

## Accepted Manuscript

### Article

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PII: S2095-9273(18)30048-3  
DOI: <https://doi.org/10.1016/j.scib.2018.01.022>  
Reference: SCIB 327

To appear in: *Science Bulletin*

Received Date: 28 October 2017  
Revised Date: 16 December 2017  
Accepted Date: 3 January 2018

Please cite this article as: J. He, Q. Wang, H. Zhang, L. Dai, T. Mukai, Y. Wu, X. Liu, H. Wang, T-G. Nieh, Z. Lu, Dynamic deformation behavior of a face-centered cubic FeCoNiCrMn high-entropy alloy, *Science Bulletin* (2018), doi: <https://doi.org/10.1016/j.scib.2018.01.022>

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### Abstract

In this study, mechanical tests were conducted on a face-centered cubic FeCoNiCrMn high-entropy alloy, both in tension and compression, in a wide range of strain rates ( $10^{-4}$ - $10^4$  s<sup>-1</sup>) to systematically investigate its dynamic response and underlying deformation mechanism. Materials with different grain sizes were tested to understand the effect of grain size, thus grain boundary volume, on the mechanical properties. Microstructures of various samples both before and after deformation were examined using electron backscatter diffraction and transmission electron microscopy. The dislocation structure as well as deformation-induced twins were analyzed and

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