

Moon Kim

List of Publications by Year in descending order

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129
papers

8,251
citations

87843

38
h-index

48277

88
g-index

131
all docs

131
docs citations

131
times ranked

13082
citing authors

#	ARTICLE	IF	CITATIONS
1	Understanding the Impact of Wall Thickness on Thermal Stability of Silver-Gold Nanocages. Journal of Physical Chemistry C, 2022, 126, 7337-7345.	1.5	5
2	Quasi-CW Lasing from Directly Patterned and Encapsulated Perovskite Cavity at 260 K. ACS Photonics, 2022, 9, 1984-1991.	3.2	12
3	Stable and Bright Electroluminescent Devices utilizing Emissive OD Perovskite Nanocrystals Incorporated in a 3D CsPbBr ₃ Matrix. Advanced Materials, 2022, 34, .	11.1	18
4	Three-Dimensional Integration of Functional Oxides and Crystalline Silicon for Optical Neuromorphic Computing Using Nanometer-Scale Oxygen Scavenging Barriers. ACS Applied Nano Materials, 2021, 4, 2153-2159.	2.4	7
5	Enhancement in external quantum efficiency of AlGaInP red 1/4-LED using chemical solution treatment process. Scientific Reports, 2021, 11, 4535.	1.6	22
6	Detection of nucleotides in hydrated ssDNA via 2D hBN nanopore with ionic liquid/salt-water interface. Electrophoresis, 2021, 42, 991-1002.	1.3	10
7	Electro-optic response in epitaxially stabilized orthorhombic O_3 . Physical Review Materials, 2021, 5, .	0.9	8
8	Position-controlled remote epitaxy of ZnO for mass-transfer of as-deployed semiconductor microarrays. APL Materials, 2021, 9, .	2.2	8
9	Transferable, flexible white light-emitting diodes of GaN p-n junction microcrystals fabricated by remote epitaxy. Nano Energy, 2021, 86, 106075.	8.2	27
10	Growth and Structure of Strong Pockels Material Strontium Barium Niobate on SrTiO ₃ and Si by Molecular Beam Epitaxy. Advanced Photonics Research, 2021, 2, 2100111.	1.7	4
11	Nickel-Platinum Nanoparticles as Peroxidase Mimics with a Record High Catalytic Efficiency. Journal of the American Chemical Society, 2021, 143, 2660-2664.	6.6	124
12	Morphology-Invariant Metallic Nanoparticles with Tunable Plasmonic Properties. ACS Nano, 2021, 15, 2428-2438.	7.3	44
13	Surface Energy-Driven Preferential Grain Growth of Metal Halide Perovskites: Effects of Nanoimprint Lithography Beyond Direct Patterning. ACS Applied Materials & Interfaces, 2021, 13, 5368-5378.	4.0	26
14	Growth and Structure of Strong Pockels Material Strontium Barium Niobate on SrTiO ₃ and Si by Molecular Beam Epitaxy. Advanced Photonics Research, 2021, 2, 2170035.	1.7	0
15	Facet-selective morphology-controlled remote epitaxy of ZnO microcrystals via wet chemical synthesis. Scientific Reports, 2021, 11, 22697.	1.6	7
16	Indocyanine green modified silica shells for colon tumor marking. Applied Surface Science, 2020, 499, 143885.	3.1	2
17	Epitaxial, electro-optically active barium titanate thin films on silicon by chemical solution deposition. Journal of the American Ceramic Society, 2020, 103, 1209-1218.	1.9	17
18	Fabrication of hexagonal boron nitride based 2D nanopore sensor for the assessment of electrochemical responsiveness of human serum transferrin protein. Electrophoresis, 2020, 41, 630-637.	1.3	13

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19	Optimization of Digital Growth of Thick N-Polar InGa ₃ N by MOCVD. Journal of Electronic Materials, 2020, 49, 3450-3454.	1.0	2
20	Controllable Ferromagnetism in Super-tetragonal PbTiO ₃ through Strain Engineering. Nano Letters, 2020, 20, 881-886.	4.5	11
21	Atomic Layer Deposition of Layered Boron Nitride for Large-Area 2D Electronics. ACS Applied Materials & Interfaces, 2020, 12, 36688-36694.	4.0	22
22	Modification of the Electronic Transport in Atomically Thin WSe ₂ by Oxidation. Advanced Materials Interfaces, 2020, 7, 2000422.	1.9	11
23	Selective-Area Remote Epitaxy of ZnO Microrods Using Multilayered Monolayer-Patterned Graphene for Transferable and Flexible Device Fabrications. ACS Applied Nano Materials, 2020, 3, 8920-8930.	2.4	25
24	Novel Polymorphic Phase of BaCu ₂ As ₂ : Impact of Flux for New Phase Formation in Crystal Growth. Crystal Growth and Design, 2020, 20, 5922-5930.	1.4	2
25	Parallel Nanoimprint Forming of One-Dimensional Chiral Semiconductor for Strain-Engineered Optical Properties. Nano-Micro Letters, 2020, 12, 160.	14.4	8
26	Atomically Controlled Tunable Doping in High-Performance WSe ₂ Devices. Advanced Electronic Materials, 2020, 6, 1901304.	2.6	46
27	Remote heteroepitaxy of GaN microrod heterostructures for deformable light-emitting diodes and wafer recycle. Science Advances, 2020, 6, eaaz5180.	4.7	80
28	Composition and annealing effects on the linear electro-optic response of solution-deposited barium strontium titanate. Journal of the American Ceramic Society, 2020, 103, 5700-5705.	1.9	9
29	Strain-Engineered Anisotropic Optical and Electrical Properties in 2D Chiral Chain Tellurium. Advanced Materials, 2020, 32, e2002342.	11.1	40
30	Strong Second Harmonic Generation in a Tungsten Bronze Oxide by Enhancing Local Structural Distortion. Journal of the American Chemical Society, 2020, 142, 7480-7486.	6.6	33
31	Raman response and transport properties of tellurium atomic chains encapsulated in nanotubes. Nature Electronics, 2020, 3, 141-147.	13.1	126
32	Role of template layers for heteroepitaxial growth of lanthanum oxide on GaN(0001) via atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	5
33	Template Regeneration in Galvanic Replacement: A Route to Highly Diverse Hollow Nanostructures. ACS Nano, 2020, 14, 791-801.	7.3	38
34	Aqueous Synthesis of Pd-M (M = Pd, Pt, and Au) Decahedra with Concave Facets for Catalytic Applications. Topics in Catalysis, 2020, 63, 664-672.	1.3	9
35	MoS ₂ for Enhanced Electrical Performance of Ultrathin Copper Films. ACS Applied Materials & Interfaces, 2019, 11, 28345-28351.	4.0	24
36	Regulated Interfacial Thermal Conductance between Cu and Diamond by a TiC Interlayer for Thermal Management Applications. ACS Applied Materials & Interfaces, 2019, 11, 26507-26517.	4.0	41

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37	Stabilization of a monolayer tellurene phase at CdTe interfaces. <i>Nanoscale</i> , 2019, 11, 14698-14706.	2.8	10
38	InAs/AlGaAs quantum dots grown by a novel molecular beam epitaxy multistep design for intermediate band solar cells: physical insight into the structure, composition, strain and optical properties. <i>CrystEngComm</i> , 2019, 21, 4644-4652.	1.3	1
39	High stability of ultra-small and isolated gold nanoparticles in metal-organic framework materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 17536-17546.	5.2	41
40	Deformation behavior of nanocrystalline and ultrafine-grained CoCrCuFeNi high-entropy alloys. <i>Journal of Materials Research</i> , 2019, 34, 720-731.	1.2	14
41	Stiffness measurement of nanosized liposomes using solid-state nanopore sensor with automated recapturing platform. <i>Electrophoresis</i> , 2019, 40, 1337-1344.	1.3	17
42	Stable and Active Oxidation Catalysis by Cooperative Lattice Oxygen Redox on SmMn ₂ O ₅ Mullite Surface. <i>Journal of the American Chemical Society</i> , 2019, 141, 10722-10728.	6.6	64
43	Thickness and Sphericity Control of Hollow Hard Silica Shells through Iron (III) Doping: Low Threshold Ultrasound Contrast Agents. <i>Advanced Functional Materials</i> , 2019, 29, 1900893.	7.8	4
44	Enhancing Interconnect Reliability and Performance by Converting Tantalum to 2D Layered Tantalum Sulfide at Low Temperature. <i>Advanced Materials</i> , 2019, 31, e1902397.	11.1	35
45	Monolithic integration of transition metal oxide multiple quantum wells on silicon (001). <i>Journal of Applied Physics</i> , 2019, 125, 155302.	1.1	7
46	Kinetic Stability of Bulk LiNiO ₂ and Surface Degradation by Oxygen Evolution in LiNiO ₂ -Based Cathode Materials. <i>Advanced Energy Materials</i> , 2019, 9, 1802586.	10.2	160
47	Engineering the Palladium-WSe ₂ Interface Chemistry for Field Effect Transistors with High-Performance Hole Contacts. <i>ACS Applied Nano Materials</i> , 2019, 2, 75-88.	2.4	24
48	Formation of graphene atop a Si adlayer on the C-face of SiC. <i>Physical Review Materials</i> , 2019, 3, .	0.9	3
49	Field-effect transistors made from solution-grown two-dimensional tellurene. <i>Nature Electronics</i> , 2018, 1, 228-236.	13.1	591
50	Metal-organic chemical vapor deposition of N-polar InN quantum dots and thin films on vicinal GaN. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	17
51	Aluminum carbide hydrolysis induced degradation of thermal conductivity and tensile strength in diamond/aluminum composite. <i>Journal of Composite Materials</i> , 2018, 52, 2709-2717.	1.2	14
52	Structural effect of two-dimensional BNNS on grain growth suppressing behaviors in Al-matrix nanocomposites. <i>Scientific Reports</i> , 2018, 8, 1614.	1.6	33
53	Pd-Ru Bimetallic Nanocrystals with a Porous Structure and Their Enhanced Catalytic Properties. <i>Particle and Particle Systems Characterization</i> , 2018, 35, 1700386.	1.2	12
54	Multiple consecutive recapture of rigid nanoparticles using a solid-state nanopore sensor. <i>Electrophoresis</i> , 2018, 39, 833-843.	1.3	16

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55	Probing Nanoscale Local Lattice Strains in Semiconductor Nanostructures and Devices by Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 972-973.	0.2	0
56	Engineering Multilayered Nanocrystal Solids with Enhanced Optical Properties Using Metal Oxides for Photonic Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 6782-6789.	2.4	13
57	A Method to Prepare TEM Specimens by Focused Ion Beam Milling for Cu/diamond Composites. <i>Microscopy and Microanalysis</i> , 2018, 24, 838-839.	0.2	1
58	Piezoelectric modulation of nonlinear optical response in BaTiO ₃ thin film. <i>Applied Physics Letters</i> , 2018, 113, 132902.	1.5	13
59	Atomic-Resolution Study of Grain Boundaries in CdTe Using Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2018, 24, 102-103.	0.2	2
60	Tailoring MWCNTs and β -Cyclodextrin for Sensitive Detection of Acetaminophen and Estrogen. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 21411-21427.	4.0	66
61	High-Mobility Helical Tellurium Field-Effect Transistors Enabled by Transfer-Free, Low-Temperature Direct Growth. <i>Advanced Materials</i> , 2018, 30, e1803109.	11.1	71
62	Fermi Level Manipulation through Native Doping in the Topological Insulator Bi ₂ Se ₃ . <i>ACS Nano</i> , 2018, 12, 6310-6318.	7.3	37
63	Giant polarization in super-tetragonal thin films through interphase strain. <i>Science</i> , 2018, 361, 494-497.	6.0	173
64	Solution synthesis of few-layer 2H MX ₂ (M = Mo, W; X = S, Se). <i>Journal of Materials Chemistry C</i> , 2017, 5, 2859-2864.	2.7	32
65	New Mo ₆ Te ₆ Sub-Nanometer-Diameter Nanowire Phase from 2H-MoTe ₂ . <i>Advanced Materials</i> , 2017, 29, 1606264.	11.1	64
66	Metal-Organic-Inorganic Nanocomposite Thermal Interface Materials with Ultralow Thermal Resistances. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 10120-10127.	4.0	17
67	Indium segregation in N-polar InGaN quantum wells evidenced by energy dispersive X-ray spectroscopy and atom probe tomography. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	34
68	Metal-organic chemical vapor deposition of high quality, high indium composition N-polar InGaN layers for tunnel devices. <i>Journal of Applied Physics</i> , 2017, 121, 185707.	1.1	18
69	Coherent Interlayer Tunneling and Negative Differential Resistance with High Current Density in Double Bilayer Graphene-WSe ₂ Heterostructures. <i>Nano Letters</i> , 2017, 17, 3919-3925.	4.5	53
70	Interface Chemistry of Contact Metals and Ferromagnets on the Topological Insulator Bi ₂ Se ₃ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 23551-23563.	1.5	71
71	Harvesting electrical energy from carbon nanotube yarn twist. <i>Science</i> , 2017, 357, 773-778.	6.0	306
72	Low temperature (100°C) atomic layer deposited-ZrO ₂ for recessed gate GaN HEMTs on Si. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	10

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73	Sub-10 nm Tunable Hybrid Dielectric Engineering on MoS ₂ for Two-Dimensional Material-Based Devices. ACS Nano, 2017, 11, 10243-10252.	7.3	28
74	Al ₂ O ₃ on WSe ₂ by ozone based atomic layer deposition: Nucleation and interface study. APL Materials, 2017, 5, .	2.2	11
75	In Situ Heating Study of 2H-MoTe ₂ to Mo ₆ Te ₆ Nanowire Phase Transition. Microscopy and Microanalysis, 2017, 23, 1764-1765.	0.2	2
76	Studies of two-dimensional h-BN and MoS ₂ for potential diffusion barrier application in copper interconnect technology. Npj 2D Materials and Applications, 2017, 1, .	3.9	57
77	Cubic crystalline erbium oxide growth on GaN(0001) by atomic layer deposition. Journal of Applied Physics, 2017, 122, .	1.1	10
78	Hexagonal to monoclinic phase transformation in Eu ₂ O ₃ thin films grown on GaN (0001). Applied Physics Letters, 2017, 111, .	1.5	9
79	Aberration-Corrected STEM Study of Shape Controlled Metallic Core-Shell Nanoparticles for Catalytic Applications. Microscopy and Microanalysis, 2017, 23, 1852-1853.	0.2	0
80	Defects and Surface Structural Stability of MoTe ₂ Under Vacuum Annealing. ACS Nano, 2017, 11, 11005-11014.	7.3	117
81	Inter-level carrier dynamics and photocurrent generation in large band gap quantum dot solar cell by multistep growth. Solar Energy Materials and Solar Cells, 2017, 171, 142-147.	3.0	8
82	Leveraging First Principles Modeling and Machine Learning for Microscopy Data Inversion. Microscopy and Microanalysis, 2017, 23, 178-179.	0.2	1
83	Pt@Ni octahedral nanocrystals as a class of highly active electrocatalysts toward the hydrogen evolution reaction in an alkaline electrolyte. Journal of Materials Chemistry A, 2016, 4, 12392-12397.	5.2	103
84	Effect of diamond surface chemistry and structure on the interfacial microstructure and properties of Al/diamond composites. RSC Advances, 2016, 6, 67252-67259.	1.7	24
85	Simple Specimen Preparation Method for In Situ Heating Experiments. Microscopy and Microanalysis, 2016, 22, 132-133.	0.2	1
86	Atomic and electronic structure of Lomer dislocations at CdTe bicrystal interface. Scientific Reports, 2016, 6, 27009.	1.6	35
87	Formation of hexagonal boron nitride on graphene-covered copper surfaces. Journal of Materials Research, 2016, 31, 945-958.	1.2	17
88	Synthesis of Pt@Ni Octahedra in Continuous-Flow Droplet Reactors for the Scalable Production of Highly Active Catalysts toward Oxygen Reduction. Nano Letters, 2016, 16, 3850-3857.	4.5	86
89	MoS ₂ transistors with 1-nanometer gate lengths. Science, 2016, 354, 99-102.	6.0	1,140
90	Covalent Nitrogen Doping and Compressive Strain in MoS ₂ by Remote N ₂ Plasma Exposure. Nano Letters, 2016, 16, 5437-5443.	4.5	323

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91	Tailoring Renal Clearance and Tumor Targeting of Ultrasmall Metal Nanoparticles with Particle Density. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 16039-16043.	7.2	92
92	Tailoring Renal Clearance and Tumor Targeting of Ultrasmall Metal Nanoparticles with Particle Density. <i>Angewandte Chemie</i> , 2016, 128, 16273-16277.	1.6	28
93	Controllable growth of layered selenide and telluride heterostructures and superlattices using molecular beam epitaxy. <i>Journal of Materials Research</i> , 2016, 31, 900-910.	1.2	85
94	Ru Nanoframes with an fcc Structure and Enhanced Catalytic Properties. <i>Nano Letters</i> , 2016, 16, 2812-2817.	4.5	187
95	Growth Morphology and Defects in 2D Heterostructures and Interfaces. <i>Microscopy and Microanalysis</i> , 2015, 21, 101-102.	0.2	0
96	Aberration Corrected High Angle Annular Dark Field (HAADF) Scanning Transmission Electron Microscopy (STEM) and In Situ Transmission Electron Microscopy (TEM) Study of Transition Metal Dichalcogenides (TMDs). <i>Microscopy and Microanalysis</i> , 2015, 21, 431-432.	0.2	1
97	A fundamental study of the effects of grain boundaries on performance of poly-crystalline thin film CdTe solar cells. , 2015, , .		0
98	Photochemical Deposition of Highly Dispersed Pt Nanoparticles on Porous CeO ₂ Nanofibers for the Water-Gas Shift Reaction. <i>Advanced Functional Materials</i> , 2015, 25, 4153-4162.	7.8	75
99	Atomic Scale Study of Lomer-Cottrell and Hirth Lock Dislocations in CdTe. <i>Microscopy and Microanalysis</i> , 2015, 21, 2087-2088.	0.2	2
100	Aberration-Corrected STEM and Tomography of Pd-Pt Nanoparticles: Core-Shell Cubic and Core-Frame Concave Structures. <i>Microscopy and Microanalysis</i> , 2015, 21, 1731-1732.	0.2	0
101	Atomic Layer-by-Layer Deposition of Platinum on Palladium Octahedra for Enhanced Catalysts toward the Oxygen Reduction Reaction. <i>ACS Nano</i> , 2015, 9, 2635-2647.	7.3	209
102	Highly Scalable, Atomically Thin WSe ₂ Grown <i>via</i> Metal-Organic Chemical Vapor Deposition. <i>ACS Nano</i> , 2015, 9, 2080-2087.	7.3	339
103	Atomically thin resonant tunnel diodes built from synthetic van der Waals heterostructures. <i>Nature Communications</i> , 2015, 6, 7311.	5.8	382
104	Low temperature synthesis of graphite on Ni films using inductively coupled plasma enhanced CVD. <i>Journal of Materials Chemistry C</i> , 2015, 3, 5192-5198.	2.7	34
105	Manganese Doping of Monolayer MoS ₂ : The Substrate Is Critical. <i>Nano Letters</i> , 2015, 15, 6586-6591.	4.5	357
106	Pd-Ir Core-Shell Nanocubes: A Type of Highly Efficient and Versatile Peroxidase Mimic. <i>ACS Nano</i> , 2015, 9, 9994-10004.	7.3	254
107	MoS ₂ functionalization for ultra-thin atomic layer deposited dielectrics. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	171
108	Direct Synthesis of van der Waals Solids. <i>ACS Nano</i> , 2014, 8, 3715-3723.	7.3	253

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109	Aberration Corrected Electron Microscopy Study of Bimetallic Pd@Pt Nanocrystal: Core-Shell Cubic and Core-Frame Concave Structures. Journal of Physical Chemistry C, 2014, 118, 28876-28882.	1.5	26
110	Atomically Thin Heterostructures Based on Single-Layer Tungsten Diselenide and Graphene. Nano Letters, 2014, 14, 6936-6941.	4.5	132
111	Creating Single Boundary between Two CdTe (111) Wafers with Controlled Orientation by Wafer Bonding. Microscopy and Microanalysis, 2014, 20, 516-517.	0.2	1
112	Characterization of Poly-Crystalline CdTe Solar Cells Using Aberration-Corrected Transmission Electron Microscope. Microscopy and Microanalysis, 2014, 20, 522-523.	0.2	0
113	In-Situ Studies of Thermal Stability of Core-Frame Cubic Pd@Rh Nanocrystals at Elevated Temperatures. Microscopy and Microanalysis, 2014, 20, 1632-1633.	0.2	0
114	Luminescent LaF3:Ce-doped organically modified nanoporous silica xerogels. Journal of Applied Physics, 2013, 113, .	1.1	8
115	Rapid Selective Etching of PMMA Residues from Transferred Graphene by Carbon Dioxide. Journal of Physical Chemistry C, 2013, 117, 23000-23008.	1.5	89
116	Creating a single twin boundary between two CdTe (111) wafers with controlled rotation angle by wafer bonding. Applied Physics Letters, 2013, 103, .	1.5	21
117	A Mechanistic Study on the Nucleation and Growth of Au on Pd Seeds with a Cubic or Octahedral Shape. ChemCatChem, 2012, 4, 1668-1674.	1.8	28
118	Thermal mapping of Delphi thermal test dies. , 2011, , .		0
119	Annealing Temperature-Dependent Interfacial Behavior of Sequentially Plasma-Activated Silicon Bonded Wafers. Journal of Microelectromechanical Systems, 2011, 20, 17-20.	1.7	10
120	Dielectric dipole mitigated Schottky barrier height tuning using atomic layer deposited aluminum oxide for contact resistance reduction. Applied Physics Letters, 2011, 99, 102108.	1.5	12
121	DIRECT TWO-DIMENSIONAL ELECTRICAL MEASUREMENT USING POINT PROBING FOR DOPING AREA IDENTIFICATION OF NANODEVICE IN TEM. Nano, 2010, 05, 61-66.	0.5	3
122	Current anisotropy of carbon nanotube diodes: Voltage and work function dependence. Applied Physics Letters, 2010, 96, 263107.	1.5	8
123	Hydrogenated amorphous silicon nanowire transistors with Schottky barrier source/drain junctions. Applied Physics Letters, 2010, 97, .	1.5	8
124	Sequential Plasma-Activated Bonding Mechanism of Silicon/Silicon Wafers. Journal of Microelectromechanical Systems, 2010, 19, 840-848.	1.7	16
125	Quantitative Experimental Analysis of Schottky Barriers and Poole-Frenkel Emission in Carbon Nanotube Devices. IEEE Nanotechnology Magazine, 2009, 8, 355-360.	1.1	10
126	Conformal Al2O3 dielectric layer deposited by atomic layer deposition for graphene-based nanoelectronics. Applied Physics Letters, 2008, 92, .	1.5	245

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127	HIGHLY REPRODUCIBLE SINGLE POLYANILINE NANOWIRE USING ELECTROPHORESIS METHOD. Nano, 2008, 03, 75-82.	0.5	19
128	Surface energy induced patterning of polymer nanostructures for cancer diagnosis and therapy., 2007,, .		1
129	Cowpea Mosaic Virus as a Scaffold for 3-D Patterning of Gold Nanoparticles. Nano Letters, 2004, 4, 867-870.	4.5	209