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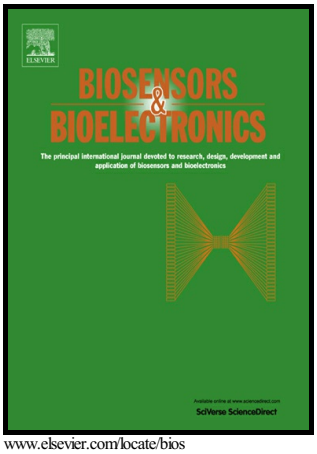

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Biofunctionalized silicon nitride platform for sensing applications

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ABSTRACT

Silicon nitride (SiN_x) based biosensors have the potential to converge on the technological achievements of semiconductor microfabrication and biotechnology. Development of biofunctionalized SiN_x surface and its integration with other devices will allow us to integrate the biosensing capability with probe control, data acquisition and data processing. Here we use the hydrogen plasma generated by inductively coupled plasma-reactive ion etching (ICP-RIE) technique to produce amino-functionality on the surface of SiN_x which can then be readily used for biomolecule immobilization. ICP-RIE