

RESEARCH PUBLICATIONS

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Papers in Refereed Journals

1. **K. Gopinadhan**, S. Hu, A. Esfandiari, M. Lozada-Hidalgo, F. C. Wang, Q. Yang, A. Tyurnina, A. Keerthi, B. Radha & A. K. Geim, *Complete steric exclusion of ions and proton transport through confined monolayer water*, **Science** **363**,145 (2019).
2. S. Hu, **K. Gopinadhan**, A. Rakowski, M. Neek-Amal, T. Heine, I. V. Grigorieva, S. J. Haigh, F. M. Peeters, A. K. Geim & M. Lozada-Hidalgo, *Transport of hydrogen isotopes through interlayer spacing in van der Waals crystals*, **Nature Nanotechnology** (2018) doi:10.1038/s41565-018-0088-0.
3. A. Esfandiari, B. Radha, F. C. Wang, Q. Yang, S. Hu, S. Garaj, R. R. Nair, A. K. Geim*, **K. Gopinadhan*** (*corresponding author), *Size effect in ion transport through angstrom-scale slits*, **Science** **358**, 511(2017).
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5. B. Radha, A. Esfandiari, F. C. Wang, A. P. Rooney, **K. Gopinadhan**, A. Keerthi, A. Mishchenko, A. Janardanan, P. Blake, L. Fumagalli, M. Lozada-Hidalgo, S. J. Haigh, S. Garaj, I. V. Grigorieva, H. A. Wu, A. K. Geim, *Molecular transport through capillaries made with atomic-scale precision*, **Nature** **538**, 222-225 (2016).
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7. K. Narayanapillai, G. Go, R. Ramaswamy, **K. Gopinadhan**, D. Go, H.-W. Lee, T. Venkatesan, K.-J. Lee, H. Yang, *Interfacial Rashba magnetoresistance of the two-dimensional electron gas at the LaAlO₃/SrTiO₃ interface*, **Phys. Rev. B** **96**, 064401 (2017).
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9. W. M. Lu, Surajit Saha, X. Renshaw Wang, Zhiqi Liu, **Kalon Gopinadhan**, A. Annadi, S. W. Zeng, Z. Huang, B. C. Cao, C. X. Cong, Ting Yu, M. Venkatesan, Michael Coey, T. Venkatesan and Ariando, *Long-range magnetic coupling across a polar insulating layer*, **Nature Communications** **7**, 11015 (2016).
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11. Zhi-Peng Ling, Soumya Sarkar, Sinu Mathew, Jun-Tao Zhu, **K. Gopinadhan**, T. Venkatesan and Kah-Wee Ang, *Black Phosphorus transistors with near band edge contact Schottky barrier*, **Sci. Rep.** **5**, 18000 (2015).
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14. **Kalon Gopinadhan** (*corresponding author), A. Annadi, Y. Kim, A. Srivastava, B. Kumar, J. S. Chen, Ariando and **T. Venkatesan***, *Gate tunable in- and out-of-plane spin-orbit coupling and anisotropic spin splitting at LaAlO₃/SrTiO₃ (110) interface*, **Adv. Electron. Mater.** **1**, 1500114 (2015).
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- and T. Venkatesan*, *Effect of Nb and Ta substitution on donor electron transport and photo-excited carrier dynamics in anatase TiO₂*, *J. Mater. Chem. C* **3**, 6329 (2015).
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 19. K. Narayanapillai, **K. Gopinadhan**, Q. Xuepeng, A. Annadi, Ariando, T. Venkatesan, and H. Yang, *Current-driven spin orbit field in LaAlO₃/SrTiO₃ heterostructures*, *Appl. Phys. Lett.* **105**, 162405 (2014).
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1. **Kalon Gopinadhan**, Y. J. Shin, Rashid Jalil, T. Venkatesan, A. K. Geim, A. H. Castro Neto and H. Yang, *Extremely sensitive magnetoresistance sensors using few-layer graphene/boron-nitride*, **IEEE magnetic Conference (INTERMAG), 2017**.
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5. Jeremy Levy, Mengchen Huang, Guanglei Cheng, Patrick Irvin, Anil Annadi, **Kalon Gopinadhan**, A Ariando, T Venkatesan, Q Zhang, Bo Gu, Seiji Yunoki, Sadamichi Maekawa, *Anisotropic superconductivity of nanowires at LaAlO₃/SrTiO₃(110) heterointerface*, **APS Meeting Abstracts** (March 2014 and March 2015).
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