

Author's Accepted Manuscript

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www.elsevier.com/locate/talanta

PII: S0039-9140(17)30888-3
DOI: <http://dx.doi.org/10.1016/j.talanta.2017.08.060>
Reference: TAL17856

To appear in: *Talanta*

Received date: 9 June 2017
Revised date: 12 August 2017
Accepted date: 18 August 2017

Cite this article as: Yudong Xue, Govindhan Maduraiveeran, Mingyong Wang, Shili Zheng, Yi Zhang and Wei Jin, Hierarchical oxygen-implanted MoS₂ nanoparticle decorated graphene for the non-enzymatic electrochemical sensing of hydrogen peroxide in alkaline media, *Talanta*, <http://dx.doi.org/10.1016/j.talanta.2017.08.060>

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Hierarchical oxygen-implanted MoS₂ nanoparticle decorated graphene for the non-enzymatic electrochemical sensing of hydrogen peroxide in alkaline media

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Abstract: Owing to the extensive applications of hydrogen peroxide (H₂O₂) in biological, environmental and chemical engineering, it is of great importance to investigate sensitive and selective sensing platform towards the detection of H₂O₂. Herein, oxygen-implanted MoS₂ nanoparticles decorated graphene nanocomposite is synthesized via a facile one-pot solvothermal method for the sensitive detection of H₂O₂ in alkaline media. The structure and morphology of the MoS₂/graphene nanocomposites were systematically characterized, showing that Mo-O bonds are

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