Curriculum Vitae

Personal information

Yang Xin, Ph.D. Research Fellow. Department of Food Science and Technology, National University of Singapore, 3 Science Drive 3, Singapore 117543, Tel: +65 8539 7307. E-mail: xinyang@u.nus.edu, yxabraham@gmail.com.

Education Background

2016-2020 Ph.D., Food Science and Technology, National University of Singapore, Singapore
2011-2015 B.S., Food Science and Engineering, Northwest A&F University (211 & 985), Shaanxi, China

Publications & Patents

First Author/Corresponding Author

（7）**Yang, X.**, Lim, S., Lin J., Wu J., Tang H., Zhao F., Liu, F., Sun, C., Shi X., Kuang, Y., Toy, J., Du, K., Zhang, Y., Wang, X., Sun, M., Song, Z., Wang, T., Wu, J., K. N. Houk,* Huang, D.,* Oxygen Mediated Oxidative Couplings of Flavones in Alkaline Water. ***Nature Communication***. (In Press)

（6）**Yang, X.**, Wang, T., Žuvela, P., Sun, M., Xu, C., Zheng, H., Wang, X., Jing, L., Du, K., Wang, S. and Wong, M.W., (2022). Three-Dimensional Quantitative Structure and Activity Relationship of Flavones on Their Hypochlorite Scavenging Capacity. ***Journal of Agricultural and Food Chemistry***. 70(28), 8799-8807.

（5）**Yang, X.**, Leong, J.L.K., Sun, M., Jing, L., Zhang, Y., Wang, T., Wang, S. and Huang, D.,（2022). Quantitative Determination of Ethylene Using a Smartphone-Based Optical Fiber Sensor (SOFS) Coupled with Pyrene-Tagged Grubbs Catalyst. ***Biosensors***, *12*(5), p.316.

（4）**Yang, X.**, Wang, X., Lin, J., Lim, S., Cao, Y., Chen, S., Xu, P., Xu, C., Zheng, H., Fu, K.C. and Kuo, C.L., (2022). Structure and Anti-Inflammatory Activity Relationship of Ergostanes and Lanostanes in Antrodia cinnamomea. ***Foods***, *11*(13), p.1831.

（3）**Yang, X.**, Sun, M., Wang, T., Wong, M. W., & Huang, D. (2019). A smartphone-based portable analytical system for on-site quantification of hypochlorite and its scavenging capacity of antioxidants. ***Sensors and Actuators B: Chemical***, *283*, 524-531.

（2）**Yang, X.**, Wang, T., Guo, J., Sun, M., Wong, M. W., & Huang, D. (2019). Dietary flavonoids scavenge hypochlorous acid via chlorination on A-and C-rings as primary reaction sites: Structure and reactivity relationship. ***Journal of agricultural and food chemistry***, *67*(15), 4346-4354.

（1）**Yang, X.**, Wang, Y., Liu, W., Zhang, Y., Zheng, F., Wang, S., ... & Wang, J. (2016). A portable system for on-site quantification of formaldehyde in air based on G-quadruplex halves coupled with a smartphone reader. ***Biosensors and Bioelectronics***, *75*, 48-54.

Co-Author

（9）Wang, X., Cao, Y., Chen, S., Lin, J., **Yang, X**. and Huang, D., (2022). Structure–Activity Relationship (SAR) of Flavones on Their Anti-Inflammatory Activity in Murine Macrophages in Culture through the NF-κB Pathway and c-Src Kinase Receptor. ***Journal of Agricultural and Food Chemistry***.

（8）Wang, X., Cao, Y., Jing, L., Chen, S., Leng, B., **Yang, X.**, ... & Huang, D. (2021). Three-Dimensional RAW264. 7 Cell Model on Electrohydrodynamic Printed Poly (ε-Caprolactone) Scaffolds for In Vitro Study of Anti-Inflammatory Compounds. ***ACS Applied Bio Materials***, *4*(11), 7967-7978.

（7）Sun, M., Wang, T., **Yang, X.,** Yu, H., Wang, S., & Huang, D. (2021). Facile mitochondria localized fluorescent probe for viscosity detection in living cells. ***Talanta***, *225*, 121996.

（6）Zhang, Y., **Yang, X.,** Tang, H., Liang, D., Wu, J., & Huang, D. (2020). Pyrenediones as versatile photocatalysts for oxygenation reactions with in situ generation of hydrogen peroxide under visible light. ***Green Chemistry***. 22, 22-27

（5）Žuvela, P., David, J., **Yang, X.,** Huang, D., & Wong, M. W. (2019). Non-Linear Quantitative Structure–

Activity Relationships Modelling, Mechanistic Study and In-Silico Design of Flavonoids as Potent Antioxidants. ***International journal of molecular sciences***, *20*(9), 2328.

（4）Lin, Y., **Yang, X.**, Lu, Y., Liang, D., & Huang, D. (2019). Isothiocyanates as H2S donors triggered by cysteine: Reaction mechanism and structure and activity relationship. ***Organic letters***, *21*(15), 5977-5980.

（3）Sun, M., **Yang, X.**, Zhang, Y., Wang, S., Wong, M. W., Ni, R., & Huang, D. (2018). Rapid and visual detection and quantitation of ethylene released from ripening fruits: the new use of Grubbs catalyst. ***Journal of agricultural and food chemistry***, *67*(1), 507-513.

（2）Sun, M., Krishnakumar, S., Zhang, Y., Liang, D., **Yang, X.**, Wong, M. W., ... & Huang, D. (2018). Singlet oxygen probes made simple: Anthracenylmethyl substituted fluorophores as reaction-based probes for detection and imaging of cellular $^1O_2$. ***Sensors and Actuators B: Chemical***, *271*, 346-352.

（1）Liang, D., Zhang, Y., Wu, Z., Chen, Y. J., **Yang, X.**, Sun, M., & Huang, D. (2018). A near infrared singlet oxygen probe and its applications in in vivo imaging and measurement of singlet oxygen quenching activity of flavonoids. ***Sensors and Actuators B: Chemical***, *266*, 645-654.

Patents

Yang Xin, Huang Dejian, Du Ke, Toy, Yi Hui Joanne. Methods to Synthesize Flavonoid Dimers and Oligomers and the Use Thereof. International Filing No: PCT/SG2021/050779, Dec 2021.

Research Interests

(1) Synthesis of bioactive compounds with high values using photo-catalysts, enzymes and radical reactions.

(2) Nature products isolation, characterization and their bioactivities, including antioxidant, anti-aging, anti-virus and enzymes inhibition activities.

(3) Synthesis of luminescent molecular and nanoprobes for sensing of reactive oxygen species of biological and environmental concerns.

(4) Chemical principles behind the bioactive compounds in food systems.

Journal Editorial Board Membership

2022.04 - 2023.09, MDPI multi-journal joint topic Editor.