



SCO-Young Scientist Profile

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**Designation
& affiliation: Shanghai Jiao Tong University**

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**Passport photo in .JPG
(please append)**



Details of research work carried out in S&T (limit to 200 words)

Dr. Boyan Gao devotes his research on food chemistry, food analysis and food safety. His main research works include the application of food chemistry and analytical chemistry related approaches in analyzing the formation mechanisms, toxic effects and mechanisms, absorption and metabolisms of toxicants formed during food processing. In recent years, Dr. Gao focused on a group of contaminants, monochloropropane-1,2-diol (MCPD) fatty acid esters, investigated their formation pathways during oil refining progress, and evaluated their toxic effects and mechanisms in animal models. And he also developed a series of analytical methods and models to differentiate food adulteration by using food analytical chemistry coupled with chemometrics. In the past decade, he developed methods to differentiate food categories including botanical spices, milk and milk products, vegetable oils, etc. Till now Dr. Gao has published more 50 SCI manuscripts in food science journals.

Associated SCO-YSC Theme: Agriculture and food processing

Statement of Innovation (Brief information on new innovative ideas including startup / entrepreneurs- limit to 150 words)

Dr. Boyan Gao is now working on the formation mechanisms and elimination methods of food processing-induced toxicants, including aflatoxins, MCPD esters, etc. He is also developing non-targeted analyzing methods to accurately and quickly differentiating authentic foods from adulterated ones. Certain techniques could be utilized in food processing firms to protect food safety.

Shanghai Cooperation Organization- 1st Young Scientists Conclave (SCO-YSC 2020)
A virtual event organised in India at CSIR-IICT, Hyderabad
Theme: Shaping SCO-STI Partnership: Young Scientists Perspectives

Major awards/ Achievements (*Upto 3 awards*)

Possible collaboration with SCO countries (*limit to 100 words*)

Dr. Boyan Gao is glad to work with young scientists from other SCO countries in food safety and food analysis areas. His affiliation, Shanghai Jiao Tong University is one of top five universities in China, and is will to accept talent young scientists globally.

Key words (*relevant to research work conducted as well as proposed innovation, 5-6 words*)

food authentication, non-targeted detection, food analysis, chemometrics, food safety