عنوان مقاله:

A Review on the Importance of Hormones Monitoring and Their Removal in Conventional Wastewater Treatment Systems

محل انتشار:

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خلاصه مقاله:

Introduction: Micro pollutants have become one of the most important environmental concerns around the world. These natural and synthetic compounds have been called Endocrine Disrupting Chemicals (EDCs) due to their interfere with the normal function of the endocrine system in humans and animals. They include natural and synthetic hormones and their metabolites, surfactant, insecticide, as well as some pharmaceuticals and health care products. Because of these compounds effects, importance of their monitoring in Iran is perceived like other countries. Materials and Methods: This paper was carried out on the basis of studies accomplished from 2000 to 2017 and also the ones published in databases such as Google Scholar, Elsevier, Scopus, Science direct, Magiran, and SID using hormone removal, micro pollutant removal, removal hormones from wastewater, sex hormones removal, steroidal hormones, hormone removal from wastewater, and removal efficiency of micro pollutants as the keywords. PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) statement was used for selecting articles. Results: Sexual reproduction of fish exposed to estrogenic compounds was changed. Phytoestrogens exist on a certain strain of clover which caused severe infertility in sheep grazing on them. Some studies have reported that a decrease in men s sperm and breast cancer in women are caused by exposure to estrogenic compounds. Conclusion: According to the current study, further studies are needed to determine the entry routes of steroid hormones into aquatic .environment, the detection techniques and measurements, as well as the best removal method in Iran

کلمات کلیدی:

EDCs, Gonadal Steroid Hormones,Hormon Removal,Wastewater Treatment