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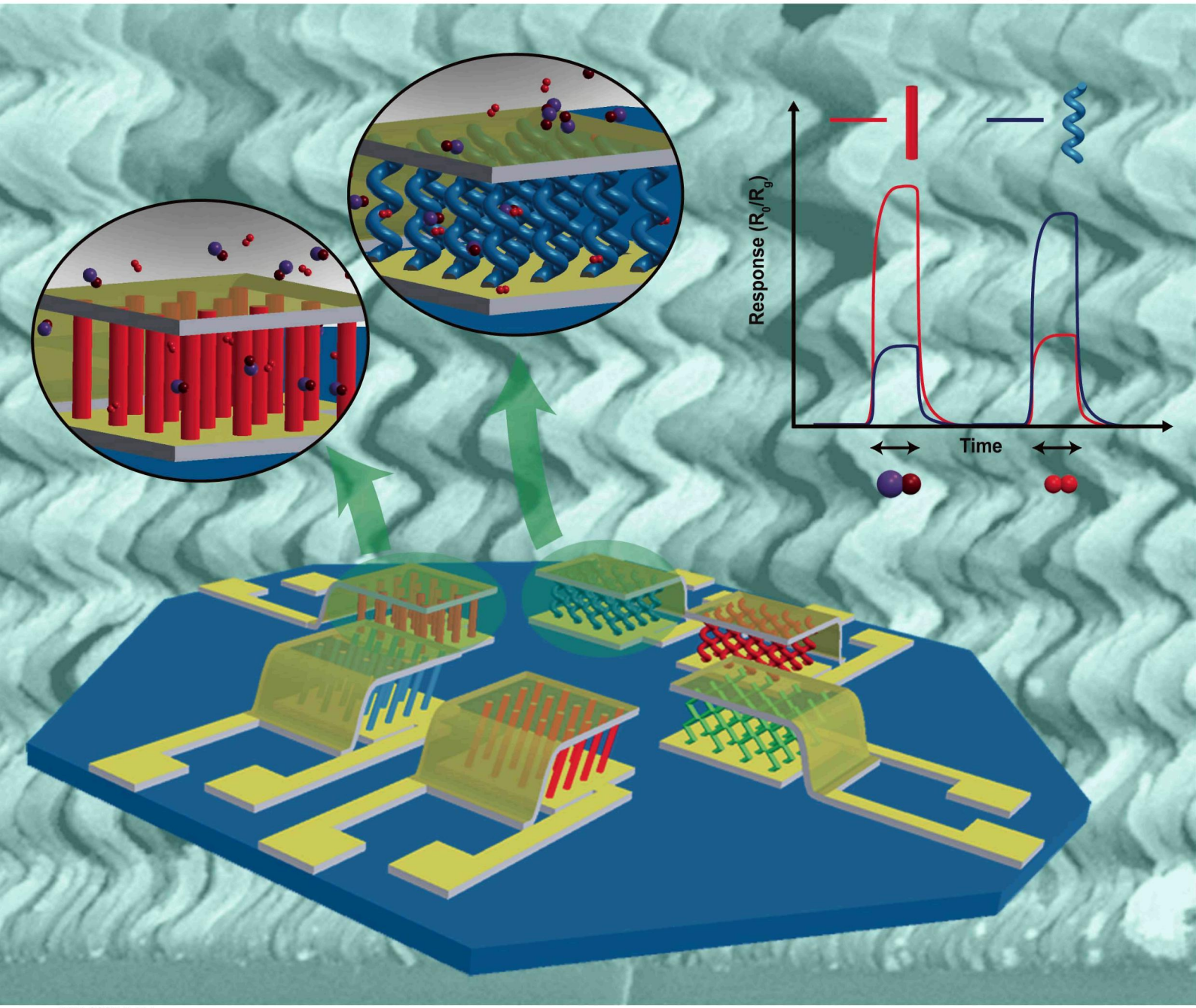

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HOT ARTICLE

Jong Kyu Kim *et al.*

A near single crystalline TiO_2 nanohelix array: enhanced gas sensing performance and its application as a monolithically integrated electronic nose

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Cover
See Qingtao Liu and Ben J. Boyd, pp. 391–409.
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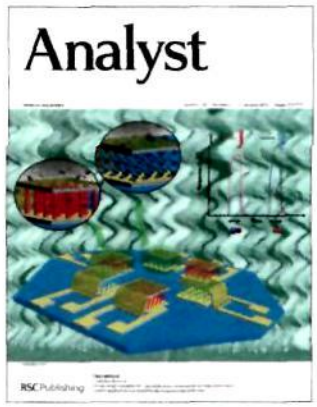

Inside cover
See Jong Kyu Kim *et al.*, pp. 443–450.
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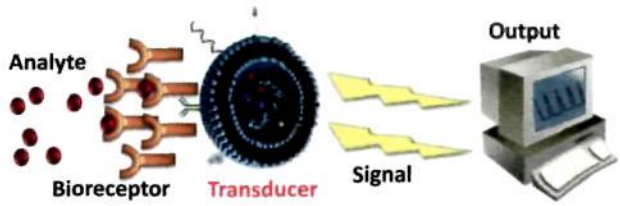
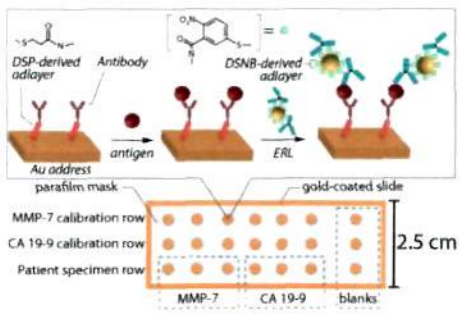
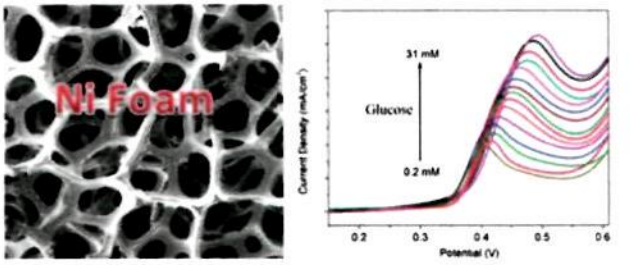
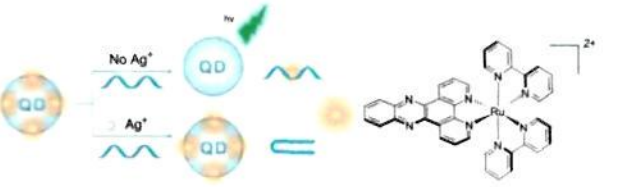
CRITICAL REVIEW

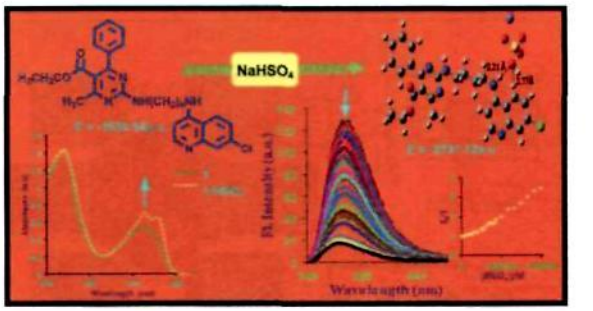


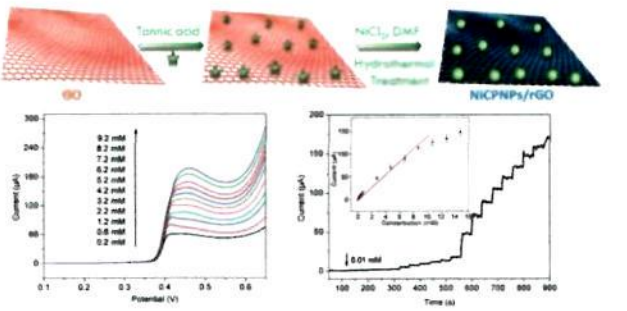
COMMUNICATIONS











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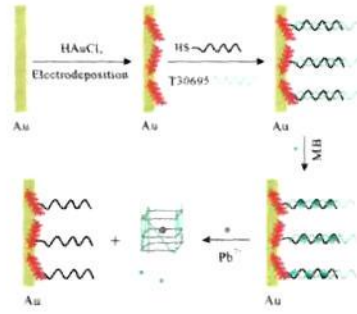
A selective amperometric sensing platform for lead based on target-induced strand release

Feng Li, Limin Yang, Mingqin Chen, Peng Li and Bo Tang*

A selective and sensitive amperometric sensing platform for Pb^{2+} was developed based on Pb^{2+}-induced disruption of a capture DNA–partly complementary strand duplex *via* the formation of a Pb^{2+}-stabilized G-quadruplex structure with methylene blue as the electrochemical indicator.



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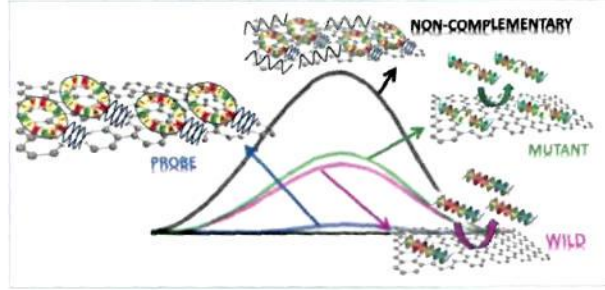
An insight into the hybridization mechanism of hairpin DNA physically immobilized on chemically modified graphenes

Adeline Huiling Loo, Alessandra Bonanni and Martin Pumera*

The hairpin DNA biorecognition mechanism resulting in an impedimetric signal change on graphene platforms is investigated by using differential pulse voltammetry (DPV).



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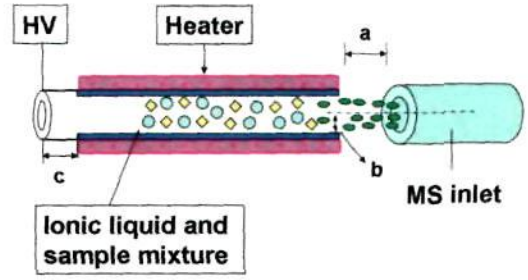
Thermal dissociation atmospheric chemical ionization ion trap mass spectrometry with a miniature source for selective trace detection of dimethoate in fruit juices

Yongzhong Ouyang, Xinglei Zhang, Jing Han, Xiali Guo, Zhiqiang Zhu, Huanwen Chen and Liping Luo*

Instead of conventional organic solvents and high voltage, an ionic liquid, a "green solvent", was employed to generate reagent ions.



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A simple SPR-based method for the quantification of the effect of potential virus inhibitors

Praskoviya M. Boltovets,* Olena M. Polischuk, Oleksiy G. Kovalenko and Boris A. Snopok

In this work we prove the appropriateness of the DViFA application for composite multicomponent mixtures whose elements influence each other, in particular, those whose components differ substantially from each other in molecular mass and size.