## **Can Nanoplastics be Detected in Soft Drinks?**

Teodora Bratu<sup>1</sup>, Beizhan Yan<sup>2</sup>, Wei Min<sup>1</sup>

<sup>1</sup>Columbia College, Columbia University, <sup>2</sup>Lamont-Doherty Earth Observatory, Columbia University

Studying the consumption of nanoplastics in common food and drinks is crucial in determining the effect of nanoplastics on the human body. Nanoplastics are defined as measuring less than 0.1 µm in diameter, and nanoplastic pollution will only increase at great rates for the years to come. In order to decipher the quantity, size, and toxicity of nanoplastics in food and drinks, SEM and stimulated raman technology were used on samples of Coca Cola and Sprite. The shapes and chemical compositions of the micro and nanoparticles found in the drinks suggest that different kinds of plastics are found in both sources. SRS data is still pending, but we hypothesize that the data will further suggest the existence of nanoplastics in commonly consumed products. Due to their small size, it is suggested that nanoplastics cause more damage to human health than microplastics, since their size allows them to cross different biological membranes. Therefore, it nanoplastics may accumulate in organs and impair major functions. Sources of nanoplastics need to be identified in order to prevent further accumulation in the body.