

## Cryogel Based Sensor for Sodium Hydrosulfite Determination

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<b>Abstract</b>	A sensor for determination of sodium hydrosulfite using a cryogel entrapped 5,5-dithiobis-2-nitrobenzoic acid (DTNB) was developed. This sensor is based on the chemical reaction between sodium hydrosulfite and DTNB reagent yielding a yellow product of 5-mercapto-2-nitrobenzoate which can be easily observed by naked-eyes and digital image analysis. The intensity of the color increased with the sodium hydrosulfite concentration which can be quantified by ImageJ software. The developed test kit provided the linear ranges from 10 to 30 ppm ( $R^2 = 0.9839$ ) with a detection limit of 3.51 ppm and limit of quantification of 11.69 ppm.
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