Electro-mineralization of Gaseous CCl₄ by Electrogenerated Ni(I)(CN)₄³⁻ in an electroscrubbing

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Industries evolved chlorinated volatile organic compounds (CVOCs) must be degraded. Many of removal processes, metal ions mediated electrochemical reduction (MER) is a facile and novel method. The present investigation focuses on reduction of $Ni(II)(CN)_4^{2-}$ especially at the Cu electrode in KOH medium. The following figure shows the reduction effificiency variation with Ag, Ti, and Cu cathodes. According with the following figure, Cu cathode found to be generate more Ni(I) confirms importance of electrode. The generated Ni(I) perforemed with gas CCl₄ through CV and online FTIR analyses those results will be presented and dicussed.



Key words: Homogeneous mediator, Ni(II)(CN)42-, MER, degradation, CCl4