



## Electrochemically deposited polyethyleneimine films and their characterization

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Résumé en anglais	<p>Polyethyleneimine films have been deposited on platinum electrode surfaces by electrochemical oxidation of ethylenediamine H<sub>2</sub>N-CH<sub>2</sub>-CH<sub>2</sub>-NH<sub>2</sub> (EDA) in acetonitrile solutions. This electrochemical synthesis was realized by cyclic voltammetry and gravimetry techniques. Then, the characterization of the thin solid polyethyleneimine film was performed using X-ray photoelectron spectroscopy and infrared spectroscopy. It was also shown, using atomic force microscopy, that the solid polymeric coating has a granular and homogeneous structure. The influence of EDA concentration on the electropolymerization process was studied leading to the conclusion that the reaction is easier for high EDA concentration. Then, the influence of the nature and concentration of the supporting salt was investigated, showing that its nature is not very important, contrary to its concentration.</p>
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### Liens

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