

Emergent Ferromagnetism: Direct Demonstration of the Emergent Magnetism Resulting from the Multivalence Mn in a LaMnO₃ Epitaxial Thin Film System (Adv. Electron. Mater. 6/2018)

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Link to article, DOI:
[10.1002/aelm.201870030](https://doi.org/10.1002/aelm.201870030)

Publication date:
2018

Document Version
Publisher's PDF, also known as Version of record

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Citation (APA):
Niu, W., Liu, W., Gu, M., Chen, Y., Zhang, X., Zhang, M., ... Zhang, R. (2018). Emergent Ferromagnetism: Direct Demonstration of the Emergent Magnetism Resulting from the Multivalence Mn in a LaMnO₃ Epitaxial Thin Film System (Adv. Electron. Mater. 6/2018) Wiley-VCH. DOI: 10.1002/aelm.201870030

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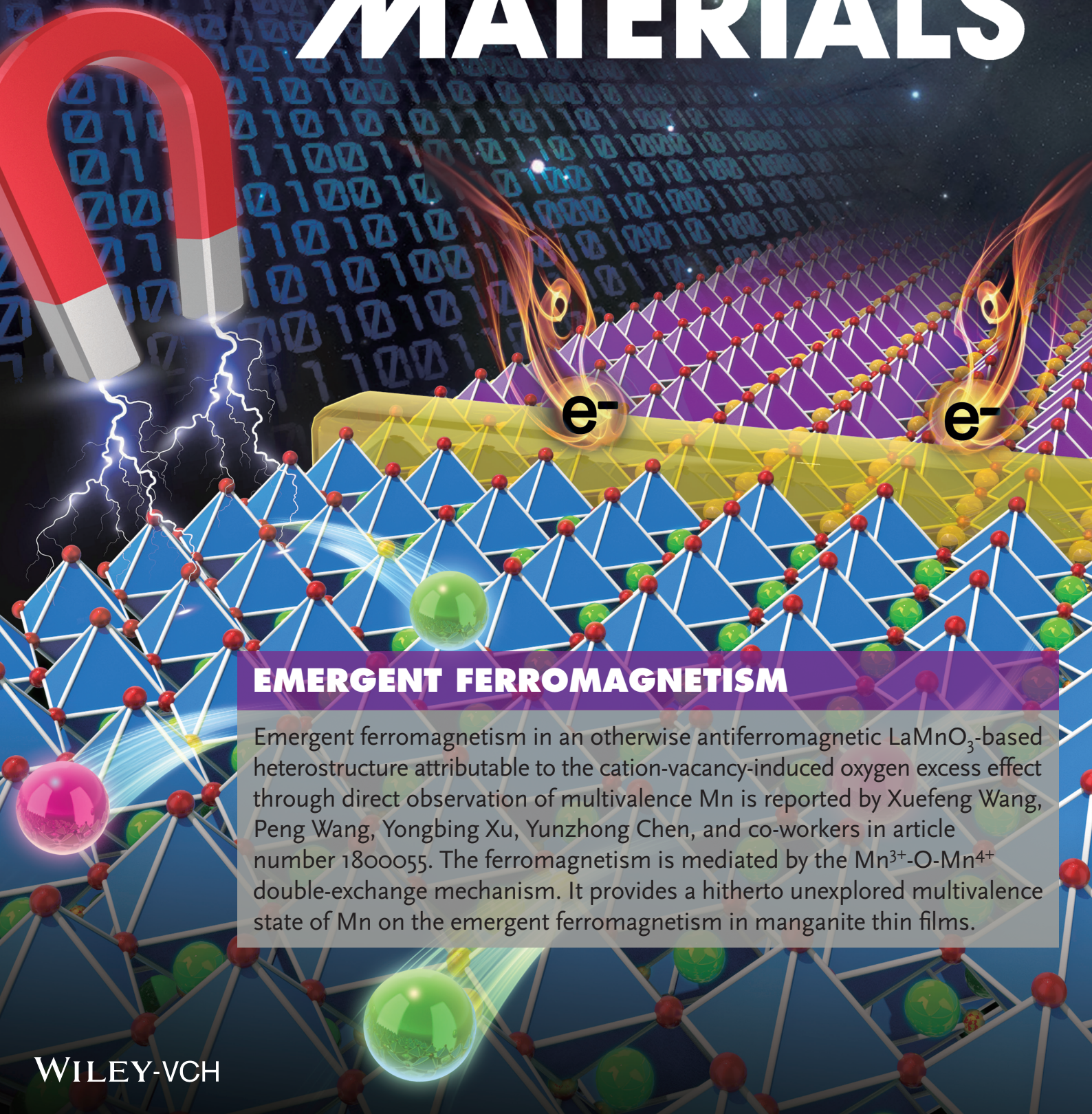
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ADVANCED ELECTRONIC MATERIALS



EMERGENT FERROMAGNETISM

Emergent ferromagnetism in an otherwise antiferromagnetic LaMnO_3 -based heterostructure attributable to the cation-vacancy-induced oxygen excess effect through direct observation of multivalence Mn is reported by Xuefeng Wang, Peng Wang, Yongbing Xu, Yunzhong Chen, and co-workers in article number 1800055. The ferromagnetism is mediated by the $\text{Mn}^{3+}\text{-O-Mn}^{4+}$ double-exchange mechanism. It provides a hitherto unexplored multivalence state of Mn on the emergent ferromagnetism in manganite thin films.