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Titre de la thèse :

InkJet Printed Metallic Micropatterns for Electroanalytical
Applications

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The goal of this thesis is the development surface functionalization methodologies by inkjet printing deposition allowing the realization of nano/microstructured electrodes on flexible substrates. The proposed approach will initially consist in formulating and printing inks for the modulation of the surface energy and the microstructuration of flexible substrates. The wettability characteristics obtained from this patterning will be controlled to allow the subsequent printing of conductive inks at exceptional spatial resolutions to date ($\approx 1 \mu\text{m}$). As part of a collaboration between the PHENIX laboratory and IFREMER, these patterns will be used for the dielectrophoretic separation and accumulation of plankton in a saline medium.

Mots clés : Inkjet Printing, Surface Functionalization, dielectrophoresis.