Biography:

Name：Zhen Yang
Gender: Male
Nationality：China
Major：Electronic science and technology
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Research interests:

RF MEMS technique,
Thin film electronic materials and devices
Micro sensor and microsystem
Magnetic sensors
Biosensors

Education:

Sep. 2011-Apr. 2016 Ph.D. in electronic science and technology (Supervisor: Yong Zhou)
School of electronic information and electrical engineering, Shanghai Jiao Tong University, Shanghai, China
Sep. 2008-Jun. 2011 M.S. in Materials processing engineering (Supervisor: De-hong Lu)
School of Materials Science and engineering, Kunming University of Science and Technology, Kunming, China
Sep. 2004-Jun. 2008 B.S. in Material Formation and Control Engineering Program (Supervisor: Feng Guan)
School of Mechanical Engineering, Yangtze University, Jingzhou, China

Work experience:

May.2016-present College of Physics and Electronic Engineering Xinyang Normal University, Associate professor
Innovation-Oriented Sci-tech Group of Low Dimensional Materials and Clean Energy in Henan Province
---Prof Luo Yongsong's Research Group
Jan.2017-Aug. 2017 Southern University of Science and Technology, Visiting Assistant professor

Honors and Awards:

2004-2008 Minor award and third award for several times.
2007.08 Excellent dancer of school art league.
2007.06 University-level outstanding student cadres, University-level excellent member.
2008.06 Excellent Graduate by Yangtze University, Jingzhou, China
2011.06 Excellent Master Postgraduate by Kunming University of Science and Technology, Kunming, China.
2016.04 Excellent PhD graduates of Shanghai, Shanghai, China.
2016.05 2016 Shanghai Jiao Tong University Zhiyuan sail Award
2017.03 Nanhu Scholars Program for Young Scholars of Xinyang Normal University (XYNU)
2017.03 Outstanding doctoral dissertation of shanghai Jiao tong university

Academic activities:

2016 Southern University of Science and Technology, **Invited talk**. Study of detection assay for biomarker based on MEMS magnetic sensors
2016 Shenzhen university, **Invited talk.** Study of detection assay for biomarker based on MEMS magnetic sensors
2016 International Conference on Biomaterials, Nanomaterials and Composite Materials, 2016, Chengdu, China. **Oral presentation**
The 12th IEEE International Conference on solid-state and Integrated Circuit Technology, 2014, Guilin, China. **Oral presentation**
The 9th International Conference on Bioinformatics and Biomedical Engineering, 2015, Shanghai, China. **Oral presentation**
Shanghai Jiao Tong University twenty-two doctoral students academic forum. 2014, **Oral presentation**
Student member of China micron Nano Technology Institute.
The 11th Sino-US Symposium on NanoScience and NanoTechnology. Nanjing, China.
Senior member of Hongkong Institute of Mechanical Engineers

Reviewer for：

Materials Science and Engineering B
Physical Status Solid (a)
ACS applied materials & interface
CBNCM 2016
Journal of biotechnology
Nano research
Analytical Methods

Funding:

1. Studies on rapid and sensitive detection of cardiovascular disease biomarker based on the giant magnetoimpedance effect sensors and magnetic label (61273065)，supported by Natural Science Foundation of China.
2. A new MEMS sensors for rapid detection of food safety（2012BAK08B05), supported by National Key Technology Support Program, China.
3. Studies on detection of prostate cancer markers based on a micro fluxgate sensor（13ZR1420800), supported by Shanghai Science Foundation of China.
4. Key technique of ******，supported by civilian space programme.
5. Nanotechnology for main pathogenic microorganism in food (AgriX2015005), supported by Agri-X Foundation of shnghai jiaotong university，
6. Key technique of ******, supported by Joint research center of aerospace advanced technology, Shanghai Jiao Tong University（USCAST2015-2）
7. Key technique of ******, supported by Aerospace Support Technology Fund (15GFZ-JJ02-05)
8. Detection of salmonella typhimurium and bacillus anthracis using a giant magnetoimpedance-based biosensor. Natural Science Foundation of Henan Province (162300410233) PI
9. Start-up research grant for new faculty in XYNU PI
10 Major preparatory programme of XYNU 2016 PI

Publications:

Thesis for PH.D degree: Study of detection assay for biomarkers based on giant magnetoimpedance effect of soft magnetic materials
Journal Articles: (total citation 88 based on May. 2016)

1. **Zhen Yang**, et al, A flexible giant magnetoimpedance-based biosensor for the determination of the biomarker C-reactive protein, Microchimica Acta 2015, 182(15-16): 2411-2417 (SCI IF 4.831)
2. **Zhen Yang**, et al, Ultrasensitive detection and quantification of E. coli O157:H7 using a giant magnetoimpedance sensor in an open-surface microfluidic cavity covered with an antibody-modified gold surface. Microchimica Acta2015, 183: 1831-1837 (SCI IF 4.831)
3. Xue-Cheng Sun, **Zhen Yang** (equal contribution), et al, An innovative detecting way of Escherichia coli O157H:H7 by a micro-fluxgate-based bio-sensing system, Sensors and Actuators B: Chemical. 2015, 221: 985-992 (SCI IF 4.758)
4. **Zhen Yang**, et al, A giant magnetoimpedance-based biosensor for sensitive detection of Escherichia coli O157:H7, Biomedical Microdevices 2015, 17(1): 1-8 (SCI IF 2.227)
5. **Zhen Yang**, et al, A GMI biosensing platform based on Co-based amorphous ribbon for detection of magnetic Dynabeads. Analytical Methods. 2015, 7(16): 6883-6889 (SCI IF 1.915)
6. **Zhen Yang**, et al, A Dynabeads-labeled immunoassay based on a fluxgate biosensor for detection of biomarkers, Analytical Methods. 2015, 7, 2391 - 2398 (SCI IF 1.915)
7. **Zhen Yang**, et al, Effect of magnetic field annealing and size on the giant magnetoimpedance in micro-patterned Co-based ribbon with a meander structure, Applied Physics A. 2014, 116: 1847-1851 (SCI IF 1.444)
8. **Zhen Yang**, et al, Enhanced GMI effect in tortuous-shaped Co-based amorphous ribbons coated with graphene. Journal of Materials Science: Materials in Electronics 2016, 27(4): 3493–3498 (SCI IF 1.798)
9. **Zhen Yang**, et al, Study on the giant magnetoimpedance effect in micro-patterned Co-based amorphous ribbons with single strip structure and tortuous shape, Microsystem Technologies, 2014. 1432-1858 (SCI IF 0.974)
10. **Zhen Yang**, et al, Detection of cardiac biomarker myoglobin with an integrated giant magnetoimpedance biosensor, Biomedical Microdevices (SCI IF 2.227)
11. **Zhen Yang**, et al, Combined detection of cardiac biomarkers myoglobin and C-reactive protein by a giant magnetoimpedance-based biosensing system. Sensors and Actuators B: Chemical (SCI IF 4.758) (Under review)
12. Tao Wang, **Zhen Yang**, et al, An integrated giant magnetoimpedance biosensor for detection of biomarker, Biosensors and Bioelectronics 2014, 58: 338–344 (SCI IF 7.476)
13. Tao Wang, **Zhen Yang,** et al, Quantitative determination of magnetic beads using a magnetoimpedance-based lab-on-a-chip platform, Journal of applied physics. 2014, 115(22): 223901 (SCI IF 2.210)
14. Tao Wang, Chong Lei, **Zhen Yang**, et al, Meander-shaped magnetoimpedance sensor for measuring inhomogeneous magnetic fringe fields of NiFe films, Applied Physics Letters. 2014, (105)17: 172404 (SCI IF 3.142)
15. Jian Lei, Chong Lei, Tao Wang, **Zhen Yang**, et al, Detection of targeted carcinoembryonic antigens using a micro-fluxgate-based biosensor, Applied Physics Letters. 2013, 103: 203705 (SCI IF 3.142).
16. Jian Lei, Chong Lei, Tao Wang, **Zhen Yang**, et al, Investigation of targeted biomolecules in a micro-fluxgate-based bio-sensing system, Biomedical Microdevices. 2014, 16(2):237-43 (SCI IF 2.227)
17. Tao Wang, Yong Zhou, Chong Lei, Jian Lei, **Zhen Yang**, Development of an ingenious method for determination of Dynabeads protein A based on a giant magnetoimpedance sensor, Sensors and Actuators B: Chemical. 2013, 186: 727–733 (SCI IF 4.758)
18. Tao Wang, Yong Zhou, Chong Lei, Jian Lei, **Zhen Yang**, Ultrasensitive detection of Dynabeads protein A using the giant magnetoimpedance effect, Microchimica Acta. 2013, 180(13-14): 1211-1216 (SCI IF 4.831)
19. Tao Wang, **Zhen Yang,** et al, A giant magnetoimpedance sensor for sensitive detection of streptavidin-coupled Dynabeads, Physica Status Solid (a) 2014, 211:1389-1394 (SCI IF 1.489)
20. Yan Liu, **Zhen Yang**, et al, Improved performance of the micro planar double-axis fluxgate sensors with different magnetic core materials and structures. Microsystem Technologies. (SCI IF 0.974)
21. Chong Lei, Jian Lei, **Zhen Yang**, et al, Improved micro fluxgate sensor with double-layer Fe-based amorphous core, Microsystem Technologies. 2013, 19: 167-172 (SCI IF 0.974)
22. Chong Lei, Jian Lei, **Zhen Yang**, et al, A low power micro fluxgate sensor with improved magnetic core, Microsystem Technologies. 2013, 19: 591-598 (JCR SCI IF 0.974)
23. Jian Lei, Chong Lei, Tao Wang, **Zhen Yang** et al, A MEMS-fluxgate-based sensing system for the detection of Dynabeads, Journal of

Micromechanics and Microengineering. 2013, 23(9): 095005 (SCI IF 1.790)

24. Tao Wang, Chong Lei, **Zhen Yang**, et al, Fabrication of symmetrical meandering NiFe/Cu/NiFe film sensors and study of the effects of field direction and film thickness on giant magnetoimpedance, Microsystem Technologies. 2013, 19: 1945-1952(SCI IF 0.974)
25. Tao Wang, Chong Lei, Jian Lei, **Zhen Yang**, et al, Preparation of meander thin-film microsensor and investigation the influence of structural parameters on the giant magnetoimpedance effect, Applied Physics A. 2012, 109: 205-211 (SCI IF 1.444)
26. Chong Lei, Xue-cheng Sun, Cui Liu, Jian Lei, Tao Wang, **Zhen Yang,** et al, Improved performance of integrated solenoid fluxgate sensor chip using a bi-layer Co-based ribbon core, IEEE Sensors Journal. DOI:10.1109/JSEN.2015.2432457 (SCI IF 1.852)
27. Chong Lei, Xue-cheng Sun, Cui Liu, Jian Lei, Tao Wang, **Zhen Yang,** et al, Detection of Dynabeads in small bias magnetic field by a micro fluxgate-based sensing system, Journal of applied physics. 2014, 116: 154701 (SCI IF 2.210)

Conference article:

1. **Zhen Yang,** Yong Zhou, Chong Lei, Xue-cheng Sun, Effect of annealing orientation on the giant magnetoimpedance in micro-patterned Co-based ribbon. 12th IEEE International Conference on solid-state and Integrated Circuit Technology, 2014. (EI)
2. **Zhen Yang**, Chong Lei, Yong Zhou, Detection of C-reactive protein based on a Dynabeads-labeled sandwich immunoassay by using a GMI biosensor. The 9th International Conference on Bioinformatics and Biomedical Engineering, 2015. (EI)
3. **Zhen Yang,** Tianqi Fan, Chong Lei, A Study on giant magnetoimpedance effect in VITROVAC 6025Z micro-patterned ribbons. 2016 International Conference on Biomaterials, Nanomaterials and Composite Materials, 2016. (EI)