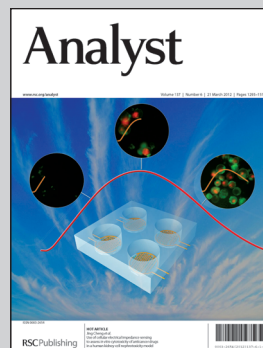


Showcasing interdisciplinary work from the Integrated Biosystems Laboratory led by Dr. Madoo Varma at Intel Labs, Santa Clara, CA, USA and the group of Prof. Rashid Bashir in the Dept. of Electrical and Computer Engineering, Dept. of Bioengineering, and Micro and Nanotechnology Lab at the University of Illinois at Urbana-Champaign, USA.

Title: Label-free electrical detection of pyrophosphate generated from DNA polymerase reactions on field-effect devices

Label-free electrical detection of the small molecule target pyrophosphate generated by base-specific polymerase reactions on surface-immobilized DNA using chelator-modified field-effect transistor devices is demonstrated. This approach can be applied to scalable and portable electronic sensor arrays and platforms for broad biomedical applications such as DNA sequencing and microbe detection.

As featured in:



See Jing Cheng *et al.*,
Analyst, 2012, **137**, 1343–1350.

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