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Electrochemical impedance spectroscopy. Potentiostat device.

We view electrochemical impedance spectroscopy as a specialized case that characterizes an electrochemical system by measuring its alternating current or potential signals. The measurements are normally used to identify the physical phenomena that control electrochemical reactions in the system and to determine the corresponding physical properties. It does provide an indirect means to measure a variety of electrochemical quantities that are not easy to assess accurately. The proposed research aims to develop systems and the methods to characterize a material and media's physical properties by hardware. The design of the hardware is less expensive, and when it is possible, it is open source hardware.
Any substance subjected to a variable electrical signal responds like a passive electrical circuit. The electrochemical impedance spectroscopy aims to characterise the equivalent circuit of a given substance. The characterisation of the equivalent circuit is essential when the material should be used for battery or to determine any other application. In this work, the design of the system is the Potentiostats device. The primary circuit of the Potentiostats is operational amplifier that provides the feedback mechanism to allows the Potentiostats to maintain the constant potential in electrochemical system.

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Yes, I ACCEPT

Primary author: Mr HLONGWANE, Senzo (University of KwaZulu-Natal, School of Chemistry and Physics)

Co-authors: PETRUCCIONE, Francesco (School of Data Science and Computational Thinking and Department of Physics, Stellenbosch University, Stellenbosch 7604, South Africa); MARIOLA, Marco (University of KwaZulu--Natal)

Presenter: MARIOLA, Marco (University of KwaZulu-Natal)

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