VALUE ADDED ABSTRACT

Electrochemical Performance Of rGO-Mn₃(PO₄)₂ hybrid Materials for Supercapacitor Applications.

L.F. Mabena

Electrochemical energy storage (EES) devices such as supercapacitors active electrode materials and for hybridization with carbon (SCs) have emerged as promising solution for renewable energy storage nanomaterials [3]. This work presents, the electrochemical performance technologies [1]. SCs are energy storage devices characterised by their investigation of microwave-assisted synthesis of manganese phosphate fast charge-discharge cycles and long cyclability. Carbon-based supported on reduced graphene oxide (rGO/Mn₃(PO₄)₂) hybrid materials nanostructured materials due to their intrinsic proprieties have gained and its morphological characterization for supercapacitor applications. much application in SCs. Various synthetic methods have been established to improve the electrode materials performance for supercapacitor applications. Carbon nanomaterial are being intensively REFERENCES hybridized with Pseudocapacitive transition metal for high performing electrode devices development due to their several oxidation states that L.F. Mabena, N.G. Chauke 1) allows energy storage via Faradic and non-Faradic reactions [2]. C.G. Brink 2) Therefore, Manganese-based electrodes materials which are D.M.Mabena, 3) characterized by their high theorical specific capacitance (~1370 F/g), 4) K.Makgopa low cost and abundance in nature have been extensively explored as

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Received: November 26, 2020, Accepted: November 27, 2020, Published: November 29, 2018

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