

Accepted Manuscript

Impact-induced concerted mass transport on W surfaces by a voidion mechanism

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PII: S0039-6028(17)30504-6
DOI: [10.1016/j.susc.2017.11.002](https://doi.org/10.1016/j.susc.2017.11.002)
Reference: SUSC 21136



To appear in: *Surface Science*

Received date: 12 July 2017
Revised date: 4 November 2017
Accepted date: 5 November 2017

Please cite this article as: T.I. Mazilova , E.V. Sadanov , V.N. Voyerodin , V.A. Ksenofontov ,
I.M. Mikhailovskij , Impact-induced concerted mass transport on W surfaces by a voidion mechanism,
Surface Science (2017), doi: [10.1016/j.susc.2017.11.002](https://doi.org/10.1016/j.susc.2017.11.002)

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Highlights

- Radiation induced formation of the $\langle 110 \rangle$ and $\langle 100 \rangle$ linear vacancy chains on W surface.
- An anomalous inward relaxation of the near-neighbor atoms of the surface vacancy chain.
- A novel surface mass transport mechanism: the formation and motion of voidions.
- Successive collective translations of adjacent voidions and surface gliding motion.

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