# Moon-Ho Ham

List of Publications by Year
in descending order



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|---|---|---|---|
| 117 papers | 5,467 citations | 101543 36 h-index | 82547 72 g-index |
| 120 all docs | 120 docs citations | 120 times ranked | 9860 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Copper-graphene heterostructure for back-end-of-line compatible high-performance interconnects. Npj 2D Materials and Applications, 2021, 5, . | 7.9 | 13 |
| 2 | Large-Area Bernal-Stacked Bilayer Graphene Film on a Uniformly Rough Cu Surface via Chemical Vapor Deposition. ACS Applied Electronic Materials, 2021, 3, 2497-2503. | 4.3 | 4 |
| 3 | Fabrication of Large-Area Molybdenum Disulfide Device Arrays Using Graphene/Ti Contacts. Molecules, 2021, 26, 4394. | 3.8 | 1 |
| 4 | High-quality nitrogen-doped graphene films synthesized from pyridine via two-step chemical vapor deposition. Carbon, 2020, 159, 579-585. | 10.3 | 40 |
| 5 | Defect-Assisted Contact Property Enhancement in a Molybdenum Disulfide Monolayer. ACS Applied Materials & Interfaces, 2020, 12, 4129-4134. | 8.0 | 15 |
| 6 | Graphene oxide nanocomposite membrane cooperatively cross-linked by monomer and polymer overcoming the trade-off between flux and rejection in forward osmosis. Journal of Membrane Science, 2020, 598, 117684. | 8.2 | 48 |
| 7 | Lowâ€Damaged Layerâ€byâ€Layer Etching of Largeâ€Area Molybdenum Disulfide Films via Mild Plasma Treatment. Advanced Materials Interfaces, 2020, 7, 2000762. | 3.7 | 5 |
| 8 | Chemically Prelithiated Graphene for Anodes of Li-Ion Batteries. Energy & Fuels, 2020, 34, 13048-13055. | 5.1 | 14 |
| 9 | Graphene Quantum Dot Oxidation Governs Noncovalent Biopolymer Adsorption. Scientific Reports, 2020, 10, 7074. | 3.3 | 36 |
| 10 | Aspect Ratio Control of Copper Nanowire via Solution Process and Its Flexible Transparent Conductive Electrode Applications. Electronic Materials Letters, 2020, 16, 404-410. | 2.2 | 14 |
| 11 | Substitutional Fluorine Doping of Large-Area Molybdenum Disulfide Monolayer Films for Flexible Inverter Device Arrays. ACS Applied Materials & Interfaces, 2020, 12, 31804-31809. | 8.0 | 25 |
| 12 | Transition Metal Dichalcogenides: Atomic Vacancy Control and Elemental Substitution in a Monolayer Molybdenum Disulfide for High Performance Optoelectronic Device Arrays (Adv. Funct.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 | 14.9 | 2 |
| 13 | Atomic Vacancy Control and Elemental Substitution in a Monolayer Molybdenum Disulfide for High Performance Optoelectronic Device Arrays. Advanced Functional Materials, 2020, 30, 1908147. | 14.9 | 50 |
| 14 | Threshold Voltage Modulation of a Grapheneâ€“ZnO Barristor Using a Polymer Doping Process. Advanced Electronic Materials, 2019, 5, 1800805. | 5.1 | 17 |
| 15 | Mechanical and electrical properties of NbMoTaW refractory high-entropy alloy thin films. International Journal of Refractory Metals and Hard Materials, 2019, 80, 286-291. | 3.8 | 96 |
| 16 | Low-Power Complementary Logic Circuit Using Polymer-Electrolyte-Gated Graphene Switching Devices. ACS Applied Materials & Interfaces, 2019, 11, 47247-47252. | 8.0 | 8 |
| 17 | Honeycombâ€Like Nitrogenâ€Doped Carbon 3D Nanoweb@Li<sub>2</sub>S Cathode Material for Use in Lithium Sulfur Batteries. ChemSusChem, 2019, 12, 824-829. | 6.8 | 34 |
| 18 | Lowering the Schottky Barrier Height by Graphene/Ag Electrodes for Highâ€Mobility MoS<sub>2</sub> Fieldâ€Effect Transistors. Advanced Materials, 2019, 31, e1804422. | 21.0 | 165 |

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|---|---|---|---|
| 19 | Au@TiO2/reduced graphene oxide nanocomposites for lithium-ion capacitors. Chemical Engineering Journal, 2019, 362, 136-143. | 12.7 | 32 |
| 20 | Effect of N-doped carbon layer on Co3O4 nanowire-graphene composites as anode materials for lithium ion batteries. Journal of Physics and Chemistry of Solids, 2019, 124, 266-273. | 4.0 | 20 |
| 21 | Solution-processed highly adhesive graphene coatings for corrosion inhibition of metals. Nano Research, 2019, 12, 19-23. | 10.4 | 23 |
| 22 | Electric Control over 2D Dirac Plasmon Resonances in Topological Insulator Bi2Se3 in Proximity Contact with Graphene. , 2019, , . | | 0 |
| 23 | Flexible Nanogenerators: Flexible Transparent Nanogenerators Utilizing Shape-Modulated ZnO Nanorod Arrays on Graphene Electrodes (Adv. Mater. Technol. 4/2018). Advanced Materials Technologies, 2018, 3, 1870014. | 5.8 | 0 |
| 24 | Flexible Transparent Nanogenerators Utilizing Shapeâ€Modulated ZnO Nanorod Arrays on Graphene Electrodes. Advanced Materials Technologies, 2018, 3, 1700355. | 5.8 | 10 |
| 25 | Control over Electronâ€“Phonon Interaction by Dirac Plasmon Engineering in the Bi<sub>2</sub>Se<sub>3</sub> Topological Insulator. Nano Letters, 2018, 18, 734-739. | 9.1 | 39 |
| 26 | Effects of Li doping on the structural and electrical properties of solution-processed ZnO films for high-performance thin-film transistors. Journal of Alloys and Compounds, 2018, 739, 41-46. | 5.5 | 23 |
| 27 | Charge transfer in graphene/polymer interfaces for CO2 detection. Nano Research, 2018, 11, 3529-3536. | 10.4 | 34 |
| 28 | Tunable semi-permeability of graphene-based membranes by adjusting reduction degree of laminar graphene oxide layer. Journal of Membrane Science, 2018, 547, 73-79. | 8.2 | 128 |
| 29 | Transfer of preheat-treated SnO2 via a sacrificial bridge-type ZnO layer for ethanol gas sensor. Sensors and Actuators B: Chemical, 2018, 255, 70-77. | 7.8 | 12 |
| 30 | Novel sulfonated graphene oxide incorporated polysulfone nanocomposite membranes for enhanced-performance in ultrafiltration process. Chemosphere, 2018, 207, 581-589. | 8.2 | 109 |
| 31 | In2O3-Based Thermoelectric Materials: The State of the Art and the Role of Surface State in the Improvement of the Efficiency of Thermoelectric Conversion. Crystals, 2018, 8, 14. | 2.2 | 28 |
| 32 | Effect of ribbon width on electrical transport properties of graphene nanoribbons. Nano Convergence, 2018, 5, 7. | 12.1 | 14 |
| 33 | Tunable Ion Sieving of Graphene Membranes through the Control of Nitrogen-Bonding Configuration. Nano Letters, 2018, 18, 5506-5513. | 9.1 | 52 |
| 34 | Highly Sensitive, Gate-Tunable, Room-Temperature Mid-Infrared Photodetection Based on Grapheneâ€“Bi<sub>2</sub>Se<sub>3</sub> Heterostructure. ACS Photonics, 2017, 4, 482-488. | 6.6 | 70 |
| 35 | Enhanced desalination performance of forward osmosis membranes based on reduced graphene oxide laminates coated with hydrophilic polydopamine. Carbon, 2017, 117, 293-300. | 10.3 | 125 |
| 36 | The effect of doping temperature on the nitrogen-bonding configuration of nitrogen-doped graphene by hydrothermal treatment. RSC Advances, 2017, 7, 20738-20741. | 3.6 | 18 |

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|---|---|---|---|
| 37 | Sulfur vacancy-induced reversible doping of transition metal disulfides via hydrazine treatment. Nanoscale, 2017, 9, 9333-9339. | 5.6 | 66 |
| 38 | Sizeâ€Controlled Hollow Spheres of C/Î±â€Fe<sub>2</sub>O<sub>3</sub> Prepared through the Quasiemulsionâ€Templated Method and Their Electrochemical Properties for Lithiumâ€Ion Storage. ChemElectroChem, 2017, 4, 2045-2051. | 3.4 | 23 |
| 39 | Pulsed KrF laser-assisted direct deposition of graphitic capping layer for Cu interconnect. Carbon, 2017, 123, 307-310. | 10.3 | 8 |
| 40 | Low-temperature synthesis of graphene by chemical vapor deposition and its applications. FlatChem, 2017, 5, 40-49. | 5.6 | 55 |
| 41 | Cerium vanadate and reduced graphene oxide composites for lithium-ion batteries. Journal of Alloys and Compounds, 2017, 724, 1075-1082. | 5.5 | 27 |
| 42 | Sub-10-nm Co 3 O 4 nanoparticles/graphene composites as high-performance anodes for lithium storage. Chemical Engineering Journal, 2017, 309, 15-21. | 12.7 | 33 |
| 43 | Chemically Functionalized, Wellâ€Dispersed Carbon Nanotubes in Lithiumâ€Doped Zinc Oxide for Lowâ€Cost, Highâ€Performance Thinâ€Film Transistors. Small, 2016, 12, 1859-1865. | 10.0 | 4 |
| 44 | Transistors: Chemically Functionalized, Well-Dispersed Carbon Nanotubes in Lithium-Doped Zinc Oxide for Low-Cost, High-Performance Thin-Film Transistors (Small 14/2016). Small, 2016, 12, 1960-1960. | 10.0 | 0 |
| 45 | Resistive switching in an amorphous ZnO dielectric film prepared on a Ga-doped ZnO transparent electrode. RSC Advances, 2016, 6, 103864-103871. | 3.6 | 7 |
| 46 | Low-temperature-grown continuous graphene films from benzene by chemical vapor deposition at ambient pressure. Scientific Reports, 2015, 5, 17955. | 3.3 | 108 |
| 47 | Direct Transfer Printing with Metal Oxide Layers for Fabricating Flexible Nanowire Devices. Advanced Functional Materials, 2015, 25, 6921-6926. | 14.9 | 10 |
| 48 | Palladium Nanoribbon Array for Fast Hydrogen Gas Sensing with Ultrahigh Sensitivity. Advanced Materials, 2015, 27, 6945-6952. | 21.0 | 50 |
| 49 | Chemically Driven, Water-Soluble Composites of Carbon Nanotubes and Silver Nanoparticles as Stretchable Conductors. ACS Macro Letters, 2015, 4, 769-773. | 4.8 | 14 |
| 50 | Gate capacitance model for the design of graphene nanoribbon array field-effect transistors. RSC Advances, 2015, 5, 54861-54866. | 3.6 | 4 |
| 51 | Isoindigo-Based Donorâ€“Acceptor Conjugated Polymers for Air-Stable Nonvolatile Memory Devices. ACS Macro Letters, 2015, 4, 322-326. | 4.8 | 39 |
| 52 | Contact resistance improvement by the modulation of peripheral length to area ratio of graphene contact pattern. Applied Physics Letters, 2015, 106, . | 3.3 | 11 |
| 53 | Solid-state synthesis of Ti2Nb10O29/reduced graphene oxide composites with enhanced lithium storage capability. Journal of Power Sources, 2015, 300, 272-278. | 7.8 | 90 |
| 54 | Quantitatively estimating defects in graphene devices using discharge current analysis method. Scientific Reports, 2015, 4, 4886. | 3.3 | 15 |

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| 55 | Binder-Free Pastes Fabricated from Solâ€“Gel-Derived TiO<SUB>2</SUB> by Ammonia Addition for Low-Temperature Photoelectrodes. Science of Advanced Materials, 2014, 6, 2496-2500. | 0.7 | 0 |
| 56 | Molecular interactions of polyimides with single-walled carbon nanotubes. Polymer Chemistry, 2013, 4, 290-295. | 3.9 | 12 |
| 57 | Bendable thin-film transistors based on solâ€“gel derived amorphous Ga-doped In2O3 semiconductors. Superlattices and Microstructures, 2013, 59, 21-28. | 3.1 | 12 |
| 58 | Effects of oxygen concentration on the properties of Al-doped ZnO transparent conductive films deposited by pulsed DC magnetron sputtering. Materials Science in Semiconductor Processing, 2013, 16, 997-1001. | 4.0 | 25 |
| 59 | All-solution-processed, transparent thin-film transistors based on metal oxides and single-walled carbon nanotubes. Journal of Materials Chemistry C, 2013, 1, 1840. | 5.5 | 29 |
| 60 | Subâ€10 nm Graphene Nanoribbon Array Fieldâ€Effect Transistors Fabricated by Block Copolymer Lithography. Advanced Materials, 2013, 25, 4723-4728. | 21.0 | 150 |
| 61 | Effects of multi-layer graphene capping on Cu interconnects. Nanotechnology, 2013, 24, 115707. | 2.6 | 66 |
| 62 | Fieldâ€Effect Transistors: Subâ€10 nm Graphene Nanoribbon Array Fieldâ€Effect Transistors Fabricated by Block Copolymer Lithography (Adv. Mater. 34/2013). Advanced Materials, 2013, 25, 4682-4682. | 21.0 | 1 |
| 63 | Predictive modeling and analysis of HfO<sub>2</sub> thin film process based on Bayesian information criterion using PCAâ€based neural networks. Surface and Interface Analysis, 2013, 45, 1334-1339. | 1.8 | 3 |
| 64 | Mode tunable p-type Si nanowire transistor based zero drive load logic inverter. Chemical Communications, 2012, 48, 7307. | 4.1 | 2 |
| 65 | Understanding and controlling the substrate effect on graphene electron-transfer chemistry via reactivity imprint lithography. Nature Chemistry, 2012, 4, 724-732. | 13.6 | 463 |
| 66 | Ga-doped ZnO films deposited with varying sputtering powers and substrate temperatures by pulsed DC magnetron sputtering and their property improvement potentials. Applied Surface Science, 2012, 258, 6537-6544. | 6.1 | 26 |
| 67 | Effect of deposition temperature on the properties of Al-doped ZnO films prepared by pulsed DC magnetron sputtering for transparent electrodes in thin-film solar cells. Applied Surface Science, 2012, 259, 596-599. | 6.1 | 16 |
| 68 | M13 Phage-Functionalized Single-Walled Carbon Nanotubes As Nanoprobes for Second Near-Infrared Window Fluorescence Imaging of Targeted Tumors. Nano Letters, 2012, 12, 1176-1183. | 9.1 | 256 |
| 69 | Elevated Temperature Anodized Nb<sub>2</sub>O<sub>5</sub>: A Photoanode Material with Exceptionally Large Photoconversion Efficiencies. ACS Nano, 2012, 6, 4045-4053. | 14.6 | 174 |
| 70 | Self-Selective Characteristics of Nanoscale $ hbox{VO}_{x}$ Devices for High-Density ReRAM Applications. IEEE Electron Device Letters, 2012, 33, 718-720. | 3.9 | 57 |
| 71 | Dynamics of Simultaneous, Single Ion Transport through Two Single-Walled Carbon Nanotubes: Observation of a Three-State System. Journal of the American Chemical Society, 2011, 133, 203-205. | 13.7 | 43 |
| 72 | Dynamic and Reversible Self-Assembly of Photoelectrochemical Complexes Based on Lipid Bilayer Disks, Photosynthetic Reaction Centers, and Single-Walled Carbon Nanotubes. Langmuir, 2011, 27, 1599-1609. | 3.5 | 13 |

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| 73 | Virus-templated self-assembled single-walled carbon nanotubes for highly efficient electron collection in photovoltaic devices. Nature Nanotechnology, 2011, 6, 377-384. | 31.5 | 368 |
| 74 | Bi- and trilayer graphene solutions. Nature Nanotechnology, 2011, 6, 439-445. | 31.5 | 337 |
| 75 | Biomimetic strategies for solar energy conversion: a technical perspective. Energy and Environmental Science, 2011, 4, 3834. | 30.8 | 69 |
| 76 | Controlled formation of oxide shells from GaN nanowires: Poly- to single-crystal. Electronic Materials Letters, 2011, 7, 243-247. | 2.2 | 7 |
| 77 | Evidence for High-Efficiency Exciton Dissociation at Polymer/Single-Walled Carbon Nanotube Interfaces in Planar Nano-heterojunction Photovoltaics. ACS Nano, 2010, 4, 6251-6259. | 14.6 | 82 |
| 78 | Electrical transport properties in electroless-etched Si nanowire field-effect transistors. Microelectronic Engineering, 2010, 87, 2407-2410. | 2.4 | 16 |
| 79 | Selective alignment of a ZnO nanowire in a magnetic field for the fabrication of an air-gap field-effect transistor. Microelectronic Engineering, 2010, 87, 10-14. | 2.4 | 10 |
| 80 | Epitaxial synthesis of GaN/Ga2O3 core/shell nanocable heterostructures by atmosphere control. Acta Materialia, 2010, 58, 4714-4722. | 7.9 | 10 |
| 81 | Photoelectrochemical complexes for solar energy conversion that chemically and autonomously regenerate. Nature Chemistry, 2010, 2, 929-936. | 13.6 | 126 |
| 82 | Exciton antennas and concentrators from coreâ€“shell and corrugated carbon nanotube filaments of homogeneous composition. Nature Materials, 2010, 9, 833-839. | 27.5 | 75 |
| 83 | Synthesis of Atomically Thin WO<sub>3</sub> Sheets from Hydrated Tungsten Trioxide. Chemistry of Materials, 2010, 22, 5660-5666. | 6.7 | 215 |
| 84 | Modeling and optimization of the growth rate for ZnO thin films using neural networks and genetic algorithms. Expert Systems With Applications, 2009, 36, 4061-4066. | 7.6 | 36 |
| 85 | Single-Crystalline Ferromagnetic Mn<sub>4</sub>Si<sub>7</sub> Nanowires. Journal of Physical Chemistry C, 2009, 113, 8143-8146. | 3.1 | 35 |
| 86 | Dielectrophoretic assembly of GaN nanowires for UV sensor applications. Solid State Communications, 2008, 148, 194-198. | 1.9 | 50 |
| 87 | Properties of high-k Ti1â^'xSixO2 gate dielectric layers prepared at room temperature. Applied Surface Science, 2008, 254, 3943-3948. | 6.1 | 3 |
| 88 | High-k TixSi1â^'xO2 thin films prepared by co-sputtering method. Microelectronic Engineering, 2008, 85, 100-103. | 2.4 | 5 |
| 89 | Gate-controlled transport in GaN nanowire devices with high- kÂSi3N4 gate dielectrics. Solid State Communications, 2008, 145, 327-331. | 1.9 | 8 |
| 90 | Transport Properties in (Ga,Mn)N Nanowire Field-Effect Transistors. Journal of Physical Chemistry C, 2007, 111, 11480-11483. | 3.1 | 16 |

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| 91 | Effects of the channel thickness on the structural and electrical characteristics of room-temperature fabricated ZnO thin-film transistors. Semiconductor Science and Technology, 2007, 22, 608-612. | 2.0 | 78 |
| 92 | Fabrication and characterization of GaN/amorphous Ga2O3 nanocables through thermal oxidation. Solid State Communications, 2007, 142, 437-440. | 1.9 | 23 |
| 93 | Dependence of electrical properties on interfacial layer of Ta2O5 films. Microelectronic Engineering, 2007, 84, 2865-2868. | 2.4 | 7 |
| 94 | ZnO-Nanowire-Inserted GaN/ZnO Heterojunction Light-Emitting Diodes. Small, 2007, 3, 568-572. | 10.0 | 153 |
| 95 | Process Effect on the RMS Roughness of CuInSe2Thin Films Grown by MOMBE. Transactions on Electrical and Electronic Materials, 2007, 8, 58-66. | 1.9 | 0 |
| 96 | Chemical surface passivation of HfO2films in a ZnO nanowire transistor. Nanotechnology, 2006, 17, 2116-2121. | 2.6 | 35 |
| 97 | Electroluminescence from ZnO nanowires in n-ZnO film/ZnO nanowire array/p-GaN film heterojunction light-emitting diodes. Applied Physics Letters, 2006, 88, 202105. | 3.3 | 182 |
| 98 | Doping concentration dependence of ferromagnetic ordering in (Ga,Mn)N nanowires. Applied Physics Letters, 2006, 89, 173117. | 3.3 | 14 |
| 99 | MFM and Raman studies in PEMBE-grown (Ga,Mn)N thin films showing room-temperature ferromagnetism. Applied Surface Science, 2006, 252, 6289-6293. | 6.1 | 7 |
| 100 | Annealing effects on the properties of HfO2 films grown by metalorganic molecular beam epitaxy. Microelectronic Engineering, 2006, 83, 2452-2457. | 2.4 | 11 |
| 101 | Role of manganese in ferromagnetic (Al,Mn)N films. Solid State Communications, 2006, 137, 11-15. | 1.9 | 5 |
| 102 | Electrical spin injection from room-temperature ferromagnetic (Ga, Mn)N in nitride-based spin-polarized light-emitting diodes. Journal of Physics Condensed Matter, 2006, 18, 7703-7708. | 1.8 | 21 |
| 103 | EO Characteristics of Fringe-field Switching LCD on a-C:H Thin Films Using the UV Alignment Method. Ferroelectrics, 2006, 344, 191-196. | 0.6 | 2 |
| 104 | Contact characteristics in GaN nanowire devices. Nanotechnology, 2006, 17, 2203-2206. | 2.6 | 41 |
| 105 | Ferromagnetic Properties in Diluted Magnetic Semiconductors (Al,Mn)N grown by PEMBE. Transactions on Electrical and Electronic Materials, 2006, 7, 12-15. | 1.9 | 0 |
| 106 | Growth and characterization of MOMBE grown HfO2. Applied Surface Science, 2005, 240, 105-111. | 6.1 | 31 |
| 107 | Micropatterning of block copolymer micelle thin films using solvent capillary contact printing. Nanotechnology, 2005, 16, 2897-2902. | 2.6 | 19 |
| 108 | Correlation of nanochemistry and electrical properties in HfO2 films grown by metalorganic molecular-beam epitaxy. Applied Physics Letters, 2005, 86, 102903. | 3.3 | 17 |

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| 109 | A comparative study on magnetic and magnetotransport properties in (Ga, Mn)N epitaxial films grown on undoped and n-type GaN by PEMBE. Journal of Physics Condensed Matter, 2004, 16, 6139-6145. | 1.8 | 2 |
| 110 | Room-temperature ferromagnetism of (Ga,Mn)N films: effects of Ga flux and growth temperature. Journal of Crystal Growth, 2004, 260, 85-90. | 1.5 | 0 |
| 111 | Magnetic and magnetotransport properties in the n-type (Ga,Mn)N thin films. Journal of Electronic Materials, 2004, 33, 114-117. | 2.2 | 0 |
| 112 | Observation of room-temperature ferromagnetism in (Al,Mn)N thin films. Journal of Crystal Growth, 2004, 271, 420-424. | 1.5 | 8 |
| 113 | Room-temperature ferromagnetism of Mg and Mn co-doped GaN films grown by PEMBE. Applied Surface Science, 2004, 222, 322-326. | 6.1 | 6 |
| 114 | Hole-Mediated Ferromagnetic Properties in Zn1-xMnxO Thin Films. Japanese Journal of Applied Physics, 2004, 43, L280-L283. | 1.5 | 72 |
| 115 | Effects of Mn flux on ferromagnetic properties of (Ga,Mn)N films grown by PEMBE. Solid State Communications, 2003, 128, 119-123. | 1.9 | 2 |
| 116 | Magnetotransport in (Ga,Mn)N Ferromagnetic Semiconductors Grown by Plasma-Enhanced Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2003, 42, L1372-L1374. | 1.5 | 9 |
| 117 | Room Temperature Electron-Mediated Ferromagnetism in a Diluted Magnetic Semiconductor: (Ga,Mn)N. Japanese Journal of Applied Physics, 2002, 41, L1069-L1071. | 1.5 | 17 |