

# Manh-Huong Phan

## List of Publications by Year in descending order

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115  
papers

7,529  
citations

81839

39  
h-index

53190

85  
g-index

117  
all docs

117  
docs citations

117  
times ranked

7110  
citing authors

#	ARTICLE	IF	CITATIONS
1	Review of the magnetocaloric effect in manganite materials. Journal of Magnetism and Magnetic Materials, 2007, 308, 325-340.	1.0	1,611
2	Strong room-temperature ferromagnetism in VSe2 monolayers on van der Waals substrates. Nature Nanotechnology, 2018, 13, 289-293.	15.6	1,252
3	Giant magnetoimpedance materials: Fundamentals and applications. Progress in Materials Science, 2008, 53, 323-420.	16.0	767
4	Tunable High Aspect Ratio Iron Oxide Nanorods for Enhanced Hyperthermia. Journal of Physical Chemistry C, 2016, 120, 10086-10093.	1.5	209
5	Excellent magnetocaloric properties of La <sub>0.7</sub> Ca <sub>0.3</sub> <sup>x</sup> Sr <sub>x</sub> MnO <sub>3</sub> (0.05 ≤ x ≤ 0.25) single crystals. Applied Physics Letters, 2005, 86, 072504.	1.5	181
6	Improving the Heating Efficiency of Iron Oxide Nanoparticles by Tuning Their Shape and Size. Journal of Physical Chemistry C, 2018, 122, 2367-2381.	1.5	178
7	Charge Density Wave State Suppresses Ferromagnetic Ordering in VSe <sub>2</sub> Monolayers. Journal of Physical Chemistry C, 2019, 123, 14089-14096.	1.5	144
8	Large magnetocaloric effect in a La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> single crystal. Journal of Applied Physics, 2004, 96, 1154-1158.	1.1	137
9	Magnetic and magnetocaloric properties of La <sub>0.7</sub> Ca <sub>0.3</sub> <sup>x</sup> Ba <sub>x</sub> MnO <sub>3</sub> compounds. Journal of Magnetism and Magnetic Materials, 2003, 256, 306-310.	1.0	135
10	Exchange Bias Effects in Iron Oxide-Based Nanoparticle Systems. Nanomaterials, 2016, 6, 221.	1.9	124
11	Table-like magnetocaloric effect and enhanced refrigerant capacity in Eu <sub>8</sub> Ca <sub>16</sub> Ge <sub>30</sub> -EuO composite materials. Applied Physics Letters, 2011, 99, .	1.5	120
12	Monolayer Vanadium-Doped Tungsten Disulfide: A Room-Temperature Dilute Magnetic Semiconductor. Advanced Science, 2020, 7, 2001174.	5.6	104
13	Mechanism and controlled growth of shape and size variant core/shell FeO/Fe <sub>3</sub> O <sub>4</sub> nanoparticles. Nanoscale, 2013, 5, 7942.	2.8	94
14	Unlocking the Potential of Magnetotactic Bacteria as Magnetic Hyperthermia Agents. Small, 2019, 15, e1902626.	5.2	79
15	Magnetocaloric properties of nanocrystalline LaMnO <sub>3</sub> : Enhancement of refrigerant capacity and relative cooling power. Journal of Alloys and Compounds, 2012, 545, 157-161.	2.8	72
16	Origin of the magnetic anomaly and tunneling effect of europium on the ferromagnetic ordering in $\text{Eu}_{1-x}\text{Sr}_x\text{MnO}_3$	1.1	70
17	Magnetocaloric effect in a La <sub>0.7</sub> Ca <sub>0.3</sub> MnO <sub>3</sub> single crystal. Physica B: Condensed Matter, 2003, 327, 221-224.	1.3	69
18	Surface spin disorder and exchange-bias in hollow maghemite nanoparticles. Applied Physics Letters, 2012, 101, .	1.5	69

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19	Tunable Ferromagnetism and Thermally Induced Spin Flip in Vanadium-Doped Tungsten Diselenide Monolayers at Room Temperature. <i>Advanced Materials</i> , 2020, 32, e2003607.	11.1	68
20	Structure, magnetic, and magnetocaloric properties of amorphous and crystalline $\text{La}_{0.4}\text{Ca}_{0.6}\text{MnO}_3$ + $\text{Fe}$ nanoparticles. <i>Journal of Alloys and Compounds</i> , 2012, 512, 94-99.	2.8	67
21	Angle resolved photoemission spectroscopy reveals spin charge separation in metallic $\text{MoSe}_2$ grain boundary. <i>Nature Communications</i> , 2017, 8, 14231.	5.8	66
22	Room-Temperature Ferromagnetism in $\text{MoTe}_2$ by Post-Growth Incorporation of Vanadium Impurities. <i>Advanced Electronic Materials</i> , 2019, 5, 1900044.	2.6	60
23	Large magnetic entropy change in Cu-doped manganites. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 285, 199-203.	1.0	59
24	Large magnetic entropy change above 300 K in a colossal magnetoresistive material $\text{La}_{0.7}\text{Sr}_{0.3}\text{Mn}_{0.98}\text{Ni}_{0.02}\text{O}_3$ . <i>Journal of Applied Physics</i> , 2005, 97, 103901.	1.1	59
25	Enhanced giant magnetoimpedance effect and field sensitivity in Co-coated soft ferromagnetic amorphous ribbons. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	59
26	Combined current-modulation annealing induced enhancement of giant magnetoimpedance effect of Co-rich amorphous microwires. <i>Journal of Applied Physics</i> , 2014, 115, 17A326.	1.1	54
27	Novel nanostructure and magnetic properties of $\text{Co}/\text{Fe}/\text{Hf}/\text{O}$ films. <i>Nanotechnology</i> , 2007, 18, 155705.	1.3	53
28	Large magnetocaloric effect in single crystal $\text{Pr}_{0.63}\text{Sr}_{0.37}\text{MnO}_3$ . <i>Journal of Applied Physics</i> , 2005, 97, 10M306.	1.1	50
29	Tunable magnetocaloric effect near room temperature in $\text{La}_{0.7-x}\text{Pr}_x\text{Sr}_{0.3}\text{MnO}_3$ ( $0.02 \leq x \leq 0.30$ ) manganites. <i>Journal of Applied Physics</i> , 2012, 111, 063918.	1.1	49
30	Hybrid magnetic nanoparticles as efficient nanoheaters in biomedical applications. <i>Nanoscale Advances</i> , 2021, 3, 867-888.	2.2	48
31	Magnetic phase transitions and magnetocaloric effect in $\text{La}_{0.7}\text{Ca}_{0.3}\text{Mn}_{1-x}\text{Fe}_x\text{O}_3$ ( $0.00 \leq x \leq 0.07$ ) manganites. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	47
32	Origin and Shell-Driven Optimization of the Heating Power in Core/Shell Bimagnetic Nanoparticles. <i>ACS Applied Nano Materials</i> , 2020, 3, 1755-1765.	2.4	46
33	Large magnetocaloric effect in $\text{La}_{0.845}\text{Sr}_{0.155}\text{Mn}_{1-x}\text{M}_x\text{O}_3$ ( $\text{M} = \text{Mn}, \text{Cu}, \text{Co}$ ) perovskites. <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 1744-1747.	0.7	45
34	Origin of asymmetrical magnetoimpedance in a Co-based amorphous microwire due to dc bias current. <i>Applied Physics Letters</i> , 2003, 83, 2871-2873.	1.5	43
35	Giant magnetoimpedance effect in ultrasoft $\text{FeAlSiBCuNb}$ nanocomposites for sensor applications. <i>Journal of Applied Physics</i> , 2005, 98, 014316.	1.1	42
36	Asymmetric hysteresis loops and its dependence on magnetic anisotropy in exchange biased Co/CoO core-shell nanoparticles. <i>Applied Physics Letters</i> , 2012, 101, .	1.5	42

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37	Tuning exchange bias in Fe <sup>3+</sup> -Fe <sub>2</sub> O <sub>3</sub> core-shell nanoparticles: Impacts of interface and surface spins. Applied Physics Letters, 2014, 104, .	1.5	41
38	Manganese perovskites for room temperature magnetic refrigeration applications. Journal of Magnetism and Magnetic Materials, 2007, 316, e562-e565.	1.0	40
39	Enhanced Magnetism in Highly Ordered Magnetite Nanoparticle-Filled Nanohole Arrays. Small, 2014, 10, 2840-2848.	5.2	40
40	Optimized giant magnetoimpedance effect in amorphous and nanocrystalline materials. Journal of Applied Physics, 2006, 99, 08C505.	1.1	39
41	Carbon nanostraws: nanotubes filled with superparamagnetic nanoparticles. Nanotechnology, 2009, 20, 485604.	1.3	39
42	Magneto-Impedance Biosensor With Enhanced Sensitivity for Highly Sensitive Detection of Nanomag-D Beads. IEEE Transactions on Magnetics, 2013, 49, 4060-4063.	1.2	39
43	Effect of annealing on the microstructure and magnetic properties of Fe-based nanocomposite materials. Composites Part A: Applied Science and Manufacturing, 2006, 37, 191-196.	3.8	34
44	Impacts of nanostructuring and magnetic ordering of Nd <sup>3+</sup> on the magnetic and magnetocaloric response in NdMnO <sub>3</sub> . Journal of Magnetism and Magnetic Materials, 2015, 384, 138-143.	1.0	32
45	Formation mechanisms of NaZn <sub>13</sub> -type phase in giant magnetocaloric La <sup>1-x</sup> Fe <sup>x</sup> Si compounds during rapid solidification and annealing. Journal of Alloys and Compounds, 2015, 646, 503-511.	2.8	32
46	Readiness of Magnetic Nanobiosensors for Point-of-Care Commercialization. Journal of Electronic Materials, 2019, 48, 4749-4761.	1.0	30
47	Critical length and giant magnetoimpedance in Co <sub>69</sub> Fe <sub>4.5</sub> Ni <sub>1.5</sub> Si <sub>10</sub> B <sub>15</sub> amorphous ribbons. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2010, 172, 146-150.	1.7	29
48	Ferromagnetic Microwire Composites. Engineering Materials and Processes, 2016, , .	0.2	29
49	Isolation of Cancer-Derived Exosomes Using a Variety of Magnetic Nanostructures: From Fe <sub>3</sub> O <sub>4</sub> Nanoparticles to Ni Nanowires. Nanomaterials, 2020, 10, 1662.	1.9	29
50	Superparamagnetic nanoparticles encapsulated in lipid vesicles for advanced magnetic hyperthermia and biodetection. Journal of Applied Physics, 2016, 119, .	1.1	28
51	Epitaxial magnetite nanorods with enhanced room temperature magnetic anisotropy. Nanoscale, 2017, 9, 7858-7867.	2.8	27
52	Magnetically tunable iron oxide nanotubes for multifunctional biomedical applications. Journal of Alloys and Compounds, 2019, 789, 323-329.	2.8	26
53	Enhanced magnetoimpedance effect in Co-based amorphous ribbons coated with carbon nanotubes. Journal of Applied Physics, 2012, 111, 07E507.	1.1	25
54	Magnetocaloric manganites: Progress and challenges. Physica Status Solidi (A) Applications and Materials Science, 2007, 204, 4091-4095.	0.8	24

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55	A magnetic sensor using a 2D van der Waals ferromagnetic material. Scientific Reports, 2020, 10, 4789.	1.6	23
56	Large magnetocaloric effect in $\text{Pr}_{1-x}\text{Pb}_x\text{MnO}_3$ ( $0.1 \leq x \leq 0.5$ ) perovskites. Journal of Applied Physics, 2006, 99, 08Q108.	1.1	22
57	Giant magnetoimpedance and field sensitivity in amorphous and nanocrystalline $(\text{Co}_{1-x}\text{Fe}_x)\text{Zr}_7\text{B}_4$ ( $x = 0, 0.025, 0.05, 0.1$ ) ribbons. Journal of Applied Physics, 2011, 109, 07B508.	1.1	21
58	Magnetocaloric effect and refrigerant capacity in $\text{Sm}_{1-x}\text{Sr}_x\text{MnO}_3$ ( $x = 0.42, 0.44, 0.46$ ) manganites. Journal of Applied Physics, 2012, 111, 07D705.	1.1	21
59	Roles of bulk and surface magnetic anisotropy on the longitudinal spin Seebeck effect of Pt/YIG. Scientific Reports, 2017, 7, 13316.	1.6	21
60	Magnetic frustration effects in $\text{LaCaMnO}_3$ single crystals. Journal of Applied Physics, 2003, 93, 8200-8202.	1.1	20
61	Correlation between magnetic softness, sample surface and magnetoimpedance in $\text{Co}_{69}\text{Fe}_{4.5}\text{X}_{1.5}\text{Si}_{10}\text{B}_{15}$ ( $\text{X} = \text{Ni}, \text{Al}, \text{Cr}$ ) amorphous ribbons. Physica B: Condensed Matter, 2010, 405, 2836-2839.	1.3	20
62	A new contactless magneto-LC resonance technology for real-time respiratory motion monitoring. Sensors and Actuators A: Physical, 2017, 265, 120-126.	2.0	20
63	Table-like magnetocaloric behavior and enhanced cooling efficiency of a Bi-constituent Gd alloy wire-based composite. Journal of Alloys and Compounds, 2018, 764, 789-793.	2.8	20
64	Giant Magnetoimpedance Effect in $\text{Co}_{70}\text{Fe}_{5}\text{Si}_{15}\text{B}_{10}$ and $\text{Co}_{70}\text{Fe}_{5}\text{Si}_{15}\text{Nb}_{2.2}\text{Cu}_{0.8}\text{B}_7$ Ribbons. Japanese Journal of Applied Physics, 2003, 42, 5571-5574.	0.8	19
65	Scaling of the Thermally Induced Sign Inversion of Longitudinal Spin Seebeck Effect in a Compensated Ferrimagnet: Role of Magnetic Anisotropy. Advanced Functional Materials, 2022, 32, 2109170.	7.8	19
66	Magnetoimpedance Biosensors and Real-Time Healthcare Monitors: Progress, Opportunities, and Challenges. Biosensors, 2022, 12, 517.	2.3	18
67	Shell-mediated control of surface chemistry of highly stoichiometric magnetite nanoparticles. Nanoscale, 2020, 12, 13626-13636.	2.8	17
68	Magnetic Vortex and Hyperthermia Suppression in Multigrain Iron Oxide Nanorings. Applied Sciences (Switzerland), 2020, 10, 787.	1.3	17
69	Role of Magnetic Anisotropy on the Hyperthermia Efficiency in Spherical $\text{Fe}_{3-x}\text{Co}_x\text{O}_4$ ( $x = 0 \leq x \leq 1$ ) Nanoparticles. Applied Sciences (Switzerland), 2021, 11, 930.	1.3	17
70	Light-Controlled Room Temperature Ferromagnetism in Vanadium-Doped Tungsten Disulfide Semiconducting Monolayers. Advanced Electronic Materials, 2021, 7, 2100030.	2.6	17
71	Formation of tree-like and vortex magnetic domains of nanocrystalline $\text{Fe}_{1-x}\text{Si}_x$ in $\text{La}_{1-x}\text{Fe}_x\text{Si}$ ribbons during rapid solidification and subsequent annealing. Journal of Alloys and Compounds, 2016, 669, 205-209.	2.8	15
72	Enhanced Curie temperature and cooling efficiency in melt-extracted $\text{Gd}_{50}(\text{Co}_{69.25}\text{Fe}_{4.25}\text{Si}_{13}\text{B}_{13.5})_{50}$ microwires. Journal of Alloys and Compounds, 2017, 708, 678-684.	2.8	13

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73	Influences of annealing and wire geometry on the giant magnetoimpedance effect in a glass-coated microwire LC-resonator. <i>Journal Physics D: Applied Physics</i> , 2007, 40, 4582-4585.	1.3	12
74	Magnetocaloric effect and critical behavior in melt-extracted $Gd_{60}Co_{15}Al_{25}$ microwires. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1905-1910.	0.8	12
75	New DyHoCo medium entropy amorphous microwires of large magnetic entropy change. <i>Journal of Alloys and Compounds</i> , 2020, 837, 155431.	2.8	12
76	Iron Oxide Nanorings and Nanotubes for Magnetic Hyperthermia: The Problem of Intraparticle Interactions. <i>Nanomaterials</i> , 2021, 11, 1380.	1.9	12
77	Influence of electrodeposition parameters on the magnetic and magneto-impedance properties of CoP/Cu wires. <i>Physica B: Condensed Matter</i> , 2014, 442, 16-20.	1.3	11
78	Large magnetic entropy change above 300K in a $La_{0.7}Ca_{0.2}Sr_{0.1}MnO_3$ single crystal. <i>Journal of Magnetism and Magnetic Materials</i> , 2005, 290-291, 665-668.	1.0	10
79	Transverse Susceptibility as a Biosensor for Detection of Au-Fe <sub>3</sub> O <sub>4</sub> Nanoparticle-Embedded Human Embryonic Kidney Cells. <i>Sensors</i> , 2013, 13, 8490-8500.	2.1	10
80	Composite electroplating to enhance the GMI output stability of melt-extracted wires. <i>Materials and Design</i> , 2016, 96, 251-256.	3.3	10
81	A perspective on two-dimensional van der Waals opto-spin-caloritronics. <i>Applied Physics Letters</i> , 2021, 119, .	1.5	10
82	Valve behavior of giant magnetoimpedance in field-annealed $Co_{70}Fe_{5}Si_{15}Nb_{2.2}Cu_{0.8}B_7$ amorphous ribbon. <i>Journal of Applied Physics</i> , 2005, 97, 10M108.	1.1	9
83	Advanced Magnetic Microwires as Sensing Elements for LC-Resonant-Type Magnetoimpedance Sensors: A Comprehensive Review. <i>Journal of Superconductivity and Novel Magnetism</i> , 2012, 25, 181-195.	0.8	9
84	Magnetic Interactions and Magnetocaloric Effect in $(La_{0.5}Pr_{0.5})_{0.6}Ba_{0.4}MnO_3$ : Effect of A-Site Codoping. <i>Journal of Electronic Materials</i> , 2020, 49, 2596-2607.	1.0	9
85	Electrocaloric effect enhancement in compositionally graded ferroelectric thin films driven by a needle-to-vortex domain structure transition. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 255307.	1.3	9
86	Structure and magnetic properties of $Gd_4(Mn_{0.05}Sb_{0.95})_3$ . <i>Physica B: Condensed Matter</i> , 2003, 327, 307-310.	1.3	8
87	Neutron irradiation effect on permeability and magnetoimpedance of amorphous and nanocrystalline magnetic materials. <i>Physical Review B</i> , 2005, 71, .	1.1	8
88	Influences of rapid annealing and substrate temperature on the magnetic properties of Co-Fe-V films. <i>Journal of Applied Physics</i> , 2006, 99, 08F105.	1.1	8
89	Spin dynamics and magnetic frustration effects in $La_{1-x}Sr_xCoO_3$ ( $0 < x < 1/2$ ) compounds. <i>Journal of Applied Physics</i> , 2005, 97, 10A509.	1.1	7
90	Very large magnetoimpedance effect in a glass-coated microwire LC-resonator. <i>Physica B: Condensed Matter</i> , 2007, 395, 88-92.	1.3	7

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91	Strain-modulated helimagnetism and emergent magnetic phase diagrams in highly crystalline MnP nanorod films. <i>Physical Review B</i> , 2021, 103, .	1.1	6
92	Near-surface magnetic properties of CoFeAlO thin films. <i>Solid State Communications</i> , 2005, 135, 721-724.	0.9	5
93	A Study of Giant Magnetoimpedance Effect and Magnetic Response in Micro-patterned F/Ag/F Magnetic Ribbon Structures (F=Co-rich Amorphous Ribbon). <i>Journal of Superconductivity and Novel Magnetism</i> , 2012, 25, 1133-1138.	0.8	5
94	Competing magnetic interactions and emergent phase diagrams in double perovskite $Y_2Ni_xCo_{1-x}MnO_6$ . <i>Journal of Alloys and Compounds</i> , 2021, 888, 161624.	2.8	5
95	Entangled core/shell magnetic structure driven by surface magnetic symmetry-breaking in $Cr_2O_3$ nanoparticles. <i>Journal of Materials Chemistry C</i> , 2022, 10, 1798-1807.	2.7	5
96	Thermal Generation of Spin Current and Magnon Propagation Length in Compensated Ferrimagnetic $Gd_0.7Fe_{0.3}$ Thin Films. <i>IEEE Transactions on Magnetics</i> , 2022, 58, 1-5.	1.2	5
97	EXAFS and EPR study of $La_{0.6}Sr_{0.2}Ca_{0.2}MnO_3$ and $La_{0.6}Sr_{0.2}Ba_{0.2}MnO_3$ . <i>Physica B: Condensed Matter</i> , 2003, 327, 183-186.	1.3	4
98	Magnetic anomalies associated with domain wall freezing and coupled electron hopping in magnetite nanorods. <i>Journal of Magnetism and Magnetic Materials</i> , 2021, 522, 167564.	1.0	4
99	Competing ferromagnetic and antiferromagnetic interactions drive the magnetocaloric tunability in $Gd_{55}Co_{30}Ni_xAl_{15-x}$ microwires. <i>Journal of Alloys and Compounds</i> , 2022, 907, 164328.	2.8	4
100	Optimizing the Nano-structure of Magnetic Micro-wires for Multifunctional Macro-composites. , 2007, , .		3
101	Hollow Magnetic Nanoparticles. <i>Springer Series in Materials Science</i> , 2021, , 137-158.	0.4	3
102	Influence of Measurement Parameters on Giant Magnetoimpedance. <i>Engineering Materials and Processes</i> , 2016, , 57-64.	0.2	2
103	A Novel Magnetic Respiratory Sensor for Human Healthcare. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 3585.	1.3	2
104	Magnetoimpedance-Based Probe of Various Concentrations of Corrosive Chemicals. <i>IEEE Transactions on Magnetics</i> , 2014, 50, 1-4.	1.2	1
105	Giant Magnetoimpedance Sensors and Their Applications. <i>Engineering Materials and Processes</i> , 2016, , 99-117.	0.2	1
106	Probing the temperature-dependent magnetic anisotropy and longitudinal spin Seebeck effect in $Y_3Fe_5O_{12}$ . <i>AIP Advances</i> , 2017, 7, 055912.	0.6	1
107	Low-field magnetocaloric effect in $Pr_{1-x}Pb_xMnO_3$ ( $0.1 \leq x \leq 0.5$ ) perovskites. , 2005, , .		0
108	Longitudinal and transverse incremental permeability of $Co_{19.35}Fe_{53.28}Hf_{7.92}O_{19.35}$ films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 4117-4120.	0.8	0

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109	Domain Structure and Properties of GMI Materials. Engineering Materials and Processes, 2016, , 21-37.	0.2	0
110	Microwave Tunable Properties of Microwire Composites. Engineering Materials and Processes, 2016, , 143-200.	0.2	0
111	Microwire-Based Metacomposites. Engineering Materials and Processes, 2016, , 221-245.	0.2	0
112	Influence of Processing Parameters on GMI. Engineering Materials and Processes, 2016, , 65-86.	0.2	0
113	Selection of GMI Wires for Sensor Applications. Engineering Materials and Processes, 2016, , 87-98.	0.2	0
114	Microwave Absorption Behaviour. Engineering Materials and Processes, 2016, , 201-220.	0.2	0
115	Soft Ferromagnetic Microwires with Excellent Inductive Heating Properties for Clinical Hyperthermia Applications. Springer Series in Materials Science, 2017, , 151-167.	0.4	0