Tian-Ling Ren

List of Publications by Citations

242 papers	7,885 citations	43 h-index	83 g-index
300 ext. papers	9,854 ext. citations	6.9 avg, IF	6.1 L-index

#	Paper	IF	Citations
242	Carbonized Silk Fabric for Ultrastretchable, Highly Sensitive, and Wearable Strain Sensors. *Advanced Materials*, **2016**, 28, 6640-8	24	584
241	Graphene-Paper Pressure Sensor for Detecting Human Motions. *ACS Nano*, **2017**, 11, 8790-8795	16.7	381
240	Epidermis Microstructure Inspired Graphene Pressure Sensor with Random Distributed Spinosum for High Sensitivity and Large Linearity. *ACS Nano*, **2018**, 12, 2346-2354	16.7	361
239	A graphene-based resistive pressure sensor with record-high sensitivity in a wide pressure range. *Scientific Reports*, **2015**, 5, 8603	4.9	329
238	Scalable fabrication of high-performance and flexible graphene strain sensors. *Nanoscale*, **2014**, 6, 699-705	7.7	287
237	Flexible, Highly Sensitive, and Wearable Pressure and Strain Sensors with Graphene Porous Network Structure. *ACS Applied Materials & Interfaces*, **2016**, 8, 26458-26462	9.5	285
236	Graphene Textile Strain Sensor with Negative Resistance Variation for Human Motion Detection. *ACS Nano*, **2018**, 12, 9134-9141	16.7	284
235	An intelligent artificial throat with sound-sensing ability based on laser induced graphene. *Nature Communications*, **2017**, 8, 14579	17.4	275
234	Extremely Low Operating Current Resistive Memory Based on Exfoliated 2D Perovskite Single Crystals for Neuromorphic Computing. *ACS Nano*, **2017**, 11, 12247-12256	16.7	201
233	Graphene Dynamic Synapse with Modulatable Plasticity. *Nano Letters*, **2015**, 15, 8013-9	11.5	180
232	Multilayer Graphene Epidermal Electronic Skin. *ACS Nano*, **2018**, 12, 8839-8846	16.7	180
231	Wearable humidity sensor based on porous graphene network for respiration monitoring. *Biosensors and Bioelectronics*, **2018**, 116, 123-129	11.8	172
230	Graphene-on-paper sound source devices. *ACS Nano*, **2011**, 5, 4878-85	16.7	164
229	Graphene/semiconductor heterojunction solar cells with modulated antireflection and graphene work function. *Energy and Environmental Science*, **2013**, 6, 108-115	35.4	134
228	Novel field-effect Schottky barrier transistors based on graphene-MoS2 heterojunctions. *Scientific Reports*, **2014**, 4, 5951	4.9	115
227	Monitoring oxygen movement by Raman spectroscopy of resistive random access memory with a graphene-inserted electrode. *Nano Letters*, **2013**, 13, 651-7	11.5	106
226	A spectrally tunable all-graphene-based flexible field-effect light-emitting device. *Nature Communications*, **2015**, 6, 7767	17.4	97

225	Cost-effective, transfer-free, flexible resistive random access memory using laser-scribed reduced graphene oxide patterning technology. *Nano Letters*, **2014**, 14, 3214-9	11.5	93
224	Enhanced photovoltaic properties in graphene/polycrystalline BiFeO3/Pt heterojunction structure. *Applied Physics Letters*, **2011**, 99, 132904	3.4	91
223	High performance flexible strain sensor based on self-locked overlapping graphene sheets. *Nanoscale*, **2016**, 8, 20090-20095	7.7	87
222	Simultaneously Detecting Subtle and Intensive Human Motions Based on a Silver Nanoparticles Bridged Graphene Strain Sensor. *ACS Applied Materials & Interfaces*, **2018**, 10, 3948-3954	9.5	85
221	Graphene earphones: entertainment for both humans and animals. *ACS Nano*, **2014**, 8, 5883-90	16.7	85
220	Wafer-scale integration of graphene-based electronic, optoelectronic and electroacoustic devices. *Scientific Reports*, **2014**, 4, 3598	4.9	84
219	Triode-Mimicking Graphene Pressure Sensor with Positive Resistance Variation for Physiology and Motion Monitoring. *ACS Nano*, **2020**, 14, 10104-10114	16.7	79
218	Photoelectric Synaptic Plasticity Realized by 2D Perovskite. *Advanced Functional Materials*, **2019**, 29, 1902538	15.6	77
217	Self-adapted and tunable graphene strain sensors for detecting both subtle and large human motions. *Nanoscale*, **2017**, 9, 8266-8273	7.7	76
216	Single-layer graphene sound-emitting devices: experiments and modeling. *Nanoscale*, **2012**, 4, 2272-7	7.7	76
215	A miniaturized microbial fuel cell with three-dimensional graphene macroporous scaffold anode demonstrating a record power density of over 10,000 W m(-3) . *Nanoscale*, **2016**, 8, 3539-47	7.7	71
214	Graphene based Schottky junction solar cells on patterned silicon-pillar-array substrate. *Applied Physics Letters*, **2011**, 99, 233505	3.4	68
213	High-performance graphene-based flexible heater for wearable applications. *RSC Advances*, **2017**, 7, 27001-27006	3.7	66
212	A pressure sensing system for heart rate monitoring with polymer-based pressure sensors and an anti-interference post processing circuit. *Sensors*, **2015**, 15, 3224-35	3.8	57
211	An ultrasensitive strain sensor with a wide strain range based on graphene armour scales. *Nanoscale*, **2018**, 10, 11524-11530	7.7	57
210	Ultra-High Sensitive NO Gas Sensor Based on Tunable Polarity Transport in CVD-WS/IGZO p-N Heterojunction. *ACS Applied Materials & Interfaces*, **2019**, 11, 40850-40859	9.5	55
209	Simultaneous synthesis and integration of two-dimensional electronic components. *Nature Electronics*, **2019**, 2, 164-170	28.4	54
208	Ultrafast Photodetector by Integrating Perovskite Directly on Silicon Wafer. *ACS Nano*, **2020**, 14, 2860-2868	7	52

207	Wearable Electronics Based on 2D Materials for Human Physiological Information Detection. *Small*, **2020**, 16, e1901124	11	52
206	Graphene-based wearable sensors. *Nanoscale*, **2019**, 11, 18923-18945	7.7	50
205	Enhanced dielectric and multiferroic properties of single-phase Y and Zr co-doped BiFeO3 ceramics. *Journal of Applied Physics*, **2013**, 114, 154103	2.5	47
204	Observation of a giant two-dimensional band-piezoelectric effect on biaxial-strained graphene. *NPG Asia Materials*, **2015**, 7, e154-e154	10.3	46
203	A Wearable Skinlike Ultra-Sensitive Artificial Graphene Throat. *ACS Nano*, **2019**, 13, 8639-8647	16.7	45
202	Transparent, flexible, ultrathin sound source devices using Indium Tin oxide films. *Applied Physics Letters*, **2011**, 99, 043503	3.4	45
201	Multifunctional and high-performance electronic skin based on silver nanowires bridging graphene. *Carbon*, **2020**, 156, 253-260	10.4	45
200	A super flexible and custom-shaped graphene heater. *Nanoscale*, **2017**, 9, 14357-14363	7.7	44
199	Controllable thermal rectification realized in binary phase change composites. *Scientific Reports*, **2015**, 5, 8884	4.9	43
198	Flexible CNT-array double helices Strain Sensor with high stretchability for Motion Capture. *Scientific Reports*, **2015**, 5, 15554	4.9	43
197	All-Inorganic Perovskite Nanowires-InGaZnO Heterojunction for High-Performance Ultraviolet-Visible Photodetectors. *ACS Applied Materials & Interfaces*, **2018**, 10, 7231-7238	9.5	40
196	In Situ Tuning of Switching Window in a Gate-Controlled Bilayer Graphene-Electrode Resistive Memory Device. *Advanced Materials*, **2015**, 27, 7767-74	24	40
195	Long-Term Depression Mimicked in an IGZO-Based Synaptic Transistor. *IEEE Electron Device Letters*, **2017**, 38, 191-194	4.4	39
194	Growth and Raman spectra of single-crystal trilayer graphene with different stacking orientations. *ACS Nano*, **2014**, 8, 10766-73	16.7	39
193	X-Ray Detector Based on All-Inorganic Lead-Free Cs2AgBiBr6 Perovskite Single Crystal. *IEEE Transactions on Electron Devices*, **2019**, 66, 2224-2229	2.9	38
192	Heterostructured graphene quantum dot/WSe2/Si photodetector with suppressed dark current and improved detectivity. *Nano Research*, **2018**, 11, 3233-3243	10	38
191	Flexible, ultrathin, and transparent sound-emitting devices using silver nanowires film. *Applied Physics Letters*, **2011**, 99, 253507	3.4	37
190	Interface Engineering with MoS -Pd Nanoparticles Hybrid Structure for a Low Voltage Resistive Switching Memory. *Small*, **2018**, 14, 1702525	11	37

189	A high performance triboelectric nanogenerator for self-powered non-volatile ferroelectric transistor memory. *Nanoscale*, **2015**, 7, 17306-11	7.7	36
188	Multifunctional Graphene Microstructures Inspired by Honeycomb for Ultrahigh Performance Electromagnetic Interference Shielding and Wearable Applications. *ACS Nano*, **2021**, 15, 8907-8918	16.7	36
187	Graphene FET Array Biosensor Based on ssDNA Aptamer for Ultrasensitive Hg Detection in Environmental Pollutants. *Frontiers in Chemistry*, **2018**, 6, 333	5	34
186	Influence of La and Mn dopants on the current-voltage characteristics of BiFeO3/ZnO heterojunction. *Journal of Applied Physics*, **2012**, 111, 074101	2.5	34
185	A flexible, transparent and ultrathin single-layer graphene earphone. *RSC Advances*, **2015**, 5, 17366-17371	3.7	31
184	Efficient and Reversible Electron Doping of Semiconductor-Enriched Single-Walled Carbon Nanotubes by Using Decamethylcobaltocene. *Scientific Reports*, **2017**, 7, 6751	4.9	29
183	Flexible Two-Dimensional TiC MXene Films as Thermoacoustic Devices. *ACS Nano*, **2019**, 13, 12613-12620	16.7	28
182	Temperature Control of P(VDF-TrFE) Copolymer Thin Films. *Integrated Ferroelectrics*, **2013**, 141, 187-194	0.8	28
181	A Review on Bacteriorhodopsin-Based Bioelectronic Devices. *Sensors*, **2018**, 18,	3.8	27
180	Resistive switching behavior in diamond-like carbon films grown by pulsed laser deposition for resistance switching random access memory application. *Journal of Applied Physics*, **2012**, 111, 084501	2.5	27
179	A Ferroelectric Thin Film Transistor Based on Annealing-Free HfZrO Film. *IEEE Journal of the Electron Devices Society*, **2017**, 5, 378-383	2.3	26
178	Highly Transparent and Sensitive Graphene Sensors for Continuous and Non-invasive Intraocular Pressure Monitoring. *ACS Applied Materials & Interfaces*, **2020**, 12, 18375-18384	9.5	25
177	Static behavior of a graphene-based sound-emitting device. *Nanoscale*, **2012**, 4, 3345-9	7.7	25
176	Ultra-sensitive and plasmon-tunable graphene photodetectors for micro-spectrometry. *Nanoscale*, **2018**, 10, 20013-20019	7.7	25
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173	Piezoelectric and ferroelectric films for microelectronic applications. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2003**, 99, 159-163	3.1	24
172	Coherent Generation of Photo-Thermo-Acoustic Wave from Graphene Sheets. *Scientific Reports*, **2015**, 5, 10582	4.9	23

171	Tunable graphene oxide reduction and graphene patterning at room temperature on arbitrary substrates. *Carbon*, **2016**, 109, 173-181	10.4	23
170	Light-Enhanced Ion Migration in Two-Dimensional Perovskite Single Crystals Revealed in Carbon Nanotubes/Two-Dimensional Perovskite Heterostructure and Its Photomemory Application. *ACS Central Science*, **2019**, 5, 1857-1865	16.8	23
169	Poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate)-based organic, ultrathin, and transparent sound-emitting device. *Applied Physics Letters*, **2011**, 99, 233503	3.4	23
168	Locally hydrazine doped WSe p-n junction toward high-performance photodetectors. *Nanotechnology*, **2018**, 29, 015203	3.4	22
167	Multifunctional Mechanical Sensors for Versatile Physiological Signal Detection. *ACS Applied Materials & Interfaces*, **2018**, 10, 44173-44182	9.5	22
166	Substrate-Free Multilayer Graphene Electronic Skin for Intelligent Diagnosis. *ACS Applied Materials & Interfaces*, **2020**, 12, 49945-49956	9.5	21
165	A reduced graphene oxide sound-emitting device: a new use for Joule heating. *RSC Advances*, **2013**, 3, 17672	3.7	20
164	Structural, ferroelectric, dielectric, and magnetic properties of BiFeO3/Bi3.15Nd0.85Ti3O12 multilayer films derived by chemical solution deposition. *Journal of Applied Physics*, **2009**, 105, 084109	2.5	20
163	Investigation of the improved performance in a graphene/polycrystalline BiFeO3/Pt photovoltaic heterojunction: Experiment, modeling, and application. *Journal of Applied Physics*, **2012**, 112, 054103	2.5	20
162	A contact lens promising for non-invasive continuous intraocular pressure monitoring.. *RSC Advances*, **2019**, 9, 5076-5082	3.7	20
161	High-Quality Single Crystal Perovskite for Highly Sensitive X-Ray Detector. *IEEE Electron Device Letters*, **2020**, 41, 256-259	4.4	19
160	Flexible graphene sound device based on laser reduced graphene. *Applied Physics Letters*, **2017**, 111, 103104	3.4	18
159	Stable InSe transistors with high-field effect mobility for reliable nerve signal sensing. *Npj 2D Materials and Applications*, **2019**, 3,	8.8	18
158	Graphene-Based Devices for Thermal Energy Conversion and Utilization. *Advanced Functional Materials*, **2020**, 30, 1903888	15.6	18
157	Vertical MoS transistors with sub-1-nm gate lengths.. *Nature*, **2022**, 603, 259-264	50.4	18
156	Two-Mode MoS Filament Transistor with Extremely Low Subthreshold Swing and Record High On/Off Ratio. *ACS Nano*, **2019**, 13, 2205-2212	16.7	17
155	Negative Capacitance Oxide Thin-Film Transistor With Sub-60 mV/Decade Subthreshold Swing. *IEEE Electron Device Letters*, **2019**, 40, 826-829	4.4	17
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153	Hybrid graphene/cadmium-free ZnSe/ZnS quantum dots phototransistors for UV detection. *Scientific Reports*, **2018**, 8, 5107	4.9	16
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151	Fabrication and Characterization of a Novel Si Line Tunneling TFET With High Drive Current. *IEEE Journal of the Electron Devices Society*, **2020**, 8, 336-340	2.3	15
150	Unipolar to ambipolar conversion in graphene field-effect transistors. *Applied Physics Letters*, **2012**, 101, 253505	3.4	15
149	Flexible Quasi-van der Waals Ferroelectric Hafnium-Based Oxide for Integrated High-Performance Nonvolatile Memory. *Advanced Science*, **2020**, 7, 2001266	13.6	15
148	A Flexible 360-Degree Thermal Sound Source Based on Laser Induced Graphene. *Nanomaterials*, **2016**, 6,	5.4	15
147	Proton Conductor Gated Synaptic Transistor Based on Transparent IGZO for Realizing Electrical and UV Light Stimulus. *IEEE Journal of the Electron Devices Society*, **2019**, 7, 38-45	2.3	15
146	Effects of anode materials on resistive characteristics of NiO thin films. *Applied Physics Letters*, **2013**, 102, 042901	3.4	14
145	Intelligent and Multifunctional Graphene Nanomesh Electronic Skin with High Comfort. *Small*, **2021** , e2104810	11	14
144	A Low Input Current and Wide Conversion Ratio Buck Regulator with 75% Efficiency for High-Voltage Triboelectric Nanogenerators. *Scientific Reports*, **2016**, 6, 19246	4.9	14
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141	Controlled Growth of Bilayer-MoS2 Films and MoS2-Based Field-Effect Transistor (FET) Performance Optimization. *Advanced Electronic Materials*, **2018**, 4, 1700524	6.4	13
140	Surface acoustic wave characteristics based on c-axis (006) LiNbO3/diamond/silicon layered structure. *Applied Physics Letters*, **2011**, 99, 022109	3.4	13
139	Compact, Flexible, and Transparent Antennas Based on Embedded Metallic Mesh for Wearable Devices in 5G Wireless Network. *IEEE Transactions on Antennas and Propagation*, **2021**, 69, 1864-1873	4.9	13
138	High performance photodetector based on Pd-single layer MoS2 Schottky junction. *Applied Physics Letters*, **2016**, 109, 201904	3.4	13
137	High Performance 2D Perovskite/Graphene Optical Synapses as Artificial Eyes **2018**,		13
136	Graphene-Based Thermoacoustic Sound Source. *ACS Nano*, **2020**, 14, 3779-3804	16.7	12

135	A Graphene-Based Filament Transistor with Sub-10 mVdec−1 Subthreshold Swing. *Advanced Electronic Materials*, **2018**, 4, 1700608	6.4	12
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133	Characteristics of Pt/BiFeO3/TiO2/Si capacitors with TiO2 layer formed by liquid-delivery metal organic chemical vapor deposition. *Applied Physics Letters*, **2010**, 97, 172901	3.4	12
132	Au Nanoparticles-Decorated Surface Plasmon Enhanced ZnO Nanorods Ultraviolet Photodetector on Flexible Transparent Mica Substrate. *IEEE Journal of the Electron Devices Society*, **2019**, 1-1	2.3	12
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130	A point acoustic device based on aluminum nanowires. *Nanoscale*, **2016**, 8, 5516-25	7.7	11
129	Graphene-Based Multifunctional Textile for Sensing and Actuating. *ACS Nano*, **2021**,	16.7	11
128	Wearable Strain Sensors: Carbonized Silk Fabric for Ultrastretchable, Highly Sensitive, and Wearable Strain Sensors (Adv. Mater. 31/2016). *Advanced Materials*, **2016**, 28, 6639	24	11
127	Two-stage amplification of an ultrasensitive MXene-based intelligent artificial eardrum.. *Science Advances*, **2022**, 8, eabn2156	14.3	11
126	Laser-reconfigured MoS/ZnO van der Waals synapse. *Nanoscale*, **2019**, 11, 11114-11120	7.7	10
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124	Large-Scale and High-Density pMUT Array Based on Isolated Sol-Gel PZT Membranes for Fingerprint Imaging. *Journal of the Electrochemical Society*, **2017**, 164, B377-B381	3.9	10
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122	Negative Capacitance Black Phosphorus Transistors With Low SS. *IEEE Transactions on Electron Devices*, **2019**, 66, 1579-1583	2.9	10
121	Self-Powered MoS2–PDPP3T Heterotransistor-Based Broadband Photodetectors. *Advanced Electronic Materials*, **2018**, 5, 1800580	6.4	10
120	High-performance sound source devices based on graphene woven fabrics. *Applied Physics Letters*, **2017**, 110, 093110	3.4	9
119	Plasmon-Enhanced InGaZnO Ultraviolet Photodetectors Tuned by Ferroelectric HfZrO. *Advanced Electronic Materials*, **2019**, 5, 1900588	6.4	9
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117	Ambipolar/unipolar conversion in graphene transistors by surface doping. *Applied Physics Letters*, **2013**, 103, 193502	3.4	8
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114	High-performance single crystal CH3NH3PbI3 perovskite x-ray detector. *Applied Physics Letters*, **2021**, 118, 063506	3.4	8
113	Toward an In Situ Phosphate Sensor in Natural Waters Using a Microfluidic Flow Loop Analyzer. *Journal of the Electrochemical Society*, **2018**, 165, B737-B745	3.9	8
112	Millimeter-Scale Nonlocal Photo-Sensing Based on Single-Crystal Perovskite Photodetector. *IScience*, **2018**, 7, 110-119	6.1	8
111	MoS2 Synaptic Transistor With Tunable Weight Profile. *IEEE Transactions on Electron Devices*, **2018**, 65, 3543-3547	2.9	8
110	Reconfigurable Logic-Memory Hybrid Device Based on Ferroelectric Hf0.5Zr0.5O2. *IEEE Electron Device Letters*, **2021**, 42, 1164-1167	4.4	8
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108	Design of magnetic RF inductor in CMOS. *Tsinghua Science and Technology*, **2012**, 17, 78-83	3.4	7
107	Electrode/oxide interface engineering by inserting single-layer graphene: Application for HfOx-based resistive random access memory **2012**,		7
106	A novel ferroelectric based microphone. *Microelectronic Engineering*, **2003**, 66, 683-687	2.5	7
105	Gate-Tunable Negative Differential Resistance Behaviors in a hBN-Encapsulated BP-MoS Heterojunction. *ACS Applied Materials & Interfaces*, **2021**, 13, 26161-26169	9.5	7
104	A novel cell-scale bio-nanogenerator based on electron-ion interaction for fast light power conversion. *Nanoscale*, **2018**, 10, 526-532	7.7	7
103	Low-Voltage Unipolar Inverter Based on Top-Gate Electric-Double-Layer Thin-Film Transistors Gated by Silica Proton Conductor. *IEEE Electron Device Letters*, **2017**, 38, 875-878	4.4	6
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86	Black phosphorus junctions and their electrical and optoelectronic applications. *Journal of Semiconductors*, **2021**, 42, 081001	2.3	5
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84	A Better Zn-Ion Storage Device: Recent Progress for Zn-Ion Hybrid Supercapacitors.. *Nano-Micro Letters*, **2022**, 14, 64	19.5	5
83	Lower Power, Better Uniformity, and Stability CBRAM Enabled by Graphene Nanohole Interface Engineering. *IEEE Transactions on Electron Devices*, **2020**, 67, 984-988	2.9	4
82	Modulation Effect of Lead Zirconate Titanate for Zinc Oxide Channel Resistance in Ferroelectric Field Effect Transistor. *Ferroelectrics*, **2011**, 421, 92-97	0.6	4

81	NOVEL DEVICE DESIGN FOR AN ULTRASONIC RANGING SYSTEM. *Integrated Ferroelectrics*, **2009**, 105, 53-65	0.8	4
80	AN INNOVATED PROCESS OF Pt/PbTiO3/PbZr0.3Ti0.7O3/PbTiO3/Pt INTEGRATED FERROELECTRIC CAPACITORS FOR FeRAM. *Integrated Ferroelectrics*, **2007**, 89, 3-11	0.8	4
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76	The trend of 2D transistors toward integrated circuits: Scaling down and new mechanisms.. *Advanced Materials*, **2022**, e2201916	24	4
75	Graphene based Wearable Sensors for Healthcare **2019**,		3
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73	Fabrication and Characterization of Ferroelectric HfZrO-based Synaptic Transistors with Multi-state Plasticity **2020**,		3
72	Field effect properties of single-layer MoS2(1□)Se2x nanosheets produced by a one-step CVD process. *Journal of Materials Science*, **2018**, 53, 14447-14455	4.3	3
71	Flexible and large-area sound-emitting device using reduced graphene oxide **2013**,		3
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69	A metrology of silicon film thermal conductivity using micro-Raman spectroscopy **2010**,		3
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67	Withdrawal of "Fabrication and Properties of $ hbox{Pt}/hbox{Bi}_{3.15}hbox{Nd}_{0.85}hbox{Ti}_{3}hbox{O}_{12}/hbox{HfO}_{2}/hbox{Si}$ Structure for Ferroelectric DRAM (FEDRAM) FET". *IEEE Electron Device Letters*, **2009**, 30, 1111-1111	4.4	3
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