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Title: Bio-inspired ultrasensitive colorimetric detection of methyl isothiocyanate on nylon-6 nanofibrous membrane: A comparison of biological thiol reactivities

Authors: Peixin Tang, Maria Trinidad Gomez, Ho Ting Leung, Gang Sun



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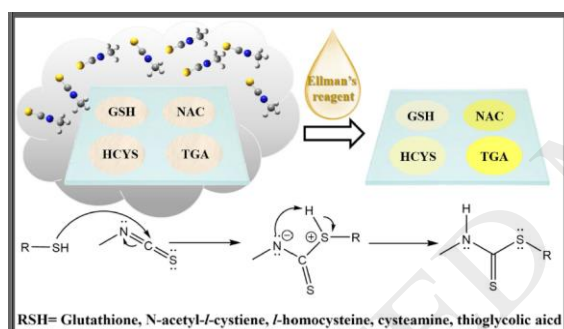
Peixin Tang ^a, Maria Trinidad Gomez ^b, Ho Ting Leung ^b, Gang Sun ^{a*}

^a Division of Textiles and Clothing, University of California, Davis 95616, CA USA

^b Department of Chemistry, University of California, Davis 95616, CA USA

* Corresponding author: Tel.: +1 530 752 0840; gysun@ucdavis.edu (G. Sun).

Graphical abstract



Highlights

- A highly sensitive paper colorimetric sensor for methyl isothiocyanate (MITC) was developed.
- The sensor mimics reactions of biological thiols with methyl isothiocyanate (MITC).
- The reaction was analyzed by computational modeling and experimental results.

Abstract

Living organisms, including human beings, rapidly show skin color changes after chemical poisonings, a result of toxicological or detoxification reactions caused by biological thiol compounds. On the other side, quick and portable detection of highly-volatile toxicants is an urgent need for improving human safety and personal protection, especially real-time

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