

# A Zettl

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/11809901/publications.pdf>

Version: 2024-02-01

133  
papers

34,747  
citations

12330

69  
h-index

18647

119  
g-index

134  
all docs

134  
docs citations

134  
times ranked

28795  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Boron Nitride Nanotubes. Science, 1995, 269, 966-967.  | 12.6 | 2,881     |
| 2  | Extreme Oxygen Sensitivity of Electronic Properties of Carbon Nanotubes. Science, 2000, 287, 1801-1804.  | 12.6 | 2,777     |
| 3  | High-performance transition metal-doped Pt <sub>3</sub> Ni octahedra for oxygen reduction reaction. Science, 2015, 348, 1230-1234.   | 12.6 | 1,623     |
| 4  | Single-Electron Transport in Ropes of Carbon Nanotubes. Science, 1997, 275, 1922-1925.   | 12.6 | 1,278     |
| 5  | Low-Friction Nanoscale Linear Bearing Realized from Multiwall Carbon Nanotubes. Science, 2000, 289, 602-604.   | 12.6 | 1,206     |
| 6  | Graphene at the Edge: Stability and Dynamics. Science, 2009, 323, 1705-1708.   | 12.6 | 1,153     |
| 7  | Crossed Nanotube Junctions. Science, 2000, 288, 494-497.   | 12.6 | 1,135     |
| 8  | Rotational actuators based on carbon nanotubes. Nature, 2003, 424, 408-410.  | 27.8 | 1,098     |
| 9  | Direct Imaging of Lattice Atoms and Topological Defects in Graphene Membranes. Nano Letters, 2008, 8, 3582-3586.   | 9.1  | 1,090     |
| 10 | Solid-State Thermal Rectifier. Science, 2006, 314, 1121-1124.  | 12.6 | 1,043     |
| 11 | Thermal conductivity of single-walled carbon nanotubes. Physical Review B, 1999, 59, R2514-R2516.  | 3.2  | 1,042     |
| 12 | Direct mechanical measurement of the tensile strength and elastic modulus of multiwalled carbon nanotubes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 334, 173-178. | 5.6  | 951       |
| 13 | An atomic-resolution nanomechanical mass sensor. Nature Nanotechnology, 2008, 3, 533-537.  | 31.5 | 944       |
| 14 | The two-dimensional phase of boron nitride: Few-atomic-layer sheets and suspended membranes. Applied Physics Letters, 2008, 92, .  | 3.3  | 895       |
| 15 | Nanotube Nanodevice. Science, 1997, 278, 100-102.  | 12.6 | 869       |
| 16 | Grain Boundary Mapping in Polycrystalline Graphene. ACS Nano, 2011, 5, 2142-2146.  | 14.6 | 566       |
| 17 | Scanned Probe Microscopy of Electronic Transport in Carbon Nanotubes. Physical Review Letters, 2000, 84, 6082-6085.  | 7.8  | 547       |
| 18 | Measurement of the elastic modulus of a multi-wall boron nitride nanotube. Solid State Communications, 1998, 105, 297-300.   | 1.9  | 546       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | On the roughness of single- and bi-layer graphene membranes. Solid State Communications, 2007, 143, 101-109.                            | 1.9  | 530       |
| 20 | Imaging and dynamics of light atoms and molecules on graphene. Nature, 2008, 454, 319-322.  | 27.8 | 475       |
| 21 | Fully collapsed carbon nanotubes. Nature, 1995, 377, 135-138.   | 27.8 | 466       |
| 22 | Atomically thin hexagonal boron nitride probed by ultrahigh-resolution transmission electron microscopy. Physical Review B, 2009, 80, . | 3.2  | 456       |
| 23 | Breakdown of Fourier's Law in Nanotube Thermal Conductors. Physical Review Letters, 2008, 101, 075903.                                  | 7.8  | 425       |
| 24 | C36, a new carbon solid. Nature, 1998, 393, 771-774.  | 27.8 | 418       |
| 25 | Synthesis of B <sub>x</sub> C <sub>y</sub> N <sub>z</sub> nanotubes. Physical Review B, 1995, 51, 11229-11232.                          | 3.2  | 413       |
| 26 | Nanotube Radio. Nano Letters, 2007, 7, 3508-3511.   | 9.1  | 366       |
| 27 | A simple and robust electron beam source from carbon nanotubes. Applied Physics Letters, 1996, 69, 1969-1971.                           | 3.3  | 358       |
| 28 | Microscopic determination of the interlayer binding energy in graphite. Chemical Physics Letters, 1998, 286, 490-496.                   | 2.6  | 358       |
| 29 | Isotope Effect on the Thermal Conductivity of Boron Nitride Nanotubes. Physical Review Letters, 2006, 97, 085901.                       | 7.8  | 349       |
| 30 | Boron nitride substrates for high mobility chemical vapor deposited graphene. Applied Physics Letters, 2011, 98, .                      | 3.3  | 339       |
| 31 | A direct transfer of layer-area graphene. Applied Physics Letters, 2010, 96, .  | 3.3  | 335       |
| 32 | Coating Single-Walled Carbon Nanotubes with Tin Oxide. Nano Letters, 2003, 3, 681-683.  | 9.1  | 325       |
| 33 | Ultrahigh Frequency Nanotube Resonators. Physical Review Letters, 2006, 97, 087203.   | 7.8  | 298       |
| 34 | Carbon nanotubes as nanoscale mass conveyors. Nature, 2004, 428, 924-927.   | 27.8 | 291       |
| 35 | Photoinduced doping in heterostructures of graphene and boron nitride. Nature Nanotechnology, 2014, 9, 348-352.                         | 31.5 | 287       |
| 36 | Multiply folded graphene. Physical Review B, 2011, 83, .  | 3.2  | 269       |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 37 | Thermoelectric Power of Single-Walled Carbon Nanotubes. <i>Physical Review Letters</i> , 1998, 80, 1042-1045.                       | 7.8  | 262       |
| 38 | Hydrocarbon lithography on graphene membranes. <i>Applied Physics Letters</i> , 2008, 92, .   | 3.3  | 252       |
| 39 | Measurement of the intrinsic strength of crystalline and polycrystalline graphene. <i>Nature Communications</i> , 2013, 4, .        | 12.8 | 246       |
| 40 | Mass-production of boron nitride double-wall nanotubes and nanococoons. <i>Chemical Physics Letters</i> , 2000, 316, 211-216.       | 2.6  | 241       |
| 41 | 3D structure of individual nanocrystals in solution by electron microscopy. <i>Science</i> , 2015, 349, 290-295.                    | 12.6 | 238       |
| 42 | Interlayer Forces and Ultralow Sliding Friction in Multiwalled Carbon Nanotubes. <i>Physical Review Letters</i> , 2006, 97, 025501. | 7.8  | 231       |
| 43 | Is the Intrinsic Thermoelectric Power of Carbon Nanotubes Positive?. <i>Physical Review Letters</i> , 2000, 85, 4361-4364.          | 7.8  | 222       |
| 44 | 1/f noise in carbon nanotubes. <i>Applied Physics Letters</i> , 2000, 76, 894-896.  | 3.3  | 213       |
| 45 | Ripping Graphene: Preferred Directions. <i>Nano Letters</i> , 2012, 12, 293-297.  | 9.1  | 200       |
| 46 | A simple method for the continuous production of carbon nanotubes. <i>Chemical Physics Letters</i> , 2000, 319, 457-459.            | 2.6  | 195       |
| 47 | Raman Spectroscopy and Time-Resolved Photoluminescence of BN and BxCyNz Nanotubes. <i>Nano Letters</i> , 2004, 4, 647-650.          | 9.1  | 194       |
| 48 | Transformation of BxCyNz nanotubes to pure BN nanotubes. <i>Applied Physics Letters</i> , 2002, 81, 1110-1112.                      | 3.3  | 179       |
| 49 | Iodine intercalation of a high-temperature superconducting oxide. <i>Nature</i> , 1990, 348, 145-147.                               | 27.8 | 175       |
| 50 | Peeling and sharpening multiwall nanotubes. <i>Nature</i> , 2000, 406, 586-586.   | 27.8 | 164       |
| 51 | Shrinking a Carbon Nanotube. <i>Nano Letters</i> , 2006, 6, 2718-2722.  | 9.1  | 149       |
| 52 | Anisotropic electron-beam damage and the collapse of carbon nanotubes. <i>Physical Review B</i> , 1996, 54, 5927-5931.              | 3.2  | 147       |
| 53 | Precision cutting of nanotubes with a low-energy electron beam. <i>Applied Physics Letters</i> , 2005, 86, 053109.                  | 3.3  | 143       |
| 54 | Amine-functionalized boron nitride nanotubes. <i>Solid State Communications</i> , 2007, 142, 643-646.                               | 1.9  | 139       |

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 55 | Thermal conductivity of Bâ€“Câ€“N and BN nanotubes. Applied Physics Letters, 2005, 86, 173102.   | 3.3  | 117       |
| 56 | Controlled growth of a line defect in graphene and implications for gate-tunable valley filtering. Physical Review B, 2014, 89, .  | 3.2  | 117       |
| 57 | Atomically perfect torn graphene edges and their reversible reconstruction. Nature Communications, 2013, 4, 2723.  | 12.8 | 110       |
| 58 | Transfer-Free Batch Fabrication of Large-Area Suspended Graphene Membranes. ACS Nano, 2010, 4, 4762-4768.  | 14.6 | 103       |
| 59 | Localization and Nonlinear Resistance in Telescopically Extended Nanotubes. Physical Review Letters, 2004, 93, 086801.   | 7.8  | 100       |
| 60 | Nanotube Phonon Waveguide. Physical Review Letters, 2007, 99, 045901.  | 7.8  | 99        |
| 61 | Development of a Nanoindenter for In Situ Transmission Electron Microscopy. Microscopy and Microanalysis, 2001, 7, 507-517.  | 0.4  | 97        |
| 62 | Activated Boron Nitride Derived from Activated Carbon. Nano Letters, 2004, 4, 173-176.   | 9.1  | 96        |
| 63 | Length control and sharpening of atomic force microscope carbon nanotube tips assisted by an electron beam. Nanotechnology, 2005, 16, 2493-2496.                           | 2.6  | 86        |
| 64 | Highâ€“temperature stability of suspended singleâ€“layer graphene. Physica Status Solidi - Rapid Research Letters, 2010, 4, 302-304.                                       | 2.4  | 86        |
| 65 | Tunable Nanoresonators Constructed from Telescoping Nanotubes. Physical Review Letters, 2006, 96, 215503.  | 7.8  | 84        |
| 66 | Identifying Defects in Nanoscale Materials. Physical Review Letters, 2004, 93, 196803.   | 7.8  | 78        |
| 67 | Encapsulation of One-Dimensional Potassium Halide Crystals within BN Nanotubes. Nano Letters, 2004, 4, 1355-1357.  | 9.1  | 78        |
| 68 | Three-dimensional fluctuation conductivity in superconducting single crystal K3C60 and Rb3C60. Nature, 1993, 361, 54-56.   | 27.8 | 73        |
| 69 | Structure of boron nitride nanotubules. Applied Physics Letters, 2001, 78, 2772-2774.  | 3.3  | 71        |
| 70 | GaN nanorods coated with pure BN. Applied Physics Letters, 2002, 81, 5051-5053.  | 3.3  | 65        |
| 71 | Nanocrystal-Powered Nanomotor. Nano Letters, 2005, 5, 1730-1733.   | 9.1  | 65        |
| 72 | Probing the Out-of-Plane Distortion of Single Point Defects in Atomically Thin Hexagonal Boron Nitride at the Picometer Scale. Physical Review Letters, 2011, 106, 126102. | 7.8  | 62        |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 73 | Charge-Carrier Screening in Single-Layer Graphene. <i>Physical Review Letters</i> , 2013, 110, 146802.  | 7.8  | 58        |
| 74 | Nanoscale electronic devices on carbon nanotubes. <i>Nanotechnology</i> , 1998, 9, 153-157.   | 2.6  | 57        |
| 75 | Optical measurements of the superconducting gap in single-crystal K3C60 and Rb3C60. <i>Nature</i> , 1994, 369, 541-543.   | 27.8 | 54        |
| 76 | Soldering to a single atomic layer. <i>Applied Physics Letters</i> , 2007, 91, .  | 3.3  | 52        |
| 77 | Buckling and kinking force measurements on individual multiwalled carbon nanotubes. <i>Physical Review B</i> , 2007, 76, .  | 3.2  | 52        |
| 78 | Imaging the life story of nanotube devices. <i>Applied Physics Letters</i> , 2005, 87, 083103.  | 3.3  | 50        |
| 79 | Nonlinear transport and localization in single-walled carbon nanotubes. <i>Synthetic Metals</i> , 1999, 103, 2529-2532.   | 3.9  | 49        |
| 80 | Localization in single-walled carbon nanotubes. <i>Solid State Communications</i> , 1998, 109, 105-109.   | 1.9  | 46        |
| 81 | Instability of two-dimensional graphene: Breaking $\pi$ bands with soft x rays. <i>Physical Review B</i> , 2009, 80, .  | 3.2  | 44        |
| 82 | Nanomechanical radio transmitter. <i>Physica Status Solidi (B): Basic Research</i> , 2008, 245, 2323-2325.  | 1.5  | 43        |
| 83 | Electron diffraction study of single-wall carbon nanotubes. <i>Solid State Communications</i> , 1998, 105, 145-149.   | 1.9  | 41        |
| 84 | Simplified synthesis of double-wall carbon nanotubes. <i>Solid State Communications</i> , 2003, 126, 359-362.   | 1.9  | 41        |
| 85 | Thermal conductivity of B-C-N and BN nanotubes. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 2005, 23, 1883. | 1.6  | 41        |
| 86 | Ultraconfined Plasmonic Hotspots Inside Graphene Nanobubbles. <i>Nano Letters</i> , 2016, 16, 7842-7848.  | 9.1  | 40        |
| 87 | An Efficient Route to Graphitic Carbon-Layer-Coated Gallium Nitride Nanorods. <i>Advanced Materials</i> , 2002, 14, 1560-1562.  | 21.0 | 38        |
| 88 | Controlled placement of highly aligned carbon nanotubes for the manufacture of arrays of nanoscale torsional actuators. <i>Nanotechnology</i> , 2006, 17, 434-438.  | 2.6  | 38        |
| 89 | Properties of Boron Nitride Nanotubes. <i>AIP Conference Proceedings</i> , 2003, , .  | 0.4  | 36        |
| 90 | Current-controlled nanotube growth and zone refinement. <i>Applied Physics Letters</i> , 2005, 86, 173107.  | 3.3  | 34        |

| #   | ARTICLE   | IF   | CITATIONS |
|-----|---|------|-----------|
| 91  | Transport through crossed nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2000, 6, 868-871.   | 2.7  | 33        |
| 92  | Tunable thermal links. <i>Applied Physics Letters</i> , 2007, 90, 193114.   | 3.3  | 30        |
| 93  | Tuning Nanoelectromechanical Resonators with Mass Migration. <i>Nano Letters</i> , 2009, 9, 3209-3213.  | 9.1  | 28        |
| 94  | High-Field Scanning Probe Lithography in Hexadecane: Transitioning from Field Induced Oxidation to Solvent Decomposition through Surface Modification. <i>Advanced Materials</i> , 2007, 19, 3570-3573. | 21.0 | 25        |
| 95  | Vacancy growth and migration dynamics in atomically thin hexagonal boron nitride under electron beam irradiation. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 295-297.             | 2.4  | 24        |
| 96  | High-pressure chemistry of hydrocarbons relevant to planetary interiors and inertial confinement fusion. <i>Physics of Plasmas</i> , 2018, 25, .  | 1.9  | 24        |
| 97  | A new look at thermal properties of nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 4181-4183.   | 1.5  | 21        |
| 98  | Search for Superconductivity in Lithium. <i>Journal of Low Temperature Physics</i> , 1999, 114, 445-454.  | 1.4  | 19        |
| 99  | Extreme thermal stability of carbon nanotubes. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 3960-3963.   | 1.5  | 17        |
| 100 | Reply. <i>Physical Review Letters</i> , 2009, 102, .  | 7.8  | 17        |
| 101 | Effect of gadolinium adatoms on the transport properties of graphene. <i>Physical Review B</i> , 2012, 86, .  | 3.2  | 16        |
| 102 | Random access of nanodevices. <i>Solid State Communications</i> , 2000, 113, 549-552.   | 1.9  | 9         |
| 103 | Nanocrystal cleaving. <i>Applied Physics Letters</i> , 2004, 84, 2644-2645.   | 3.3  | 9         |
| 104 | Current-phase relation in graphene and application to a superconducting quantum interference device. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 2568-2571.                           | 1.5  | 9         |
| 105 | Transport and structural properties of polymerized AC 60 (A = K, Rb) under zero and high pressure conditions. <i>Applied Physics A: Materials Science and Processing</i> , 1997, 64, 263-269.           | 2.3  | 8         |
| 106 | Scanning tunnelling microscopy of charge density waves in $1T\text{-TaS}_2$ . <i>Journal of Microscopy</i> , 1988, 152, 771-778.  | 1.8  | 7         |
| 107 | Sharpened nanotubes, nanobearings, and nanosprings. <i>AIP Conference Proceedings</i> , 2000, .   | 0.4  | 7         |
| 108 | Direct measurement of the built-in potential in a nanoscale heterostructure. <i>Physical Review B</i> , 2010, 82, .   | 3.2  | 7         |

| #   | ARTICLE  | IF   | CITATIONS |
|-----|--|------|-----------|
| 109 | A Carbon Nanotube-based NEMS Parametric Amplifier for Enhanced Radio Wave Detection and Electronic Signal Amplification. <i>Journal of Physics: Conference Series</i> , 2011, 302, 012001. | 0.4  | 6         |
| 110 | Electromechanical properties of multiwall carbon nanotubes. <i>AIP Conference Proceedings</i> , 2001, , .  | 0.4  | 5         |
| 111 | Making waves with electrons. <i>Nature</i> , 1993, 363, 496-497.   | 27.8 | 4         |
| 112 | Anisotropic electronic structure of orthorhombic RbC <sub>60</sub> : A high-field ESR investigation. <i>Physical Review B</i> , 2001, 63, .  | 3.2  | 4         |
| 113 | Engineering Nanomotor Components from Multi-Walled Carbon Nanotubes via Reactive Ion Etching. <i>AIP Conference Proceedings</i> , 2004, , .  | 0.4  | 4         |
| 114 | Trapping and aligning carbon nanotubes via substrate geometry engineering. <i>New Journal of Physics</i> , 2004, 6, 15-15.   | 2.9  | 4         |
| 115 | Resistance of Telescoping Nanotubes. <i>AIP Conference Proceedings</i> , 2002, , .   | 0.4  | 3         |
| 116 | Electrically Driven Vaporization Of Multiwall Carbon Nanotubes For Rotary Bearing Creation. <i>AIP Conference Proceedings</i> , 2004, , .  | 0.4  | 3         |
| 117 | Excitons at the B K edge of boron nitride nanotubes probed by x-ray absorption spectroscopy. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 295301.                                | 1.8  | 3         |
| 118 | Is the ground state of. , 1999, , .  |      | 2         |
| 119 | Chapter 1 Nanotubes: an experimental overview. <i>Contemporary Concepts of Condensed Matter Science</i> , 2008, 3, 1-27.   | 0.5  | 2         |
| 120 | Low power microheater-based combustible gas sensor with graphene aerogel catalyst support. , 2015, , .   |      | 2         |
| 121 | The first stable lower fullerene: C <sub>[sub 36]</sub> . , 1998, , .  |      | 1         |
| 122 | Specific Heats of Mg(B <sub>1</sub> ~ <sup>x</sup> C <sub>x</sub> ) <sub>2</sub> : Two-Gap Superconductors. <i>AIP Conference Proceedings</i> , 2006, , .                                  | 0.4  | 1         |
| 123 | Chaotic Response of Driven Charge Density Wave Systems. <i>Molecular Crystals and Liquid Crystals</i> , 1985, 121, 49-53.  | 0.8  | 0         |
| 124 | Optical evidence of the weak coupling pairing mechanism in the superconductors K <sub>3</sub> C <sub>60</sub> and Rb <sub>3</sub> C <sub>60</sub> . , 1994, , .                            |      | 0         |
| 125 | Transport and localization in single-walled carbon nanotubes. , 1998, , .  |      | 0         |
| 126 | Thermoelectric power and thermal conductivity of single-walled carbon nanotubes. , 1998, , .   |      | 0         |



| #   | ARTICLE   | IF  | CITATIONS |
|-----|---|-----|-----------|
| 127 | Distinct polymer chain orientations in. , 1999, , .   |     | 0         |
| 128 | Manipulation of the transport properties of single-walled nanotubes by alkali intercalation and local charge transfer. , 1999, , .  |     | 0         |
| 129 | Electron Microscopy of the Operation of Nanoscale Devices. Materials Research Society Symposia Proceedings, 2004, 839, 143.         | 0.1 | 0         |
| 130 | Nanotube-based Molecular Motors. , 0, , .   |     | 0         |
| 131 | A proposed measurement of controlled defect induction and annealing in a carbon nanotube. , 2008, , .                               |     | 0         |
| 132 | Elastic Properties of Fullerenes. , 2001, , 163-171.  |     | 0         |
| 133 | Electrical and Mechanical Properties of Nanotubes Determined Using In-situ TEM Probes. Nanoscience and Technology, 2005, , 273-306. | 1.5 | 0         |