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Area of Research: Biosensors for multi-analyte detection in human sweat.



Title: Fabrication and Characterization of Pencil-drawn Flexible Electrodes for Detection of Biomarkers in Human Sweat and other Assays

Summary: The complexity of multi-analyte detection is one of the main challenges in sweat sensors. As sweat contains plethora of electrolytes as well as metabolites responsible for various physiological reactions in the body, the sensing of metabolites and electrolytes under various constraints such as body temperature, variation in environmental conditions, person's age etc. are equally challenging and needs attention. Therefore, appropriate quantitative investigation of sweat biomarkers is a concerned objective of research work for the development of an indispensable, reliable and cost-efficient sensing platform thereby enhancing diagnosis efficiency and improve patient's health.

Experimental Set-up: A Custom-made Potentiostat for acquisition of cyclic voltammograms as well as chronoamperograms for characterization of fabricated biosensors.