

CURRICULUM VITAE

Personal Information						
Name	Liu Yong-Zhong	Gender	Male			
Position Title		Professor				
Working Department		College of Horticulture & Forestry Sciences				
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Research Interest						
1) Mechanism for the regulation of fruit mastication, citrate and sugar accumulation in (citrus) fruits.						
2) Research to improve fruit quality from practice level.						
3) To develop labor-saving, safe and profitable planting model for citriculture.						
4) To develop cultural practices for citrus healthy production in Huanglongbing (citrus greening)-infected region.						
Education & Working Experience						
Education:						
2002 – 2006	Ph.D.	Huazhong Agricultural University, Fruit Science, Wuhan, China				
1996 – 1999	M.S.	Southwest Agricultural University, Fruit Science, Chongqing, China				
1996 – 1999	B.A.	Southwest Agricultural University, Fruit Science, Chongqing, China				
Working Experience:						
2016 – present	Professor, Huazhong Agricultural University					
2009 – 2010	Postdoctoral research in Agricultural Research Organization (Volcani Center), Israel					
2007 – 2015	Associate professor, Huazhong Agricultural University					
2002 – 2006	Lecturer, Huazhong Agricultural University					
Publications (* corresponding author)						

- Guo L-X, Hussain SB, Fernie AR, **Liu Y-Z***, Yan M, Chen H, Alam SM. Multiomic Analysis Elucidates the Reasons Underlying the Differential Metabolite Accumulation in Citrus Mature Leaves and Fruit Juice Sacs. *J. Agric. Food Chem.* 2020, DOI: 10.1021/acs.jafc.0c05153
- Hussain SB, Shi C-Y, Guo L-X, Du W, Bai Y-X, Kamran HM, Fernie AR, **Liu Y-Z***. Type I H⁺-Pyrophosphatase Regulates the Vacuolar Storage of Sucrose in Citrus Fruit, *Journal of Experimental Botany*, 2020, 71 (19): 5935-5947, <https://doi.org/10.1093/jxb/eraa298>
- Hussain SB, Guo L-X, Shi C-Y, Khan MA, Bai Y-X, Du W, **Liu Y-Z***. (2020) Assessment of Sugar and Sugar Accumulation-Related Gene Expression Profiles Reveal New Insight into the Formation of Low Sugar Accumulation Trait in a Sweet Orange (*Citrus sinensis*) Bud Mutant. *Mol Biol Rep*, 2020, 47: 2781 – 2791 <https://doi.org/10.1007/s11033-020-05387-6>
- Guo LX , **Liu YZ***, Luo LJ, Hussain SB, Bai YX, Alam, SM (2020). Comparative Metabolites and Citrate-Degrading Enzymes Activities in Citrus Fruits Reveal the Role of Balance between ACL and Cyt-ACO in Metabolite Conversions. *Plants*, 3(9):350
- Du W, Pan Z-Y, Hussain S B, Han Z-X, Peng S-A, & **Liu Y-Z*** (2020). Foliar Supplied Boron Can Be Transported to Roots as a Boron-Sucrose Complex via Phloem in Citrus Trees. *Frontiers in Plant Science*, 11:250. <https://doi.org/10.3389/fpls.2020.00250>.
- Liu X, Guo L-X, Luo L-J, **Liu Y-Z***, Peng S-A* (2019) Identification of the magnesium transport (MGT) family in *Poncirus trifoliata* and functional characterization of PtrMGT5 in magnesium deficiency stress. *Plant Molecular Biology*, 101(6), 551-560 doi:10.1007/s11103-019-00924-9
- Shi C-Y, Hussain SB, Yang H, Bai Y-X, Khan MA, **Liu Y-Z*** (2019) CsPH8, a P-type proton pump gene, plays a key role in the diversity of citric acid accumulation in citrus fruits. *Plant Sci* 289:110288. doi:<https://doi.org/10.1016/j.plantsci.2019.110288>
- Long- Fei Jin, Da- Yong Guo, Dong- yuan Ning, Syed Bilal Hussain, **Yong- Zhong Liu***. Covering the trees of Kinokuni tangerine with plastic film during fruit ripening improves sweetness and alters the metabolism of cell wall components. *Acta Physiologiae Plantarum*, 2018, 40: 182. doi:<https://doi.org/10.1007/s11738-018-2761-1>
- Shi C-Y, Hussain SB, Guo L-X, Yang H, Ning D-Y, **Liu Y-Z*** (2018) Genome-wide identification and transcript analysis of vacuolar-ATPase genes in citrus reveal their possible involvement in citrate accumulation. *Phytochemistry* 155:147-154.
- Syed Bilal Hussain, Cai-Yun Shi, Lin-Xia Guo, Hafiz Muhammad Kamran, Avi Sadka & **Yong-Zhong Liu***. Recent Advances in the Regulation of Citric Acid Metabolism in Citrus Fruit. *Critical Reviews in Plant Sciences*, 2017, 36 (4): 241-256.
- Xiao Liu, Jia-Wei Zhang, Ling-Xia Guo, **Yong-Zhong Liu***, Long-Fei Jin, Syed Bilal Hussain, Wei Du, Zhao Deng and Shu-Ang Peng*. Transcriptome Changes Associated with Boron Deficiency in Leaves of Two Citrus Scion-Rootstock Combinations. *Front. Plant Sci.* 2017, 8:317. doi: 10.3389/fpls.2017.00317
- Long-Fei Jin, **Yong-Zhong Liu***, Wei Du, Li-Na Fu, Syed Bilal Hussain, Shu-Ang Peng*. Physiological and transcriptional analysis reveals pathways involved in iron deficiency chlorosis in fragrant citrus. *Tree Genetics & Genomes* (2017) 13: 51. doi:10.1007/s11295-017-1136-x
- Guo, LX, Shi CY, Liu X, Ning DY, Jin LF, Yang H, **Liu YZ***. Citrate Accumulation-Related Gene Expression

and/or Enzyme Activity Analysis Combined With Metabolomics Provide a Novel Insight for an Orange Mutant. *Sci. Rep.* 2016, 6, 29343; doi: 10.1038/srep29343.

Xiao Liu, Long-Fei Jin, Ling-xia Guo, **Yong-Zhong Liu***, Tao Liu, Yu-Hua Fan, Shu-Ang Peng. Identification and transcript profiles of citrus growth-regulating factor genes involved in the regulation of leaf and fruit development. *Molecular Biology Reports*. (2016) 43: 1059-1067. doi: 10.1007/s11033-016-4048-1

Long-Fei Jin, **Yong-Zhong Liu***, Xin-Xing Yin, Shu-Ang Peng*. Transcript analysis of citrus miRNA397 and its target LAC7 reveals a possible role in response to boron toxicity. *Acta Physiologiae Plantarum*, 2016, 38:18. Doi. 10.1007/s11738-015-2035-0.

Xiao-Mei Hu, Cai-Yun Shi, Xiao Liu, Long-Fei Jin, **Yong-Zhong Liu***, Shu-Ang Peng. Genome-wide identification of citrus ATP-citrate lyase genes and their transcript analysis in fruits reveals their possible role in citrate utilization. *Molecular Genetics and Genomics*, 2015, 290:29-38.

Shi CY, Song RQ, Hu XM, Liu X, Jin LF and **Liu YZ***. Citrus PH5-like H⁺-ATPase genes: identification and transcript analysis to investigate their possible relationship with citrate accumulation in fruits. *Front. Plant Sci.* 2015, 6: 135.

Mohammad Zahidul Islam, Long-Fei Jin, Cai-Yun Shi, **Yong-Zhong Liu***, Shu-Ang Peng. Citrus sucrose transporter genes: genome-wide identification and transcript analysis in ripening and ABA-injected fruits. *Tree Genetics & Genomes*, 2015, 11(5):97.

Ni Jiang, Long-Fei Jin, Jaime A. Teixeira da Silva, MD Zahidul Islam, Hai-Wen Gao, **Yong-Zhong Liu***, and Shu-Ang Peng. Activities of enzymes directly related with sucrose and citric acid metabolism in citrus fruit in response to soil plastic film mulch. *Scientia Horticulturae* 2014, 168: 73-80.

Liu X, Hu X-M, Jin L-F, Shi C-Y, **Liu Y-Z***, Peng S-A (2014) Identification and transcript analysis of two glutamate decarboxylase genes, CsGAD1 and CsGAD2, reveal the strong relationship between CsGAD1 and citrate utilization in citrus fruit. *Mol Biol Rep*, 41:6253-6262

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X-Y Yang, F-F Wang, Jaime A. Teixeira da Silva, J Zhong, **Y-Z Liu*** and S-A Peng. Branch Girdling at Fruit Green Mature Stage Affects Fruit Ascorbic Acid Contents and Expression of Genes Involved in L-Galactose Pathway (27-Sep-2012). *New Zealand Journal of Crop & Horticultural Science*, 2013, 41(1):23-31.

Cheng-Quan Yang, **Yong-Zhong Liu**, Ji-Cui An, Shuang Li, Long-Fei Jin, Gao-Feng Zhou, Qing-Jiang Wei, Hui-Qing Yan, Nan-Nan Wang, Li-Na Fu, Xiao Liu, Xiao-Mei Hu, Ting-Shuai Yan, Shu-Ang Peng. Digital Gene Expression Analysis of Corky Split Vein Caused by Boron Deficiency in 'Newhall' Navel Orange (*Citrus sinensis* Osbeck) for Selecting Differentially Expressed Genes Related to Vascular Hypertrophy. *Plos One* 2013, 8(6), e65737

Ying Lei, **Yong-Zhong Liu***, Qing-Qing Gu, Xiao-Yan Yang, Xiu-Xin Deng, Jin-Yin Chen. Comparison of cell wall metabolism in the pulp of three cultivars of 'Nanfeng' tangerine differing in mastication trait. *Journal of the Science of Food and Agriculture* 2012, 92: 496–502

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calcium or boron treatments. Plant Molecular Biology Reporter,2011,29:51–59

Xiao-Yan Yang, Jin-Xia Xie, Xiao-Peng Lu, **Yong-Zhong Liu***, Shu-Ang Peng. Isolation of a citrus ethylene-responsive element binding factor gene and its expression in response to abiotic stress, girdling and shading. Scientia Horticulturae, 2011, 127: 275–281

Sorkina A, Bardosh G, **Liu YZ**, Fridman I, Schlizerman L, Zur N, Or E, Goldschmidt EE, Blumwald E and Sadka A. Isolation of a citrus promoter specific for reproductive organs and its functional analysis in isolated juice sacs and tomato. Plant Cell Reports. 2011, 30:1627–1640

Xiao-Yan Yang, Jin-Xia Xie, Fang-Fang Wang, Jing Zhong, **Yong-Zhong Liu***, Guo-Huai Li, Shu-Ang Peng. Comparison of ascorbate metabolism in fruits of two citrus species with obvious difference in ascorbate content in pulp. Journal of Plant Physiology, 2011, 168: 2196–2205

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