

Preparation of nanoplastics and their bioaccumulation study on zebrafish as an animal model

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Since plastics production dramatically have increased last decades, plastics waste also becomes a growing issue in society and environments. Microplastics were formed from plastic waste by fragmentation and UV irradiation and they exposed to various environments such as soil, ocean, and air and living organisms. In this talk, I will present the recent studies of bioaccumulation of nano- and microplastics in living organisms. Although polystyrene (PS) is widely used due to its accessibility, polyethylene (PE) and polypropylene (PP) are also one of major source of microplastics and it is rarely reported the biological study of PE or PP nanoplastics. Recently, we developed the preparation method of PE and PP nanoplastics and characterization their physical and chemical properties and bioaccumulation study using zebrafish embryos as an animal model.