Correction to: Friction and Plasticity in Contacts Between Amorphous Solids

Binquan Luan¹ · Mark O. Robbins²

© Springer Science+Business Media, LLC, part of Springer Nature 2021, corrected publication 2021

Correction to: Tribology Letters (2021) 69:51
<https://doi.org/10.1007/s11249-021-01429-7>

The original version of this article unfortunately contained a mistake in the graphical abstract.

The correct version is given below.

The original article has been corrected.

The original article can be found online at <https://doi.org/10.1007/s11249-021-01429-7>.

✉ Binquan Luan
bluan@us.ibm.com

¹ Computational Biological Center, IBM Thomas J. Watson Research, Yorktown Heights, NY 10598, USA

² Department of Physics & Astronomy, Johns Hopkins University, Baltimore, MD 21218, USA

Graphical Abstract The origins of friction and energy dissipation at an atomic scale are not well understood. Prof. Robbins designed large-scale, molecular-dynamics simulations to investigate interfacial friction between amorphous solids. Importantly, the friction force was found to be proportional to the number of plastic-deformation events, i.e. the energy is dissipated when overcoming an energy barrier between two plastically deformed atomic structures. Some original sketches can be seen here, taken directly from his notes, showing his visions for the project

F vs. plasticity
 local stirring $\rightarrow$ go backwards and forwards
 Keep seeing new surface
 Depth profile of plasticity $\rightarrow$ only over 10^{-6} velocity
 Amount of plasticity $\sim$ same on both surfaces
 count events
 count events
 Just allows locking
 Not "wear"
 $\rightarrow$ Diffusion distance
 $\rightarrow$ do vs. depth
 z
 #

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.