

Publications

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Highlights:

Particle-hole symmetry protects spin-valley blockade in graphene quantum dots, **Nature** in press (2023)

Phonon-mediated room-temperature quantum Hall transport in graphene, **Nature Communications** 14, 318 (2023)

Putting high-index Cu on the map for high-yield, dry-transferred CVD graphene, **ACS Nano** 17, 1229 (2023)

Experimental observation of ABCB stacked tetralayer graphene, **ACS Nano** 16, 16617 (2022)

Spin relaxation in a single-electron graphene quantum dot, **Nature Communications** 13, 3637 (2022)

CVD bilayer graphene spin valves with 26 μm spin diffusion length at room temperature, **Nano Letters** 22, 4949 (2022)

2D Materials for Future Heterogeneous Electronics, **Nature Communications** 13, 1392 (2022)

Graphene whisperitronics: transducing whispering gallery modes into electronic transport, **Nano Letters** 22, 128 (2022)

Probing two-electron multiplets in bilayer graphene quantum dots, **Phys. Rev. Lett.** 127, 256802 (2021)

Spin-valley coupling in single-electron bilayer graphene quantum dots, **Nature Communications** 12, 5250 (2021)

Metavalent bonding in crystalline solids: how does it collapse? **Advanced Materials** 33, 2102356 (2021)

Upstream modes and antidots poison graphene quantum Hall effect, **Nature Communications** 12, 4265 (2021)

Hot-Carrier Cooling in High-Quality Graphene is Intrinsically Limited by Optical Phonons, **ACS Nano** 15, 11285 (2021)

Electrical Control over Phonon Polarization in Strained Graphene, **Nano Letters** 21, 2898 (2021)

Electron-hole crossover in gate-controlled bilayer graphene quantum dots, **Nano Letters** 20, 7709 (2020)

Observation of the Spin-Orbit Gap in BLG by One-Dimensional Ballistic Transport **Phys. Rev. Lett.** 124, 177701 (2020)

Unveiling valley lifetimes of free charge carriers in monolayer WSe_2 , **Nano Letters** 20, 3147 (2020)

Single-electron double quantum dots in bilayer graphene, **Nano Letters** 20, 2005 (2020)

In the Classroom - A lab in the pocket **Nature Reviews Materials** 5, 169-170 (2020)

Spin States Protected from Intrinsic El-Ph-Coupling Reaching 100 ns Lifetime in MoSe_2 , **Nano Letters** 19, 4083 (2019)

A corner reflector of graphene Dirac fermions as a phonon-scattering sensor, **Nature Communications** 10, 2428 (2019)

Detecting Ultrasound Vibrations by Graphene Resonators, **Nano Letters** 18, 5132 (2018)

Gate-defined electron-hole double dots in bilayer graphene, **Nano Letters** 18, 4785 (2018)

Impact of Many-Body Effects on Landau Levels in Graphene, **Phys. Rev. Lett.** 120, 187701 (2018)

Tailoring mechanically-tunable strain fields in graphene, **Nano Letters** 18, 1707 (2018)

Out-of-plane heat transfer in vdW stacks through el-hyperbolic phonon coupling, **Nature Nanotechnology** 13, 41 (2018)

High quality factor graphene-based 2D heterostructure mechanical resonator, **Nano Letters** 17, 5950 (2017)

A two-dimensional Dirac fermion microscope, **Nature Communications** 8, 15783 (2017)

Spin lifetimes exceeding 12 nanoseconds in graphene non-local spin valve devices, **Nano Letters** 16, 3533 (2016)

Size quantization of Dirac fermions in graphene constrictions, **Nature Communications** 7, 11528 (2016)

Ballistic transport exceeding 28 μm in CVD grown graphene, **Nano Letters** 16, 1387 (2016)

Raman spectroscopy as probe of nanometer-scale strain variations in graphene, **Nature Communications** 6, 8429 (2015)

Ultrahigh-mobility graphene devices from chemical vapor deposition on reusable copper, **Science Adv.** 1, e1500222 (2015)

Switchable Coupling of Vibrations to Two-Electron Carbon-Nanotube Quantum Dot States, **Nano Letters** 15, 4417 (2015)

Low B Field Magneto-Phonon Resonances in Single-Layer and Bilayer Graphene, **Nano Letters** 15, 1547 (2015)

Random strain fluctuations as disorder source for high-quality on-substrate graphene, **Phys. Rev. X** 4, 041019 (2014)

Nanosecond spin lifetimes in single- and few-layer graphene-hBN heterostructures at RT, **Nano Letters** 14, 6050 (2014)

Probing relaxation times in graphene quantum dots, **Nature Communications** 4, 1753 (2013)

Electronic excited states in bilayer graphene double quantum dots, **Nano Letters** 11, 3571 (2011)

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Graphene single-electron transistors, **Materials Today** 13, 44 (2010)

Electron-Hole Crossover in Graphene Quantum Dots, **Phys. Rev. Lett.** 103, 046810 (2009)

Energy gaps in etched graphene nanoribbons, **Phys. Rev. Lett.** 102, 056403 (2009)

Franck-Condon blockade in suspended carbon nanotube quantum dots, **Nature Physics** 5, 327 (2009)

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