Organic substances destruction at sewage purification.

Bogdanovsky G., Lebedeva O., Kultin D., Savelieva T.
Laboratory of Ecological chemistry of chemical department, Moscow State University, 119899, Moscow, Russia

Destruction of aromatic substances, as components of sewages, is not only actual , but complex problem of technogenetic ecology. Amongst known methods sewages purification from aromatic structures electrochemical methods deserves attention. Our studies of model and natural sewages, contained phenols, dye staffs and number of other pollutants by chromatography, spectrophotometry, mass-spectrography and other methods have shown that electric action with certain type of electrodes-catalysts lead to significant destroying of the aromatic structures. Herewith it was discovered that in presence of the chloride-ions significant intensification process, caused by the electrochemical generation "active chlorine" was observed. Undoubtedly, that aromatic structures in presence of "active chlorine" at electrolysis are to form dioxines as by-products. However the fact of formation an dioxines in the strong oxidants ambience as an end product stays disputable. Our studies within the framework of the Russia Fund of Fundamental Studies not only answer this question, but offer a perspective variant of destroying an dioxines in the case of their significant accumulation in sewages cleaned.