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| **Title** | Prof./Dr. | **Name** | Lin Dong |  |
| **Subject** | Condensed matter physics | **Research Interest** | Piezophototronic low-dimensional materials & devices |
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| **Educational Background** | 1994-1998, Dept. Chemistry, Jilin University, B.S.  1998-2001, Dept. Chemistry, Jilin University, M.S.  2002-2005, State Key Lab of Luminescence & Applications, Changchun Institute of Optics, Fine Mechanics and Physics, CAS, Ph. D. | | | |
| **Working Experiences** | 2005-2008, Assistant Professor (Lecturer), School of Materials Science & Engineering, Zhengzhou University  2009-2012, Associate Professor, School of Materials Science & Engineering, Zhengzhou University  2011-2012, Visiting Scholar, Materials Science & Engineering, Georgia Institute of Technology, USA  2013-2015, Professor, School of Materials Science & Engineering, Zhengzhou University  2016-date, Professor, School of Physics & Engineering, Zhengzhou University | | | |
| **Research Projects** | Prof. Dong mainly focuses on low-dimensional optoelectronic materials and devices, piezotronic and piezo-phototronic effect enhanced/tuned device performance, self-powered nano-system, flexible and stretchable electronics. He has been the PI of several national projects and talent projects in advanced materials and luminescence including:   1. National Science Foundation of China (NSFC) Surface Project, Grant No.11674290, 2017-2020, 700,000 RMB 2. NSFC Surface Project, Grant No. 51272238, 2013-2016, 800,000 RMB 3. NSFC Youth Project, Grant No. 50902125, 2010-2012, 200,000 RMB 4. China Postdoc Foundation Special Grant No.201104371, 100,000 RMB 5. University Innovation Talents of Henan, Grant No. 13HASTIT020, 2013-2016, 600,000 RMB 6. Zhengzhou University Top Talents Project, Grant No. ZDGD13001, 2013-2017, 2,000,000 RMB | | | |
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| **Selected Publications** | 1. X. Yang, **L. Dong\***, C. Shan\*, J. Sun, N. Zhang, S. Wang, M. Jiang, B. Li, X. Xie, D. Shen, Piezo-Phototronic Effect Enhanced Electrically Pumped Lasing, ***Adv. Mater.*** 2017, 29(5), 201602832. **( IF=19.791)** 2. C. Wang+, J. Zhao+, C. Ma, J. Sun, L. Tian, X. Li, F. Li, X. Han, C. Liu, C. Shen, **L Dong\***, J. Yang\*, C. Pan\*, Detection of Non-joint Areas Tiny Strain and Anti-Interference Voice Recognition by Micro-cracked Metal Thin Film" ***Nano Energy***, 2017, 34, 578-590. **(IF=12.343)** 3. K. Liu, C. Shan\*, G. He, R. Wang, Z. Sun, Q. Liu, **L. Dong\***, D. Shen\*, Advanced encryption based on fluorescence quenching of ZnO nanoparticles, ***J. Mater. Chem. C*** 2017. DOI: 10.1039/ c7tc02095c **(IF=5.256)** 4. X. Wang, H. Zhang, **L. Dong**\*, X. Han, W. Du, J. Zhai, C. Pan, Z. L. Wang, Self-Powered High-Resolution and Pressure-Sensitive Tribo- electric Sensor Matrix for Real-Time Tactile Mapping, ***Adv. Mater.***, 2016, 28 (15), 2896-2903. **( IF=19.791)** 5. X Wang+, **L Dong+**, H Zhang, C Pan\*, Z L Wang, Recent progress in electronic skin, ***Adv. Sci.***, 2016, doi: 10.1002/ advs.201500169. **(IF=9.034，ESI Highly Cited Paper)** 6. C. Wang, D. Peng, J. Zhao, R. Bao, T. Li, L. Tian, **L. Dong\*,** C. Shen\*, C. Pan\*, CdS@SiO2 Core–Shell Electroluminescent Nanorod Arrays Based on a Metal–Insulator–Semiconductor Structure. ***Small*** 2016, 12(41), 5734-5740. **(IF=8.643)** 7. R. Bao+, C. Wang+, **L. Dong\***, C Shen, K Zhao, C Pan\*, CdS Nanorods/Organic Hybrid LED Array and the Piezo-Phototronic Effect of the Device for Pressure Mapping, ***Nanoscale***, 2016, 8(15), 8078-8082**. (IF=7.367)** 8. R Yu, C Pan, OJ Guy, **L Dong**, M Tonezzer, *Editorial*: Functional Devices for Clean Energy and Advanced Sensor Applications. ***J Nanomater*** 2016, 2. 9. X. Wang+, H. Zhang+, R. Yu, **L. Dong\*,** D. Peng, A. Zhang, Y. Zhang, H. Liu, C. Pan\*, Z.L. Wang\*, Dynamic pressure mapping of personalized handwriting by a flexible sensor matrix based on mechano- luminescence process, ***Adv. Mater.***, 2015, 27(14), 2324-2331. **(IF=19.791, ESI Highly Cited Paper)** 10. X Li, M Chen, R Yu, T Zhang, D Song, R Liang, Q Zhang, S Chen, **L Dong**, A Pan, ZL Wang\*, J Zhu\*, C Pan\*, Enhancing Light Emission of ZnO-Nanofilm/Si-Micropillar Heterostructure Arrays by Piezo-Phototronic Effect, ***Adv Mater***, 2015, 27(30): 4447-4453. **( IF=19.791)** 11. R Bao, C Wang, **L Dong\*,** R Yu, K Zhao, ZL Wang\*, C Pan\*, Flexible and Controllable Piezo-phototronic Pressure Mapping Sensor Matrix by ZnO NW/p-polymer LED Array, ***Adv. Funct. Mater.****,* 2015, 25(19), 2884-2891. **(IF=12.124)** 12. C Wang, R Bao, K Zhao, T Zhang, **L Dong\***, Caofeng Pan\*, Enhanced Emission Intensity of Vertical Aligned Flexible ZnO Nanowire/p-Polymer Hybridized LED Array by Piezo-phototronic Effect, ***Nano Energy***, 2015, 14, 364-371. **(IF=12.343)** 13. H Zhang, D Peng, W Wang, **L Dong\***, C Pan\*, Mechanically Induced Light Emission Infrared- Laser- Induced Upconversion in the Er-Doped CaZnOS Multifunctional Piezoelectric Semiconductor for Optical Pressure and Temperature Sensing, ***J. Phys. Chem. C***, 2015, 119 (50), 28136 **(IF=4.536)** 14. T Zhang, R Liang, **L Dong**, J Wang, J Xu, C Pan\*, Wavelength tunable infrared light emitting diode based on ordered ZnO nanowire/Si1-xGex alloy heterojunction, ***Nano Research***. 2015, 8(8), 2676-2685. **(IF=7.354)** 15. W Guo, X Li, M Chen, L Xu, **L Dong**, X Cao, W Tang, J Zhu, C Lin\*, C Pan\*, ZL Wang\*, Electrochemical Cathodic Protection Powered by Triboelectric Nanogenerator, ***Adv Funct Mater***, 2014, 24 (42), 6691. **(IF=12.124)** 16. M Que, W Guo, X Zhang, X Li, Q Hua, **L Dong\*,** C Pan\*, Flexible Quantum Dot-Sensitized Solar Cells Employing CoS nanorod arrays/Graphite Paper as Effective Counter Electrodes, ***J. Mater. Chem. A***, 2014, 2, 13661-13666. **(IF=8.867)** 17. G Hu, R Zhou, R Yu, **L Dong**, C Pan\*, ZL Wang\*, Piezotronic effect enhanced Schottky-contact ZnO micro/nanowire humidity sensor, ***Nano Research***, 2014, 7(7), 1083. **(IF=7.354)** 18. C. Pan, **L. Dong**, G. Zhu, S. Niu, R. Yu, Q. Yang, Y. Liu, Z.L. Wang, High-resolution electroluminescent imaging of pressure distribution using a piezoelectric nanowire LED array, ***Nature Photonics*** 2013, 7, 752-758. **(IF=37.852, ESI Highly Cited Paper)** 19. T. Shaymurat, Q. Tang, Y. Tong, **L. Dong**, Y. Liu, Gas Dielectric Transistor of CuPc Single Crystalline Nanowire for SO2 Detection down to sub ppm Levels at Room Temperature, ***Adv Mater***, 2013, 25(16), 2269–2273. **( IF=19.791)** 20. **L. Dong**+, S. Niu+, C. Pan, R. Yu, Y. Zhang, Z.L. Wang, Piezo- phototronic effect of CdSe nanowires, ***Adv. Mater.***, 2012, 24(40), 5470-5475. **( IF=19.791)** 21. R. Yu+, **L. Dong**+, C. Pan, S. Niu, H. Liu, W. Liu, S. Chua, D. Chi, Z.L. Wang, Piezotronic Effect on the Transport Properties of GaN Nanobelts for Active Flexible Electronics, ***Adv Mater***, 2012, 24(26), 3532-3537. **( IF=19.791)** 22. C. Pan+, W. Guo+, **L. Dong**+, G. Zhu, Z.L. Wang, Optical-fiber based core-shell coaxially structured hybrid cell for self-powered nanosystems, ***Adv Mater***, 2012, 24(25), 3356-3361. **( IF=19.791)** 23. C. Pan, S. Niu, Y. Ding, **L. Dong**, R. Yu, Y. Liu, G. Zhu, Z. L. Wang, Enhanced Cu2S/CdS Coaxial Nanowire Solar Cells by Piezo- Phototronic Effect, ***Nano Letters***, 2012, 12, 3302-3307. **(IF=12.712)** | | | |