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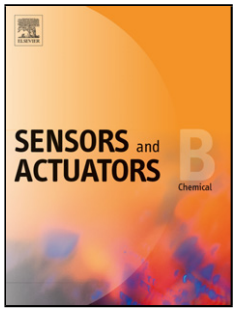

Title: Calixarene/Carbon nanotubes based screen printed sensors for potentiometric determination of Gentamicin sulphate in pharmaceutical preparations and spiked surface water samples

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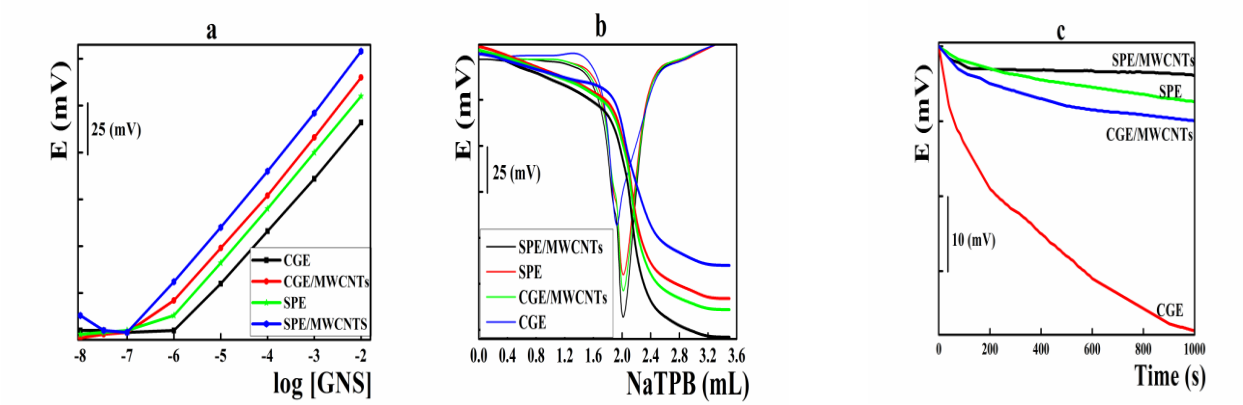

Graphical abstract

- Novel gentamicin screen printed sensor based calixarene/multi-walled carbon nanotubes/PVC composite was introduced.
- Improved sensitivity and selectivity was achieved with molecular host–guest recognition element in combination with CNTs as ion-to-electron-transducer.
- Sensors showed Nernstian compliance in the concentration range from 10^{-7} to 10^{-2} mol L^{-1} with fast response time (less than 3 s) and long shelf-lifetime (21 weeks).
- The relative simple fabrication protocol of the disposable sensor, high sensitivity, reproducibility and stability represents promising approaches for drug quality control laboratories and monitoring pharmaceutical compounds in waste water samples.

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