

Chun-Wei Chen

List of Publications by Year in descending order

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115
papers

10,082
citations

66315

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118
all docs

118
docs citations

118
times ranked

16725
citing authors

#	ARTICLE	IF	CITATIONS
1	Blue Photoluminescence from Chemically Derived Graphene Oxide. <i>Advanced Materials</i> , 2010, 22, 505-509.	11.1	1,824
2	Highly Active and Stable Hybrid Catalyst of Cobalt-Doped FeS ₂ Nanosheets@Carbon Nanotubes for Hydrogen Evolution Reaction. <i>Journal of the American Chemical Society</i> , 2015, 137, 1587-1592.	6.6	800
3	Solution-Processable Graphene Oxide as an Efficient Hole Transport Layer in Polymer Solar Cells. <i>ACS Nano</i> , 2010, 4, 3169-3174.	7.3	731
4	Tunable Photoluminescence from Graphene Oxide. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6662-6666.	7.2	584
5	Advanced rechargeable aluminium ion battery with a high-quality natural graphite cathode. <i>Nature Communications</i> , 2017, 8, 14283.	5.8	453
6	Transparent and conducting electrodes for organic electronics from reduced graphene oxide. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	368
7	Investigation of nanoscale morphological changes in organic photovoltaics during solvent vapor annealing. <i>Journal of Materials Chemistry</i> , 2008, 18, 306-312.	6.7	288
8	Interfacial Nanostructuring on the Performance of Polymer/TiO ₂ Nanorod Bulk Heterojunction Solar Cells. <i>Journal of the American Chemical Society</i> , 2009, 131, 3644-3649.	6.6	286
9	Enhancing photoluminescence quenching and photoelectric properties of CdSe quantum dots with hole accepting ligands. <i>Journal of Materials Chemistry</i> , 2008, 18, 675.	6.7	229
10	FeS ₂ Nanocrystal Ink as a Catalytic Electrode for Dye-Sensitized Solar Cells. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 6694-6698.	7.2	227
11	A first-principles study of nitrogen- and boron-assisted platinum adsorption on carbon nanotubes. <i>Carbon</i> , 2009, 47, 850-855.	5.4	198
12	Top Laminated Graphene Electrode in a Semitransparent Polymer Solar Cell by Simultaneous Thermal Annealing/Releasing Method. <i>ACS Nano</i> , 2011, 5, 6564-6570.	7.3	188
13	High-Mobility InSe Transistors: The Role of Surface Oxides. <i>ACS Nano</i> , 2017, 11, 7362-7370.	7.3	177
14	Low-Threshold Lasing from 2D Homologous Organic-Inorganic Hybrid Ruddlesden-Popper Perovskite Single Crystals. <i>Nano Letters</i> , 2018, 18, 3221-3228.	4.5	177
15	Clean Lifting Transfer of Large Area Residual-Free Graphene Films. <i>Advanced Materials</i> , 2013, 25, 4521-4526.	11.1	157
16	Intermixing-seeded growth for high-performance planar heterojunction perovskite solar cells assisted by precursor-capped nanoparticles. <i>Energy and Environmental Science</i> , 2016, 9, 1282-1289.	15.6	157
17	Multilayer-graphene-stabilized lithium deposition for anode-free lithium-metal batteries. <i>Nanoscale</i> , 2019, 11, 2710-2720.	2.8	118
18	The influence of interface modifier on the performance of nanostructured ZnO/polymer hybrid solar cells. <i>Applied Physics Letters</i> , 2009, 94, 063308.	1.5	114

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19	Solution-Processable Pyrite FeS ₂ Nanocrystals for the Fabrication of Heterojunction Photodiodes with Visible to NIR Photodetection. <i>Advanced Materials</i> , 2012, 24, 3415-3420.	11.1	112
20	Near-ultraviolet photodetector based on hybrid polymer/zinc oxide nanorods by low-temperature solution processes. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	110
21	Extrinsic Origin of Persistent Photoconductivity in Monolayer MoS ₂ Field Effect Transistors. <i>Scientific Reports</i> , 2015, 5, 11472.	1.6	110
22	Nanostructured metal oxide/conjugated polymer hybrid solar cells by low temperature solution processes. <i>Journal of Materials Chemistry</i> , 2007, 17, 4571.	6.7	103
23	Biologically inspired graphene-chlorophyll phototransistors with high gain. <i>Carbon</i> , 2013, 63, 23-29.	5.4	100
24	Extended red light harvesting in a poly(3-hexylthiophene)/iron disulfide nanocrystal hybrid solar cell. <i>Nanotechnology</i> , 2009, 20, 405207.	1.3	91
25	Graphene-Based Integrated Photovoltaic Energy Harvesting/Storage Device. <i>Small</i> , 2015, 11, 2929-2937.	5.2	90
26	Self-Encapsulated Doping of n-Type Graphene Transistors with Extended Air Stability. <i>ACS Nano</i> , 2012, 6, 6215-6221.	7.3	76
27	Fast growth of large-grain and continuous MoS ₂ films through a self-capping vapor-liquid-solid method. <i>Nature Communications</i> , 2020, 11, 3682.	5.8	76
28	Substituent Effect on the Optoelectronic Properties of Alternating Fluorene~Cyclopentadithiophene Copolymers. <i>Macromolecules</i> , 2008, 41, 6664-6671.	2.2	71
29	Interplay of Three-Dimensional Morphologies and Photocarrier Dynamics of Polymer/TiO ₂ Bulk Heterojunction Solar Cells. <i>Journal of the American Chemical Society</i> , 2011, 133, 11614-11620.	6.6	66
30	Self-Crack-Filled Graphene Films by Metallic Nanoparticles for High-Performance Graphene Heterojunction Solar Cells. <i>Advanced Materials</i> , 2015, 27, 1724-1729.	11.1	65
31	Transport/Magnetotransport of High-Performance Graphene Transistors on Organic Molecule-Functionalized Substrates. <i>Nano Letters</i> , 2012, 12, 964-969.	4.5	62
32	Polymer-metal-oxide hybrid solar cells. <i>Journal of Materials Chemistry A</i> , 2013, 1, 10574.	5.2	60
33	Improved charge separation and transport efficiency in poly(3-hexylthiophene)-TiO ₂ nanorod bulk heterojunction solar cells. <i>Journal of Materials Chemistry</i> , 2008, 18, 2201.	6.7	59
34	Employing an amphiphilic interfacial modifier to enhance the performance of a poly(3-hexyl) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142 T	6.7	56
35	A Quinone-Based Electrode for High-Performance Rechargeable Aluminum-Ion Batteries with a Low-Cost AlCl ₃ /Urea Ionic Liquid Electrolyte. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25853-25860.	4.0	55
36	Atomic-Scale Interfacial Band Mapping across Vertically Phased-Separated Polymer/Fullerene Hybrid Solar Cells. <i>Nano Letters</i> , 2013, 13, 2387-2392.	4.5	53

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37	Antibacterial property of Ag nanoparticle-impregnated N-doped titania films under visible light. <i>Scientific Reports</i> , 2015, 5, 11978.	1.6	52
38	Spatially Resolved Imaging on Photocarrier Generations and Band Alignments at Perovskite/PbI ₂ Heterointerfaces of Perovskite Solar Cells by Light-Modulated Scanning Tunneling Microscopy. <i>Nano Letters</i> , 2017, 17, 1154-1160.	4.5	50
39	Solution processable nanocarbon platform for polymer solar cells. <i>Energy and Environmental Science</i> , 2011, 4, 3521.	15.6	47
40	Facile Synthesized spiro[fluorene-9,9'-phenanthrene-10,10'-dione] in Donor-Acceptor-Donor Hole-Transporting Materials for Perovskite Solar Cells. <i>ChemSusChem</i> , 2018, 11, 3225-3233.	3.6	47
41	Self-Assembly Atomic Stacking Transport Layer of 2D Layered Titania for Perovskite Solar Cells with Extended UV Stability. <i>Advanced Energy Materials</i> , 2018, 8, 1701722.	10.2	46
42	Regioregularity effects in the chain orientation and optical anisotropy of composite polymer/fullerene films for high-efficiency, large-area organic solar cells. <i>Journal of Materials Chemistry</i> , 2009, 19, 5554.	6.7	44
43	Surface Oxidation Doping to Enhance Photogenerated Carrier Separation Efficiency for Ultrahigh Gain Indium Selenide Photodetector. <i>ACS Photonics</i> , 2017, 4, 2930-2936.	3.2	44
44	Growth and characterization of nonpolar ZnO (0001) epitaxial film on β -LiAlO ₂ substrate by chemical vapor deposition. <i>Journal of Crystal Growth</i> , 2007, 308, 412-416.	0.7	42
45	Sunlight-activated graphene-heterostructure transparent cathodes: enabling high-performance n-graphene/p-Si Schottky junction photovoltaics. <i>Energy and Environmental Science</i> , 2015, 8, 2085-2092.	15.6	42
46	Intrinsic Carrier Transport of Phase-Pure Homologous 2D Organolead Halide Hybrid Perovskite Single Crystals. <i>Small</i> , 2018, 14, e1803763.	5.2	42
47	Electric field-assisted self-organization of polymer:fullerene hybrids on the photovoltaic performance. <i>Energy and Environmental Science</i> , 2011, 4, 2134.	15.6	41
48	Polarization-dependent confocal Raman microscopy of an individual ZnO nanorod. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	40
49	Enhanced Charge Separation by Sieve-Layer Mediation in High-Efficiency Inorganic-Organic Solar Cells. <i>Advanced Materials</i> , 2009, 21, 759-763.	11.1	39
50	Precisely Controlled Ultrastrong Photoinduced Doping at Graphene-Heterostructures Assisted by Trap-State-Mediated Charge Transfer. <i>Advanced Materials</i> , 2015, 27, 7809-7815.	11.1	39
51	Quantitative nanoscale monitoring the effect of annealing process on the morphology and optical properties of poly(3-hexylthiophene)/[6,6]-phenyl C61-butyric acid methyl ester thin film used in photovoltaic devices. <i>Journal of Applied Physics</i> , 2009, 106, 034506.	1.1	38
52	Photodriven Dipole Reordering: Key to Carrier Separation in Metalorganic Halide Perovskites. <i>ACS Nano</i> , 2019, 13, 4402-4409.	7.3	38
53	Nanoscale morphology and performance of molecular-weight-dependent poly(3-hexylthiophene)/TiO ₂ nanorod hybrid solar cells. <i>Journal of Materials Chemistry</i> , 2008, 18, 4097.	6.7	36
54	High-Performance InSe Transistors with Ohmic Contact Enabled by Nonrectifying Barrier-Type Indium Electrodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 33450-33456.	4.0	35

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55	Quantum Dot Light-Emitting Diode Using Solution-Processable Graphene Oxide as the Anode Interfacial Layer. <i>Journal of Physical Chemistry C</i> , 2012, 116, 10181-10185.	1.5	31
56	Unravelling the origin of the photocarrier dynamics of fullerene-derivative passivation of SnO ₂ electron transporters in perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2020, 8, 23607-23616.	5.2	30
57	Layer-by-layer thin film of reduced graphene oxide and gold nanoparticles as an effective sample plate in laser-induced desorption/ionization mass spectrometry. <i>Analytica Chimica Acta</i> , 2014, 809, 97-103.	2.6	28
58	Iron Pyrite/Titanium Dioxide Photoanode for Extended Near Infrared Light Harvesting in a Photoelectrochemical Cell. <i>Scientific Reports</i> , 2016, 6, 20397.	1.6	27
59	Unveiling the Nanoparticle-Seed Catalytic Nucleation Kinetics of Perovskite Solar Cells by Time-Resolved GIXS. <i>Advanced Functional Materials</i> , 2019, 29, 1902582.	7.8	27
60	Atomic-Layer Controlled Interfacial Band Engineering at Two-Dimensional Layered PtSe ₂ /Si Heterojunctions for Efficient Photoelectrochemical Hydrogen Production. <i>ACS Nano</i> , 2021, 15, 4627-4635.	7.3	27
61	Enhancement of laser action in ZnO nanorods assisted by surface plasmon resonance of reduced graphene oxide nanoflakes. <i>Optics Express</i> , 2012, 20, A799.	1.7	26
62	Wavelength-Selective Dual p- and n-Type Carrier Transport of an Organic/Graphene/Inorganic Heterostructure. <i>Advanced Materials</i> , 2015, 27, 282-287.	11.1	26
63	Photoluminescence quenching of graphene oxide by metal ions in aqueous media. <i>Carbon</i> , 2015, 82, 24-30.	5.4	26
64	Nanoscale Morphology Control of Polymer/TiO ₂ Nanocrystal Hybrids: Photophysics, Charge Generation, Charge Transport, and Photovoltaic Properties. <i>Journal of Physical Chemistry C</i> , 2010, 114, 18717-18724.	1.5	25
65	Gas molecule effects on field emission properties of single-walled carbon nanotube. <i>Diamond and Related Materials</i> , 2004, 13, 1306-1313.	1.8	24
66	Polymer/Metal Oxide Nanocrystals Hybrid Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010, 16, 1635-1640.	1.9	24
67	Exploring the Origin of Phase-Transformation Kinetics of CsPbI ₃ Perovskite Nanocrystals Based on Activation Energy Measurements. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 3287-3293.	2.1	23
68	Metallic Nanowire Coupled CsPbBr ₃ Quantum Dots Plasmonic Nanolaser. <i>Advanced Functional Materials</i> , 2021, 31, 2102375.	7.8	23
69	Creation of 3D Textured Graphene/Si Schottky Junction Photocathode for Enhanced Photoelectrochemical Efficiency and Stability. <i>Advanced Energy Materials</i> , 2019, 9, 1901022.	10.2	21
70	Enhanced infrared light harvesting of inorganic nanocrystal photovoltaic and photodetector on graphene electrode. <i>Applied Physics Letters</i> , 2011, 98, 263509.	1.5	20
71	Tunable Photoinduced Carrier Transport of a Black Phosphorus Transistor with Extended Stability Using a Light-Sensitized Encapsulated Layer. <i>ACS Photonics</i> , 2016, 3, 1102-1108.	3.2	20
72	Critical Intermediate Structure That Directs the Crystalline Texture and Surface Morphology of Organo-Lead Trihalide Perovskite. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 36897-36906.	4.0	20

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73	Oxidized-monolayer tunneling barrier for strong Fermi-level depinning in layered InSe transistors. <i>Npj 2D Materials and Applications</i> , 2019, 3, .	3.9	19
74	Two-dimensional Bis(dithiolene)iron(II) Self-powered UV Photodetectors with Ultrahigh Air Stability. <i>Advanced Science</i> , 2021, 8, 2100564.	5.6	19
75	Influence of Solvent on the Dispersion of Single-Walled Carbon Nanotubes in Polymer Matrix and the Photovoltaic Performance. <i>Journal of Physical Chemistry C</i> , 2010, 114, 10932-10936.	1.5	16
76	Correlation of nanoscale organizations of polymer and nanocrystals in polymer/inorganic nanocrystal bulk heterojunction hybrid solar cells: insights from multiscale molecular simulations. <i>Energy and Environmental Science</i> , 2013, 6, 307-315.	15.6	16
77	Bulk intermixing-type perovskite $\text{CH}_3\text{NH}_3\text{PbI}_3/\text{TiO}_2$ nanorod hybrid solar cells. <i>Nanoscale</i> , 2015, 7, 14532-14537.	2.8	15
78	Effects of surface oxidation of Cu substrates on the growth kinetics of graphene by chemical vapor deposition. <i>Nanoscale</i> , 2017, 9, 2324-2329.	2.8	14
79	Visualizing band alignment across 2D/3D perovskite heterointerfaces of solar cells with light-modulated scanning tunneling microscopy. <i>Nano Energy</i> , 2021, 89, 106362.	8.2	13
80	Quantum-assisted photoelectric gain effects in perovskite solar cells. <i>NPG Asia Materials</i> , 2020, 12, .	3.8	12
81	Residue-free fabrication of high-performance graphene devices by patterned PMMA stencil mask. <i>AIP Advances</i> , 2014, 4, .	0.6	11
82	Stoichiometric dependence of TiO_x as a cathode modifier on band alignment of polymer solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2014, 125, 233-238.	3.0	11
83	Wavelength-dependent optical transition mechanisms for light-harvesting of perovskite MAPbI_3 solar cells using first-principles calculations. <i>Journal of Materials Chemistry C</i> , 2016, 4, 5248-5254.	2.7	11
84	Environment-insensitive and gate-controllable photocurrent enabled by bandgap engineering of MoS_2 junctions. <i>Scientific Reports</i> , 2017, 7, 44768.	1.6	11
85	Origin of Extended UV Stability of 2D Atomic Layer Titania-Based Perovskite Solar Cells Unveiled by Ultrafast Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 21473-21480.	4.0	11
86	Strong Excitonic Magneto-Optic Effects in Two-Dimensional Organic-Inorganic Hybrid Perovskites. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 10279-10286.	4.0	11
87	Segmented Highly Reversible Thermochromic Layered Perovskite $[(\text{CH}_3)_2\text{NH}_3]_2\text{CuCl}_4$ Crystal Coupled with an Inverse Magnetocaloric Effect. <i>ACS Applied Electronic Materials</i> , 2022, 4, 521-530.	2.0	11
88	Dependence of Nanocrystal Dimensionality on the Polymer Nanomorphology, Anisotropic Optical Absorption, and Carrier Transport in $\text{P3HT}:\text{TiO}_2$ Bulk Heterojunctions. <i>Journal of Physical Chemistry C</i> , 2012, 116, 25081-25088.	1.5	10
89	Clean water generation through a multifunctional activated carbon- TiO_2 interfacial solar distillation system. <i>RSC Advances</i> , 2021, 11, 23036-23044.	1.7	10
90	Using Exciton/Trion Dynamics to Spatially Monitor the Catalytic Activities of MoS_2 during the Hydrogen Evolution Reaction. <i>ACS Nano</i> , 2022, 16, 4298-4307.	7.3	10

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91	Integration of on-chip perovskite nanocrystal laser and long-range surface plasmon polariton waveguide with etching-free process. <i>Nanoscale</i> , 2022, 14, 10075-10081.	2.8	9
92	Atomically Resolved Quantum-Confined Electronic Structures at Organic-Inorganic Interfaces of Two-Dimensional Ruddlesden-Popper Halide Perovskites. <i>Nano Letters</i> , 2021, 21, 8066-8072.	4.5	8
93	Growth behavior and microstructure of ZnO epilayer on $\text{LiAlO}_2(100)$ substrate by chemical vapor deposition. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2009, 206, 215-219.	0.8	7
94	Interactions between fluorescence of atomically layered graphene oxide and metallic nanoparticles. <i>Nanoscale</i> , 2013, 5, 1687.	2.8	7
95	Stabilized High-Membered and Phase-Pure 2D All Inorganic Ruddlesden-Popper Halide Perovskites Nanocrystals as Photocatalysts for the CO_2 Reduction Reaction. <i>Small</i> , 2022, 18, e2107881.	5.2	7
96	Studies of Electronic Excitations of Rectangular ZnO Nanorods by Electron Energy-Loss Spectroscopy. <i>Plasmonics</i> , 2012, 7, 123-130.	1.8	6
97	Lithographic in-mold patterning for CsPbBr_3 nanocrystals distributed Bragg reflector single-mode laser. <i>Nanoscale</i> , 2021, 13, 15830-15836.	2.8	6
98	Direct investigation of the reorientational dynamics of A-site cations in 2D organic-inorganic hybrid perovskite by solid-state NMR. <i>Nature Communications</i> , 2022, 13, 1513.	5.8	6
99	Observation of quantum Hall plateau-plateau transition and scaling behavior of the zeroth Landau level in graphene <small>xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>p</mml:mi><mml:mtext>â</mml:mtext><mml:mi>n</mml:mi></small> <i>Physical Review B</i> , 2016, 93, .	1.1	5
100	Self-Patterned CsPbBr_3 Nanocrystal Based Plasmonic Hot-Carrier Photodetector at Telecommunications Wavelengths. <i>Advanced Optical Materials</i> , 2021, 9, 2101474.	3.6	5
101	Phase Modulation of Self-Gating in Ionic Liquid-Functionalized InSe Field-Effect Transistors. <i>Nano Letters</i> , 2022, 22, 2270-2276.	4.5	5
102	Anisotropic surface plasmon excitation in Au/silica nanowire. <i>Applied Physics Letters</i> , 2010, 96, 263106.	1.5	4
103	Water Splitting: Creation of 3D Textured Graphene/Si Schottky Junction Photocathode for Enhanced Photo-Electrochemical Efficiency and Stability (<i>Adv. Energy Mater.</i> 29/2019). <i>Advanced Energy Materials</i> , 2019, 9, 1970115.	10.2	4
104	Magnetic Dipole Resonance and Coupling Effects Directly Enhance the Raman Signals of As-Grown Graphene on Copper Foil by over One Hundredfold. <i>Chemistry of Materials</i> , 2018, 30, 1472-1483.	3.2	3
105	Internal Built-In Electric Fields at Organic-Inorganic Interfaces of Two-Dimensional Ruddlesden-Popper Perovskite Single Crystals. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 19818-19825.	4.0	3
106	Dual Functional Polymer Interlayer for Facilitating Ion Transport and Reducing Charge Recombination in Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 33666-33672.	4.0	2
107	Spatially and Precisely Controlled Large-Scale and Persistent Optical Gating in a TiO_2 - MoS_2 Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 38319-38325.	4.0	2
108	Self-assembly nuclei with a preferred orientation at the extended hydrophobic surface toward textured growth of ZnO nanorods in aqueous chemical bath deposition. <i>Nanotechnology</i> , 2021, 32, 175603.	1.3	2

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109	Growth and Optical Properties of Nonpolar ($10\{\text{ar}\}\{0\}$) Zn _{1-x} Co _x O Epitaxial Film on a LiAlO_2 Substrate. Chemical Vapor Deposition, 2011, 17, 88-92.	1.4	1
110	Superconductivity observed in platinum-silicon interface. Applied Physics Letters, 2014, 104, 211604.	1.5	1
111	Interlayer Interaction Induced Layer-Dependent Catalytic Activity toward a Hydrogen Evolution Reaction on Two-Dimensional PtSe ₂ . Journal of Physical Chemistry C, 2021, 125, 19716-19723.	1.5	1
112	Self-Patterned CsPbBr ₃ Nanocrystal Based Plasmonic Hot-Carrier Photodetector at Telecommunications Wavelengths (Advanced Optical Materials 24/2021). Advanced Optical Materials, 2021, 9, .	3.6	1
113	Work function evolution of graphene oxide by utilizing hydrothermal treatment. , 2010, , .		0
114	Photovoltaic and optoelectronic applications of large-area graphene-based electronics. , 2010, , .		0
115	Solid-State NMR Characterization of the Reorientational Dynamics of A-site Cations in 2D OIHPs. , 0, , .		0