بسمه تعالی

**فرم چکیده سخنرانی ژورنال کلاب دانشجویان دکترا ورودی**

دانشکده بهداشت – گروه مهندسی بهداشت محیط

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| **نام و نام خانوادگی دانشجو : ناهید عزیزی**  **شماره دانشجویی: 9711150002**    **استاد راهنمای آموزشی: پروفسور سیمین ناصری عکس دانشجو:**  **تاریخ : 3/12/1399 ساعت: 13** |
| **عنوان مقاله :**  A study on characteristics of microplastic in wastewater of South Korea: Identification, quantification, and fate of microplastics during treatment process |
| **چکیده : 151 words**  Background: This study investigated the removal of microplastics from different treatment stages in three WWTPs and examined the performance of tertiary treatment that was done by coagulation and different technologies such as ozone (WWTP-A), membrane disc-filter (WWTP-B), and rapid sand filtration (WWTP-C).  Results: The results showed that the primary and secondary treatment processes effectively remove microplastics from wastewater with efficiencies ranging between 75% and 91.9%. The removal efficiency increased further to > 98% after tertiary treatment. Microbeads and fragments were the major types of microplastics found in all wastewater sampling points. Conclusion: Microbeads found in the wastewater samples were classified as primary microplastics, that mainly came from personal care products, whereas secondary microplastics consisted of fragments, fibers, and sheets that were generated mainly due to fragmentation of larger plastics. Microplastics were still found in a high concentration in the final effluent, especially from WWTP-B, which is discharged into the Geumho river. |