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Review

Potassium Wearable Potentiometric Biosensors and Related Sweat Collection Methods: A Review

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Abstract- Wearable potentiometric ion sensors (WPISs) have emerged as exciting analytical platforms that combine chemical, material, and electronic advancements to provide physiological information during various human activities. The real possibility of wearing an analytical device with diverse configurations, such as sweatbands, patches, or garments, without disturbing the wearer's comfort has enabled potentiometric ion sensors to serve as both healthcare monitoring and improve the performance of athletes.

Keywords- Ion-selective electrodes (ISEs); Non-invasive monitoring; Potentiometric sensors; Wearable potentiometric ion sensors (WPISs); Potassium

1. INTRODUCTION

Sensors and biosensors give us crucial information about body hydration, electrolyte balance, and overall health status. Electrolytes are essential for various physiological functions, and monitoring their levels accurately is vital for diagnosing our body's conditions like dehydration, electrolyte imbalances, and metabolic disorders, they enable real-time monitoring of electrolyte levels, allowing for early detection of imbalances that can cause serious health