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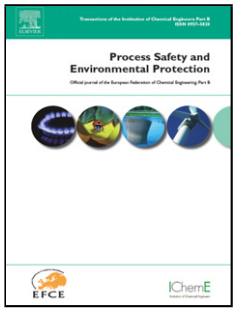

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PII: S0957-5820(18)30073-9
DOI: https://doi.org/10.1016/j.psep.2018.03.021
Reference: PSEP 1327

To appear in: *Process Safety and Environment Protection*

Received date: 30-1-2018
Revised date: 6-3-2018
Accepted date: 9-3-2018

Please cite this article as: Lebik-Elhadi, Hafida, Frontistis, Zacharias, Ait-Amar, Hamid, Amrani, Said, Mantzavinos, Dionissios, Electrochemical Oxidation of Pesticide Thiamethoxam on Boron Doped Diamond Anode: Role of Operating Parameters and Matrix Effect.Process Safety and Environment Protection https://doi.org/10.1016/j.psep.2018.03.021

Electrochemical Oxidation of Pesticide Thiamethoxam on Boron Doped Diamond Anode: Role of Operating Parameters and Matrix Effect

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Highlights

- Commercial formulation of pesticide thiamethoxam is electrooxidized on BDD anode
- BDD is more efficient than platinum or stainless steel anodes with Na_2SO_4 electrolyte
- The water composition (pH, presence of organic matter and anions) affects degradation
- Actual matrices, especially treated wastewater, are detrimental to the degradation
- In addition to TMX degradation, mineralization to CO_2 and water also occurs

Abstract

The electrochemical oxidation of the neonicotinoid pesticide thiamethoxam (TMX) on a boron-doped diamond (BDD) anode was investigated. The effect of several operating