

## **ELECTROCHEMICAL DEGRADATION OF DRUGS IN WASTE WATER BY BORON DOPED DIAMOND ELECTRODE**

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### **Abstract**

In this study, we present the application of polycrystalline Boron doped diamond (BDD) thin films in the field of water micropollutants degradation. Conventional waste water treatment plants cannot degrade the majority of new types of pollutants. Hence the powerful methods for the decontamination of drugs, psychoactive substances and antibiotics waste have received increasing attention over the past decade. The BDD anode is the best electrode with low adsorption properties, remarkable corrosion stability even in strongly acidic media and extremely high O<sub>2</sub>, OH radicals evolution. Effective degradation process of the legal and illegal drugs in water (Methamphetamine, Cocaine, Cotinine, Tramadol, Diclofenac, etc.) were presented by LC-MS/MS in waste water from the output of a sewage treatment in Bratislava.

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