


姓名	张保华	性别	男	
职称	讲师	系别	电气工程系	
学位	博士（硕博连读，上海交通大学）	电话	15851842701	
E-mail	bh Zhang@njau.edu.cn			
单位地址	南京市浦口区点将台路 40 号	邮编	210031	
研究领域	<p>[1]机器视觉与光谱成像技术 [2]智能农业装备与农业信息化技术 [3]农产品、食品品质与安全无损检测技术</p>			
社会兼职	<p>[1]《Biosystems Engineering》（SCI, IF=1.997）审稿人 [2]《Computers and Electronics in Agriculture》（SCI, IF=1.892）审稿人 [3]《Postharvest Biology and Technology》（SCI, IF=2.618）审稿人 [4]《Food Research International》（SCI, IF=3.182）审稿人 [5]《Food and Bioprocess Technology》（SCI, IF=2.574）审稿人 [6]《Spectrochimica Acta Part A》（SCI, IF=2.653）审稿人 [7]《Food Analytical Methods》（SCI, IF=2.167）审稿人 [8]《Journal of Ophthalmology and Visual Sciences》审稿人 [9]《Journal of Agricultural Science and Technology》（SCI）审稿人 [10]《红外与激光工程》（EI）审稿专家 [11]《吉林大学学报（工学版）》（EI）审稿人 [12]中国机械工程学会、中国图形图像学会会员</p>			
承担项目	<p>主持课题 1 项；作为技术骨干或主研人参与课题 7 项，包括国家级课题 6 项。</p> <p>[1]南京农业大学高层次引进人才科研启动基金项目，2016/9-2019/7，主持 [2]国家科技支撑计划：苹果产地分级处理及储运品质监测装备研发与示范（项目编号：2014BAD21B01）参与 [3]国家科技支撑计划子课题：哈密瓜、香梨糖度便携式检测仪研发（项目编号：2015BAD19B03-3）参与 [4]国家自然科学基金：基于多光谱成像苹果表面缺陷快速检测方法研究（项目编号：31301236）参与 [5]国家自然科学基金：指状青霉和意大利青霉感染的早期腐烂柑橘高光谱成像快速检测方法研究（项目编号：31401283）参与 [6]国家自然科学基金（面上）：基于光谱和图像特征融合的苹果内外部多品质指标同步在线检测方法研究 参与 [7]中国博士后科学基金：鸭梨内部品质的高光谱-成像无损检测方法研究（项目编号：2012M520193）参与 [8]北京博士后科学基金：草莓内部品质近红外光无损检测方法研究（项目编号：2013ZZ-70）参与</p>			
学术成果	<p>迄今，在国内外权威学术杂志发表 SCI/EI 学术论文 36 篇，其中以第一作者发表 SCI 论文 9 篇，EI 论文 4 篇。获得国家发明专利 6 项、实用新型专利 3 项、计算机软件著作权 10 项。此外，参与 1 本英文专著章节</p>			

的撰写。

近三年主要学术论文 (SCI/EI 收录) :

- [1] **Zhang, B.**, Huang, W., Wang, C., et al. Computer vision recognition of stem and calyx in apples using near-infrared linear-array structured light and 3D reconstruction [J]. *Biosystems Engineering*, 2015, 139: 25-34. (SCI/EI, IF=1.997, JCR Q1 ☒)
- [2] **Zhang, B.**, Huang, W., Liang, G., et al. Computer vision detection of defective apples using automatic lightness correction and weighted RVM classifier [J]. *Journal of Food Engineering*, 2015, 146: 143-151. (SCI/EI, IF=3.199, JCR Q1 ☒)
- [3] **Zhang, B.**, Li, J., Fan, S., et al. Hyperspectral imaging combined with multivariate analysis and band math for detection of common defects on peaches (*Prunus persica*) [J]. *Computers & Electronics in Agriculture*, 2015, 114: 14-24. (SCI/EI, IF=1.892, JCR Q1 ☒)
- [4] **Zhang, B.**, Huang, W., Li, J., et al. Principles, developments and applications of computer vision for external quality inspection of fruits and vegetables: A review [J]. *Food Research International*, 2014, 62(62): 326-343. (SCI/EI, IF=3.182, JCR Q1 ☒)
- [5] **Zhang, B.**, Fan, S., Li, J., et al. Detection of Early Rottenness on Apples by Using Hyperspectral Imaging Combined with Spectral Analysis and Image Processing [J]. *Food Analytical Methods*, 2015, 8(8): 2075-2086. (SCI, IF=2.167)
- [6] **Zhang, B.H.**, Li, J.B., Zheng, L., et al. Development of a Hyperspectral Imaging System for the Early Detection of Apple Rottenness Caused by *Penicillium* [J]. *Journal of Food Process Engineering*, 2015, 38(5): 499-509. (SCI, IF=0.745)
- [7] **Zhang, B.**, Huang, W., Li, J., et al. Detecting of Early Rottenness in Apples Using Hyperspectral Machine Vision with Effective Wavebands [J]. *Sensor Letters*, 2014, 12(12): 932-7(6). (SCI/EI, IF=0.56)
- [8] **Zhang, B.**, Li, J., Huang, W., et al. A study on spectral analysis combining with image processing for lightness correction in spherical fruits by using hyperspectral imaging; proceedings of the 2015 ASABE Annual International Meeting, F, 2015 [C]. *American Society of Agricultural and Biological Engineers*. (EI)
- [9] 张保华, 黄文倩, 李江波, 等. 基于高光谱成像技术和 MNF 检测苹果的轻微损伤 [J]. *光谱学与光谱分析*, 2014, 5): 1367-72. (SCI/EI, IF=0.29)
- [10] 张保华, 李江波, 樊书祥, 等. 高光谱成像技术在果蔬品质与安全无损检测中的原理及应用 [J]. *光谱学与光谱分析*, 2014, 10): 2743-51. (SCI/EI, IF=0.29)
- [11] 张保华, 黄文倩, 李江波, 等. 基于亮度校正和 AdaBoost 的苹果缺陷在线识别 [J]. *农业机械学报*, 2014, 45(6): 221-226. (EI)
- [12] 张保华, 黄文倩, 李江波, 等. 基于 I-RELIEF 和 SVM 的畸形马铃薯在线分选 [J]. *吉林大学学报:工学版*, 2014, 44(6): 1811-7. (EI)
- [13] 张保华, 黄文倩, 李江波, 等. 用高光谱成像和 PCA 检测苹果的伤害和早期腐烂 [J]. *红外与激光工程*, 2013, z2): 279-83. (EI)
- [14] Fan, S., **Zhang, B.**, Li, J., Huang, W., Wang, C. Effect of spectrum measurement position variation on the robustness of NIR spectroscopy models for soluble solids content of apple [J]. *Biosystems Engineering*, 2016, 143: 9-19. (SCI/EI, IF=1.997, JCR Q1 ☒)
- [15] Fan, S., **Zhang, B.**, Li, J., Liu, C., Huang, W., Tian, X. Prediction of soluble solids content of apple using the combination of spectra and textural features of hyperspectral reflectance imaging data [J]. *Postharvest Biology and Technology*, 2016, 121: 51-61. (SCI/EI, IF=2.618, JCR Q1 ☒)
- [16] Li, J., Huang, W., Zhao, C., **Zhang, B.** A comparative study for the quantitative determination of soluble solids content, pH and firmness of pears by Vis/NIR spectroscopy [J]. *Journal of Food Engineering*, 2013, 116(2):

- 324-32. (SCI/EI, IF=3.199, JCR Q1 ☒)
- [17] Li, J., Chen, L., Huang, W., Wang, Q., **Zhang, B.**, Tian, X., Fan, S., Li, B. Multispectral detection of skin defects of bi-colored peaches based on VIS-NIR hyperspectral imaging [J]. *Postharvest Biology and Technology*, 2016, 112: 121-33. (SCI/EI, IF=2.618, JCR Q1 ☒)
- [18] Fan, S., Huang, W., Guo, Z., **Zhang, B.**, Zhao, C. Prediction of soluble solids content and firmness of pears using hyperspectral reflectance imaging [J]. *Food Analytical Methods*, 2015, 8(8): 1936-46. (SCI, IF=2.167)
- [19] Li, J., **Zhang, B.**, Zhao, C., Huang, W. Qualitative Analysis of Soluble Solid Content and Firmness of Pear Based on Successive Projections Algorithm and Least Square Support Vector Machine [J]. *Sensor Letters*, 2014, 12(3): 575-80(6). (SCI/EI, IF=0.56)
- [20] Zheng, L., Zhu, D., **Zhang, B.**, Xiao, G., Wang, C., Zhao, C. Correlation Analysis of the Mechanical Property of Wheat Stalk and the Fresh Biomass [J]. *Sensor Letters*, 2014, 12(3-4): 924-927. (SCI/EI, IF=0.56)
- [21] Li, J., Huang, W., Chen, L., Fan, S., **Zhang, B.**, Guo, Z., Zhao, C. Variable Selection in Visible and Near-Infrared Spectral Analysis for Noninvasive Determination of Soluble Solids Content of 'Ya' Pear [J]. *Food Analytical Methods*, 2014, 7(9): 1891-902. (SCI, IF=2.167)
- [22] Ling, Z., Dazhou, Z., Dong, L., **Baohua, Z.**, Cheng, W., Chunjiang, Z. Winter wheat biomass estimation based on canopy spectra [J]. *International Journal of Agricultural and Biological Engineering*, 2015, 8(6): 30-6. (SCI, IF=1.007)
- [23] Qian, M., Wang, Q., Chen, L., Huang, W., Fan, S., **Zhang, B.** Penetration depth of near-infrared light in small, thin-skin watermelon [C]. *Computer and computing technologies in agriculture*, Accept. (EI)
- [24] Wang, C., Huang, W., **Zhang, B.**, Yang, J., Qian, M., Fan, S., Chen, L. Design and implementation of an automatic grading system of diced potatoes based on machine vision [C]. *Computer and computing technologies in agriculture*, Accept. (EI)
- [25] Liu, C., Wang, Q., Huang, W., Chen, L., **Zhang, B.**, Fan, S. Comparison of Raman spectroscopies for noncontact determination of carotenoids in agricultural products [C]. *Computer and computing technologies in agriculture*, Accept. (EI)
- [26] 李江波, 郭志明, 黄文倩, **张保华**, 赵春江. 应用 CARS 和 SPA 算法对草莓 SSC 含量 NIR 光谱预测模型中变量及样本筛选 [J]. *光谱学与光谱分析*, 2015, 2: 372-8. (SCI/EI, IF=0.29)
- [27] 樊书祥, 黄文倩, 郭志明, **张保华**, 赵春江, 钱曼. 苹果产地差异对可溶性固形物近红外光谱检测模型影响的研究 [J]. *分析化学*, 2015, 2: 239-44. (SCI, IF=1.131)
- [28] 樊书祥, 黄文倩, 李江波, 赵春江, **张保华**. LS-SVM 的梨可溶性固形物近红外光谱检测的特征波长筛选 [J]. *光谱学与光谱分析*, 2014, 8: 2089-93. (SCI/EI, IF=0.29)
- [29] 李斌, Ning, W., 张伟立, 赵春江, **张保华**. 基于太赫兹光谱技术的山核桃内部虫害检测初步研究 [J]. *光谱学与光谱分析*, 2014, 5: 1196-200. (SCI/EI, IF=0.29)
- [30] 肖广东, 郑玲, 董大明, 张东彦, **张保华**, 廖同庆. 基于长光程的土壤氧化亚氮排放规律的 FTIR 光谱法研究 [J]. *光谱学与光谱分析*, 2015, 11 (2015): 3063-3067. (SCI/EI, IF=0.29)
- [31] 田喜, 黄文倩, 李江波, 樊书祥, **张保华**. 基于玉米籽粒胚的高光谱图像信息检测籽粒水分含量 [J]. *光谱学与光谱分析*, 录用(SCI/EI, IF=0.29)
- [32] 钱曼, 黄文倩, 王庆艳, 樊书祥, **张保华**, 陈立平. 西瓜检测部位差异对近红外光谱可溶性固形物预测模型影响的研究 [J]. *光谱学与光谱分析*, 录用(SCI/EI, IF=0.29)
- [33] 樊书祥, 黄文倩, **张保华**, 郭志明, 赵春江. 便携式苹果糖度光谱检测仪的设计与试验 [J]. *红外与激光工程*, 2014, B12: 219-24. (EI)
- [34] 李江波, 黄文倩, **张保华**, 彭彦昆, 赵春江. 类球形水果表皮颜色变

- 化校正方法研究 [J]. 农业机械学报, 2014, 45(4): 226-230. (EI)
- [35] 黄文倩, 李江波, 张驰, **张保华**, 张百海. 高光谱成像技术和主成分分析识别玉米籽粒的胚 [J]. 农业工程学报, 2012, 28(S2): 243-7. (英文论文, EI)
- [36] 李江波, 彭彦昆, 黄文倩, **张保华**, 武继涛. 桃子表面缺陷分水岭分割方法研究 [J]. 农业机械学报, 2014, 45(8): 288-93. (EI)

近三年授权及公开的国家发明或实用新型专利:

- [1] **张保华**, 刘成良, 赵春江, 等. 水果表面缺陷检测方法. 发明专利授权号: ZL201310061313.3.
- [2] **张保华**, 刘成良, 贡亮, 等. 基于图像处理的水果分选装置. 发明专利授权号: ZL201310009241.8.
- [3] 刘成良, **张保华**, 贡亮, 等. 水果分选机可控旋转角度齿纹托盘装置. 发明专利授权号: ZL201210505918.2.
- [4] 刘成良, 李子枫, 贡亮, 苗中华, 王双园, **张保华**. 双行苗稀疏可调的半自动插秧机. 发明专利授权号: ZL201210546073.1.
- [5] **张保华**, 宋佳昊, 雷威, 等. 左右移动式机械调节系统. 发明专利公布号: CN102913320A.
- [6] 郭凯峰, **张保华**, 林昌建, 等. 双涡轮同轴相连装置. 发明专利公布号: CN102926859A.
- [7] 李子枫, 郭凯峰, **张保华**, 林昌建, 贡亮. 带有连接管的机械式容积调节装置. 发明专利授权号: ZL201210388986.5.
- [8] 林昌建, **张保华**, 郭凯峰, 等. 双压气机同轴相连装置. 实用新型专利授权号: CN202883099U.
- [9] 黄文倩, 李江波, **张保华**, 等. 基于图像处理的小型农产品分选机. 实用新型专利授权号: CN203170604U.
- [10] 武继涛, 黄文倩, 李江波, **张保华**, 等. 小型农产品分选系统. 实用新型专利授权号: CN204018236U.
- [11] 黄文倩, 李江波, **张保华**, 等. 农产品形状检测方法及其装置. 发明专利授权号: ZL201310747003.7.
- [12] 黄文倩, 李江波, **张保华**, 等. 一种水果果梗花萼的识别系统. 发明专利公布号: CN104897671A.
- [13] 黄文倩, 李江波, 武继涛, 张驰, 郭志明, 王庆艳, **张保华**, 樊书祥. 用于水果无损检测和称重卸料的果杯机构及水果处理系统. 发明专利公布号: CN104897671A.
- [14] 李斌, 陈立平, **张保华**, 等. 基于太赫兹光谱的肉类内部金属检测装置. 发明专利公布号: CN104897671A.

近三年授权的计算机软件著作权:

- [1] 软件名称: 基于近红外图像和 RGB 图像的苹果缺陷提取分析软件 V1.0. 中华人民共和国国家版权局登记号: 2013SR066007.
- [2] 软件名称: 基于图像处理的水果表皮缺陷提取分析软件 V1.0. 中华人民共和国国家版权局登记号: 2013SR100930.
- [3] 软件名称: 基于亮度校正理论的水果表皮颜色分级软件 V1.0. 中华人民共和国国家版权局登记号: 2013SR081818.
- [4] 软件名称: 受损骨骼康复情况智能诊断软件 V1.0. 中华人民共和国国家版权局登记号: 2013SR052402.
- [5] 软件名称: 基于机器视觉和动态人脸识别的智能视频监控系统软件 V1.0. 中华人民共和国国家版权局登记号: 2015SR141934.
- [6] 软件名称: 柑橘早期腐烂果荧光图像检测分析软件 V1.0. 中华人民共和国国家版权局登记号: 2016SR214133.
- [7] 软件名称: 真菌感染引起早期腐烂柑橘多光谱图像检测软件 V1.0. 中华人民共和国国家版权局登记号: 2016SR214139.
- [8] 软件名称: 基于多光谱机器视觉技术的苹果表面缺陷实时检测系统软件 V1.0. 中华人民共和国国家版权局登记号: 2016SR097609.
- [9] 软件名称: 基于机器视觉技术的苹果形状检测分析软件 V1.0. 中华人民共和国国家版权局登记号: 2016SR097616.

	<p>[10] 软件名称：玉米种子特征检测与提取系统软件 V1.0. 中华人民共和国国家版权局登记号：2016SR096598.</p> <p>专著与章节：</p> <p>[1] 《Quantitative Methods for Food Safety and Quality in the Vegetable Industry》 Chapter: Quality of vegetable products: Assessment of physical-chemical and microbiological changes in vegetables products, (In press), Springer</p>
<p>奖励荣誉</p>	<p>获得的奖励及荣誉：</p> <p>[1] 2014 年博士研究生国家奖学金（教育部）</p> <p>[2] 2013 年上海交通大学研究生优秀奖学金（上海交通大学）</p> <p>[3] 2015 年上海交通大学柳工成绩优异奖学金（上海交通大学）</p> <p>[4] 2010 年 2 月中国大学生自强之星（共青团中央、全国学联）</p> <p>[5] 2012 年第 12 届北京市青年优秀科技论文三等奖（北京市科学技术协会）</p> <p>[6] 2013、2014、2015 年国家农业信息化工程技术研究中心研究生年度考核一等奖</p>

Teaching staff/Personal information (样表)

Name	Baohua Zhang	Gender	male	
Title	Lecture	Department	Department of Electrical Engineering	
Degree	Ph.D (SJTU, 2016)	Telephone	18600554126	
E-mail	bh Zhang@njau.edu.cn			
Unit address	40 Dianjiangtai Road, Nanjing, Jiangsu, China	Post code	210031	
Research field	<p>[1] Computer vision and spectral imaging [2] Intelligent equipment and information technology in agriculture [3] Non-destructive technology for food and agricultural products</p>			
Social appointments	<p>[1] 《Biosystems Engineering》 (SCI, IF=1.997) Reviewer [2] 《Computers and Electronics in Agriculture》 (SCI, IF=1.892) Reviewer [3] 《Postharvest Biology and Technology》 (SCI, IF=2.618) Reviewer [4] 《Food Research International》 (SCI, IF=3.182) Reviewer [5] 《Food and Bioprocess Technology》 (SCI, IF=2.574) Reviewer [6] 《Spectrochimica Acta Part A》 (SCI, IF=2.653) Reviewer [7] 《Food Analytical Methods》 (SCI, IF=2.167) Reviewer [8] 《Journal of Ophthalmology and Visual Sciences》 Reviewer [9] 《Journal of Agricultural Science and Technology》 (SCI) Reviewer</p>			
Research projects	<p>[1] Scientific Research Foundation for Advanced Talents, Nanjing Agricultural University. 2016/9-2019/7 [2] National Key Technology R&D Program (Project No. 2014BAD21B01) [3] National Key Technology R&D Program (Project No. 2015BAD19B03-3) [4] The Young Scientist Fund of National Natural Science Foundation of China (Project No. 31301236) [5] The Young Scientist Fund of National Natural Science Foundation of China (Project No. 31401283)</p>			

**Academic
achievements**

Selected Recent Publications:

- [1] **Zhang, B.**, Huang, W., Wang, C., et al. Computer vision recognition of stem and calyx in apples using near-infrared linear-array structured light and 3D reconstruction [J]. *Biosystems Engineering*, 2015, 139: 25-34. (SCI/EI, IF=1.997, JCR Q1)
- [2] **Zhang, B.**, Huang, W., Liang, G., et al. Computer vision detection of defective apples using automatic lightness correction and weighted RVM classifier [J]. *Journal of Food Engineering*, 2015, 146: 143-151. (SCI/EI, IF=3.199, JCR Q1)
- [3] **Zhang, B.**, Li, J., Fan, S., et al. Hyperspectral imaging combined with multivariate analysis and band math for detection of common defects on peaches (*Prunus persica*) [J]. *Computers & Electronics in Agriculture*, 2015, 114: 14-24. (SCI/EI, IF=1.892, JCR Q1)
- [4] **Zhang, B.**, Huang, W., Li, J., et al. Principles, developments and applications of computer vision for external quality inspection of fruits and vegetables: A review [J]. *Food Research International*, 2014, 62(62): 326-343. (SCI/EI, IF=3.182, JCR Q1)
- [5] **Zhang, B.**, Fan, S., Li, J., et al. Detection of Early Rottenness on Apples by Using Hyperspectral Imaging Combined with Spectral Analysis and Image Processing [J]. *Food Analytical Methods*, 2015, 8(8): 2075-2086. (SCI, IF=2.167)
- [6] **Zhang, B.H.**, Li, J.B., Zheng, L., et al. Development of a Hyperspectral Imaging System for the Early Detection of Apple Rottenness Caused by *Penicillium* [J]. *Journal of Food Process Engineering*, 2015, 38(5): 499-509. (SCI, IF=0.745)
- [7] **Zhang, B.**, Huang, W., Li, J., et al. Detecting of Early Rottenness in Apples Using Hyperspectral Machine Vision with Effective Wavebands [J]. *Sensor Letters*, 2014, 12(12): 932-7(6). (SCI/EI, IF=0.56)
- [8] **Zhang, B.**, Li, J., Huang, W., et al. A study on spectral analysis combining with image processing for lightness correction in spherical fruits by using hyperspectral imaging; proceedings of the 2015 ASABE Annual International Meeting, F, 2015 [C]. American Society of Agricultural and Biological Engineers. (EI)
- [9] Fan, S., **Zhang, B.**, Li, J., Huang, W., Wang, C. Effect of spectrum measurement position variation on the robustness of NIR spectroscopy models for soluble solids content of apple [J]. *Biosystems Engineering*, 2016, 143: 9-19. (SCI/EI, IF=1.997, JCR Q1)
- [10] Fan, S., **Zhang, B.**, Li, J., Liu, C., Huang, W., Tian, X. Prediction of soluble solids content of apple using the combination of spectra and textural features of hyperspectral reflectance imaging data [J]. *Postharvest Biology and Technology*, 2016, 121: 51-61. (SCI/EI, IF=2.618, JCR Q1)
- [11] Li, J., Huang, W., Zhao, C., **Zhang, B.** A comparative study for the quantitative determination of soluble solids content, pH and firmness of pears by Vis/NIR spectroscopy [J]. *Journal of Food Engineering*, 2013, 116(2): 324-32. (SCI/EI, IF=3.199, JCR Q1)
- [12] Li, J., Chen, L., Huang, W., Wang, Q., **Zhang, B.**, Tian, X., Fan, S., Li, B. Multispectral detection of skin defects of bi-colored peaches based on VIS-NIR hyperspectral imaging [J]. *Postharvest Biology and Technology*, 2016, 112: 121-33. (SCI/EI, IF=2.618, JCR Q1)
- [13] Fan, S., Huang, W., Guo, Z., **Zhang, B.**, Zhao, C. Prediction of soluble solids content and firmness of pears using hyperspectral reflectance imaging [J]. *Food Analytical Methods*, 2015, 8(8): 1936-46. (SCI, IF=2.167)
- [14] Li, J., **Zhang, B.**, Zhao, C., Huang, W. Qualitative Analysis of Soluble Solid Content and Firmness of Pear Based on Successive Projections Algorithm and Least Square Support Vector Machine [J]. *Sensor Letters*,

	<p>2014, 12(3): 575-80(6). (SCI/EI, IF=0.56)</p> <p>[15] Zheng, L., Zhu, D., Zhang, B., Xiao, G., Wang, C., Zhao, C. Correlation Analysis of the Mechanical Property of Wheat Stalk and the Fresh Biomass [J]. Sensor Letters, 2014, 12(3-4): 924-927. (SCI/EI, IF=0.56)</p> <p>[16] Li, J., Huang, W., Chen, L., Fan, S., Zhang, B., Guo, Z., Zhao, C. Variable Selection in Visible and Near-Infrared Spectral Analysis for Noninvasive Determination of Soluble Solids Content of ‘Ya’ Pear [J]. Food Analytical Methods, 2014, 7(9): 1891-902. (SCI, IF=2.167)</p> <p>[17] Ling, Z., Dazhou, Z., Dong, L., Baohua, Z., Cheng, W., Chunjiang, Z. Winter wheat biomass estimation based on canopy spectra [J]. International Journal of Agricultural and Biological Engineering, 2015, 8(6): 30-6. (SCI, IF=1.007)</p> <p>[18] Qian, M., Wang, Q., Chen, L., Huang, W., Fan, S., Zhang, B. Penetration depth of near-infrared light in small, thin-skin watermelon [C]. Computer and computing technologies in agriculture, Accept. (EI)</p> <p>[19] Wang, C., Huang, W., Zhang, B., Yang, J., Qian, M., Fan, S., Chen, L. Design and implementation of an automatic grading system of diced potatoes based on machine vision [C]. Computer and computing technologies in agriculture, Accept. (EI)</p> <p>[20] Liu, C., Wang, Q., Huang, W., Chen, L., Zhang, B., Fan, S. Comparison of Raman spectroscopies for noncontact determination of carotenoids in agricultural products [C]. Computer and computing technologies in agriculture, Accept. (EI)</p> <p>Books and Chapters:</p> <p>[1] 《Quantitative Methods for Food Safety and Quality in the Vegetable Industry》 Chapter: Quality of vegetable products: Assessment of physical-chemical and microbiological changes in vegetables products, (In press), Springer</p>
<p>Reward & honor</p>	<p>[1] National Scholarship, China national Ministry of Education (2014.10)</p> <p>[2] National Excellent Graduate Scholarship, Shanghai Jiao Tong University (2012.11)</p> <p>[3] Self-improvement Scholarship of Chinese university students, The Communist Youth League of China (2010.02)</p>