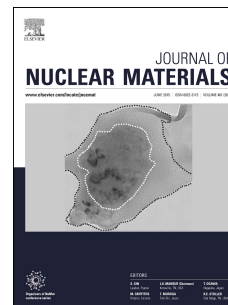


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# Helium bubbles aggravated defects production in self-irradiated copper

FengChao Wu<sup>1</sup>, YinBo Zhu<sup>1</sup>, Qiang Wu<sup>2</sup>, XinZhu Li<sup>2</sup>, Pei Wang<sup>3</sup>,  
HengAn Wu<sup>1,\*</sup>

\* Correspondence and requests for materials should be addressed to H.A. Wu ([wuha@ustc.edu.cn](mailto:wuha@ustc.edu.cn)).

<sup>1</sup>CAS Key Laboratory of Mechanical Behavior and Design of Materials, Department of Modern Mechanics, University of Science and Technology of China, Hefei, Anhui 230027, China

<sup>2</sup>National Key Laboratory of Shock Wave and Detonation Physics, Institute of Fluid Physics, China Academy of Engineering Physics, Mianyang, Sichuan 621900, China

<sup>3</sup>Laboratory of Computational Physics, Institute of Applied Physics and Computational Mathematics, Beijing 100094, China

## ABSTRACT

Under the environment of high radiation, materials used in fission and fusion reactors will internally accumulate numerous lattice defects and bubbles. With extensive studies focused on bubble resolution under irradiation, the mutually effects between helium bubbles and displacement cascades in irradiated materials remain unaddressed. Therefore, the defects production and microstructure evolution under self-irradiation events in vicinity of helium bubbles are investigated by performing large scale molecular dynamics simulations in single-crystal copper. When subjected to displacement cascades, distinguished bubble resolution categories dependent on

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