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AN ELECTROCHEMICAL COMPOSITE AND A METHOD OF MAKING THEREOF



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- Chemicals and Materials
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TECHNOLOGY READINESS LEVEL (TRL)

TRL 3 (Proof of Concept)

PATENT/ GRANTED NUMBER

• MY-184054-A

TECHNOLOGY OVERVIEW

The invention relates to an electrochemical composite used generally in an electrochemical cell for detection of nitrate and nitrite. The electrochemical composite comprises a first layer of substrate, a second layer deposited above the first layer, in which the second layer acts as a conductive layer, and a third layer deposited above the second layer, in which the third layer acts as an active site for the detection of nitrate and nitrite. More specifically, the first layer of substrate is of a ternary compound, the second layer is of reduced graphene oxide and the third layer is of metal nanoparticles, in which the electrochemical composite (1) exhibits optimum electrocatalytic activity and stability for the detection of nitrate and nitrite. Also disclosed is a method of making the electrochemical composite.

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