

Electronic platform for sensing and control of (electro-)chemical reaction

Biological and chemical sensor systems are of great importance in health care, industrial processing, environmental monitoring and remediation, energy production, and national defense. This invention is a sensor and sensing method for controlling surface-based chemical reactions on an electronic platform. The sensor is comprised of a semiconductor layer having a two-dimensional electron gas (2DEG) and an oxide layer in electronic contact with the semiconductor layer is provided. A method of detecting an analyte molecule using such sensor is also provided.

Patents

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Title: ELECTRONIC PLATFORM FOR SENSING AND CONTROL OF ELECTROCHEMICAL REACTIONS

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