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Taiwo Ayorinde is a graduate research assistant and PhD student at the Department of Environmental Science at **Baylor University** (Waco, Texas). He is an **environmental scientist** and **chemical engineer** with an extensive background in toxicology, environmental chemistry, material science, risk assessment, and environmental management.

His current research encompasses elucidating the fate, transformation, degradation, and effects of microplastics in complex matrices. He uses laboratory-generated microplastic particles to study how microplastics' physicochemical properties change upon exposure to abiotic factors and the interaction mechanism with emerging contaminants in surface waters. In addition, Taiwo explores scientific methods to remediate plastic pollution problems using water-based enzyme solutions, microbes, and Advanced Oxidation Processes (AOP). Additionally, he investigates the health impacts of polymer additives in consumer plastic products.

Over the past couple of years, Taiwo has collaborated with researchers at the American Chemistry Council and the US Environmental Protection Agency to develop standardized microplastic reference materials and characterize microplastic particles in water samples. His routine laboratory activities include identifying and characterizing polymeric materials using Fourier transform infrared spectroscopy (FTIR), Raman spectroscopy, nuclear magnetic resonance (NMR) spectroscopy, differential scanning calorimetry (DSC), and scanning electron microscopy (SEM). He is also adept at applying inductively coupled plasma (ICP) and liquid chromatography (LC) mass spectroscopy to analyze inorganic and organic compounds, respectively. Taiwo is trained in cell culture, aseptic techniques, and biosafety.

Taiwo has demonstrated outstanding research capabilities by publishing his works in reputable scientific journals such as the *Journal of Hazardous Materials Letters* and *Toxics*. He has presented at numerous conferences organized by the American Chemical Society (ACS), Society of Toxicology (SOT), and the Annual Texas Plastic Pollution Symposium. Taiwo is a member of the American Chemical Society (ACS) and the Texas Society of Microscopy (TSM).

Taiwo received his B.S. in Chemical Engineering and a Master of Environmental Management from the University of Lagos in Nigeria. His master's thesis focused on the health impact and waste management strategies of electronic waste in Nigeria.