3</sup> or less.