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|  | Liangmin Zhang (870)972-3175  lzhang@astate.edu |  |

### Current Position

Position Title:

Current Academic Rank: Assistant Professor

Rank Since: Fall 2008

### Degrees

|  |  |
| --- | --- |
| Ph D | Experimental Condensed Matter Physics, Shandong University, Jinan, China 1996  Dissertation: Mutually Pumped Photorefractive Conjugation in Inorganic Crystals |

### Scholarly Contributions and Creative Productions

Grants

Zhang, L. (2011). Functionalization of Nanomaterials for Photovoltaic Devices. NASA EPSCoR - 172000.

Zhang, L. (2011). III-V semiconductor quatnum dots sensitized polymer thin films for solar cells. National Laboratory of Crystal Materials, China - 14000.

Zhang, L. (2011). Light Weight & Flexible Nanowire Solar Cells for NASA Applications. Arkansas Space Grant Consortium - 10000.

Zhang, L. (2011). Oxide semiconductor thin film solar cells. NASA Glenn Research Center - 19000.

Zhang, L. (2010). Organic polymer-based thin film solar cells. Arkansas State University - 3860.

Zhang, L. (2009). Molecularly self-assembled nanostructured organic thin film solar cells for space application. Arkansas NASA EPSCoR - 9987.8.

Zhang, L. (2009). Nonlinear Optical Absorption of DNA-functionalized carbon nanotubes for biosensing. Arkansas INBRE - 21211.

Journal Publications

Zhang, L. (2012). Inorganic-organic hybrid nanocomposites for photovoltaic applications. Advanced Materials Research, 571(9), 120-124.

Zhang, L. (2011). Investigation of second-harmonic generation and molecular orientation in electrostatically self-assembled thin films. Polymers, 2011(3), 1297-1309.

Zhang, L., & Engelken, R. (2011). Theoretical modeling of measured photocurrent dynamics in dye-sensitized nanostructured TiO2 solar cells. Journal of Physical Chemsitry C, 116(1), 1293-1297.

Zhang, L. (2010). Intensity Spatial Profile Analysis of a Gaussian Laser Beam at Its Waist Using an Optical Fiber System. Chinese Physics Letters, 27(5), 054207/1-054207/3.

Zhang, L. (2010). Optical Power Limiting and Nonlinear Absorption Effects in Polymer Functionalized Carbon Nanotube Thin Films. Optical Engineering, 49(6), 063801/1-063801/6.

Zhang, L., Thomas, J., Xu, J., Rougeau, B.L., Sullivan, M., Reeve, S., & Allen, S. (2010). Reversible control of third-order optical nonlinearity of DNA decorated carbon nanotube hybrids. Journal of Physical Chemistry C, 114(51), 22697-22702.

Zhang, L. (2010). Reversible control of third-order optical nonlinearity of DNA decorated carbon nanotube hybrids. Journal of Physical Chemistry C, 114(51), 22697-22702.

Zhang, L., & Allen, S. (2009). Influence of polymer structures on optical power limiting performance of single-walled crabon nanotubes. Journal of Physical Chemistry C, 113(31), 13979-13984.

Presentations

Zhang, L., & Gladwin, M. (2012). Synthesis and Characterization of Chalcopyrite-Type Nanocrystals. Arkansas INBRE.

Zhang, L. (2012). Synthesis and nonlinear optical property investigations of nanomaterials. Invited by Dr. Peter Curreri, Senior Research Scientist, NASA Marshall Space Flight Center, Alabama.

Zhang, L. (2011). Fabrication of cuprous oxide thin films for solar cells. Space Photovoltaic Research and Technolgoy Conference.

Zhang, L. (2011). Nonlinear absorption properties of carbon nanotubes and quamtum dot thin films. 14th Southeast Ultrafast Conference.

Zhang, L. (2011). Organic Semiconductors and Protein Solar Cells. Invited for.

Zhang, L. (2011). TiO2 Nanocrystal and Polymer Solar Cells. Invited for Seminar.

Zhang, L., & Thomas, J. (2010). Functionalization of carbon nanotubes for biochemical sensing. Arkansas INBRE Research Conference.

Zhang, L., Henderson, L., Shelton, J., Thompson, K., & Gao, F. (2010). Nonlinear Optical Absorption Measurements of Multilayered Ge Nanocrystals Embedded in Si3N4 Thin Films. Arkansas INBRE Research Conference.

Zhang, L. (2010). Organic semiconducting polymer-based thin film solar cells. Arkansas NSF EPSCoR Research Annual Conference.

Zhang, L. (2009). Nonlinear optical absorption of DNA-functionalized carbon nanotubes for optical biosensing. INBRE Research Conference.

### Institutional Committees

University

Department Curriculum Committee (University) Fall 2011 - Summer 2012

### Other Institutional Service

Faculty Search Committee (University) Fall 2011 - Spring 2012

(Committee Member) Faculty Search Committee (University) Fall 2011 - Summer 2012

(Committee Member) Convication callers (University) Spring 2011

(Committee Member) Faculty Search Committee (University) Fall 2010 - Spring 2011

(Committee Member) Electrical Engineering Senior Student Thesis Committee (University) Fall 2010 - Summer 2012

### Professional Service

Reviewer, Journal Article, American Chemical Society Summer 2012

Reviewer, Journal Article, Elesevier Publisher Summer 2012

Reviewer, Journal Article, Elsevier Publisher Summer 2012

Reviewer, Journal Article, Elsevier Publisher Summer 2012

Reviewer, Journal Article, Journal of Physical Chemistry C Fall 2011

Reviewer, Journal Article, journal of Optics & Laser Technology Fall 2011

Reviewer, Journal Article, ACS Applied Materials & Interfaces Fall 2011

Reviewer, Journal Article, Journal of Nanotechnology Summer 2011

Member, Editoral Board of International Journal of Emerging Sciences Summer 2011 - Summer 2012

Reviewer, Journal Article, Journal of Inorganic and Organicmetallic Polymers and Materials Spring 2011

Reviewer, Journal Article, Journal of Nano Education Spring 2011

Committee Member, 2009 INBRE Conference Fall 2009

### Teaching

Fall 2008 Courses:

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| PHYS 2044 001 - University Physics II |

Spring 2009 Courses:

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| PHYS 2044 001 - University Physics II |

Fall 2009 Courses:

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| --- |
| PHYS 2044 001 - University Physics II |

Spring 2010 Courses:

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| PHYS 2064 003 - General Physics II |

Summer 2010 Courses:

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| PHYS 2064 001 - General Physics II |

Fall 2010 Courses:

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| PHYS 2044 001 - University Physics II |

Spring 2011 Courses:

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| PHYS 2064 003 - General Physics II |

Fall 2011 Courses:

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| --- |
| PHYS 2044 001 - University Physics II |

Spring 2012 Courses:

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| --- |
| PHYS 3203 001 - Electromagnetic Theory |

Fall 2012 Courses:

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| --- |
| CHEM 6273 001 - SYNTHESIZE NANOMATERIALS |
| PHYS 2034 001 - UNIVERSITY PHYSICS I |
| PHYS 2034 002 - UNIVERSITY PHYSICS I |