10th International Conference on
Food Science & Technology
February 07, 2022 | Webinar

The polysaccharides of coffee cell walls: composition, structure and their influence on the flavor

Qianfan Li and **Wei Zeng**
Zhejiang A&F University, China

As the most popular the second most consumed beverage around the worldwide, coffee brings pleasure as well as provides numerous health benefits to the peoples. The cell wall storage polysaccharide accounts for about 50% in the seed dry matter of coffee beans, most composed of galactomannan and arabinogalactan, can promote health as soluble dietary fiber. Their composition also changed dramatically during the roasting process, largely influencing the organoleptic properties of the coffee beverage. Therefor the cell wall storage polysaccharide have been attracting significant attention in the research community. The importance of cell walls to the coffee industry is not only restricted to beverage production, but also several coffee by-products which represented by high concentrations of cell wall components. These by-products include cherry husks, cherry pulps, parchment skin, silver skin, and spent coffee grounds, which are currently used or have the potential to be utilized either as food ingredients or additives, or for the downstream products such as cosmetics, pharmaceuticals, and bioethanol. Here, we discuss several aspects of coffee cell walls, including chemical composition, biosynthesis, and their influence on coffee quality, and compared the polysaccharide composition in different varieties and roasting steps. Potential cell wall–related biotechnological strategies are proposed for coffee improvements.

Speaker Biography

Qianfan Li is a Master Student of Zhejiang A&F University. He got his bachelor's degree in Shenyang Pharmaceutical University and working on Prof, Wei Zeng's lab at the Sate Key Laboratory of Silviculture, studying Plant cell wall polysaccharides, especially Arabinogalactan Protein (AGP) biosynthesis.

e: qianfanli@stu.zafu.edu.cn