

## Electronic Supplementary Information

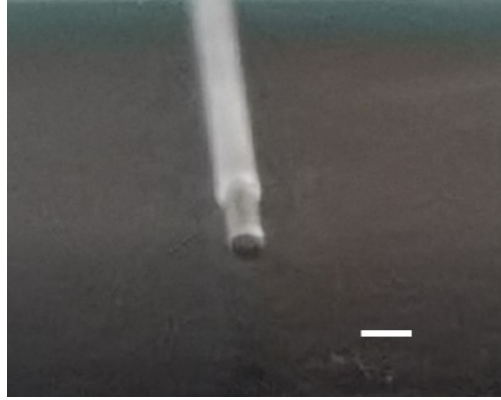
### Portable and miniaturized lab-on-fiber sensor based on responsive Fabry-Perot resonance cavity for the detection of thiocyanate

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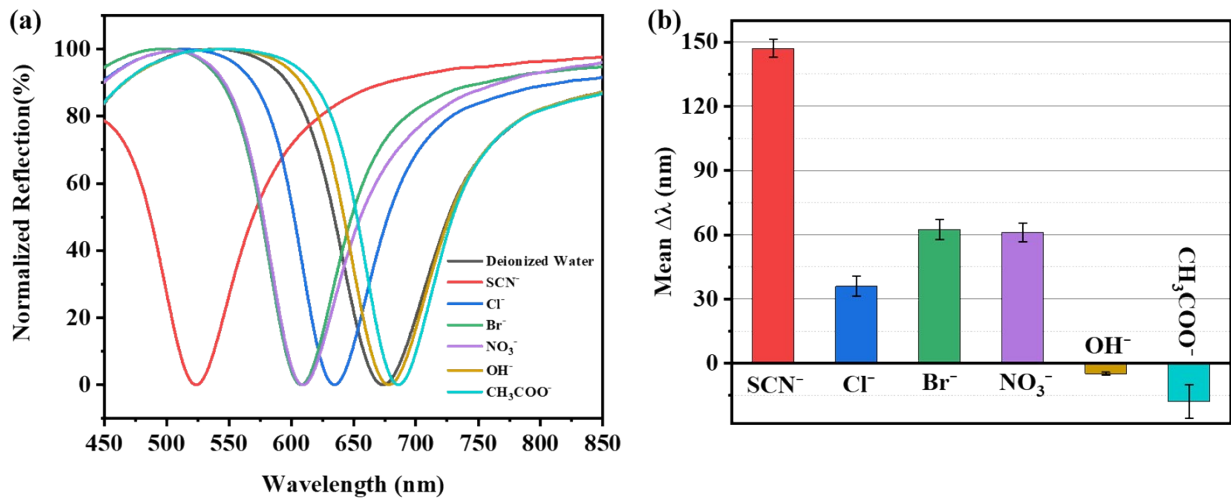
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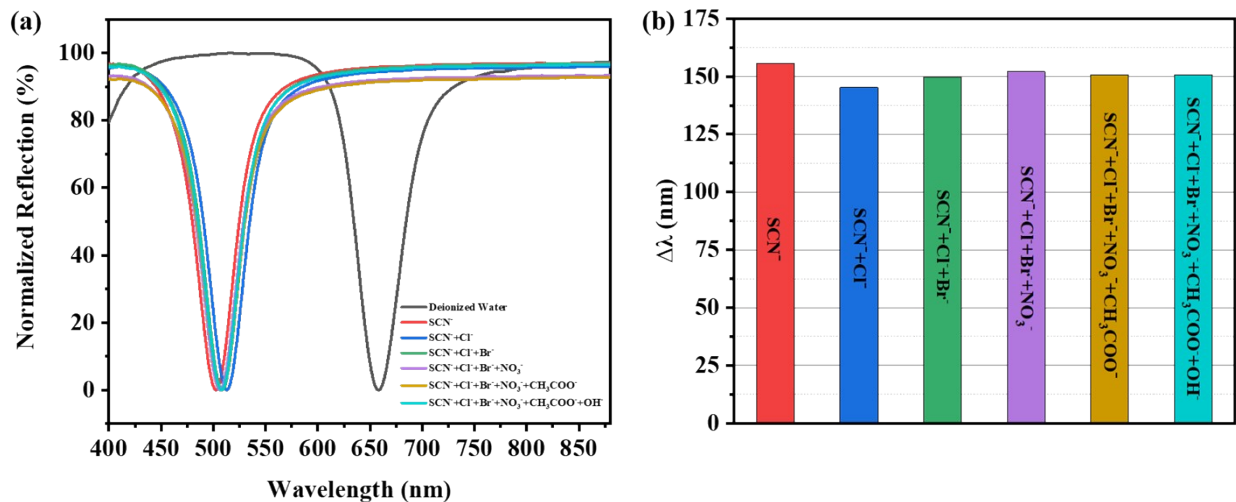
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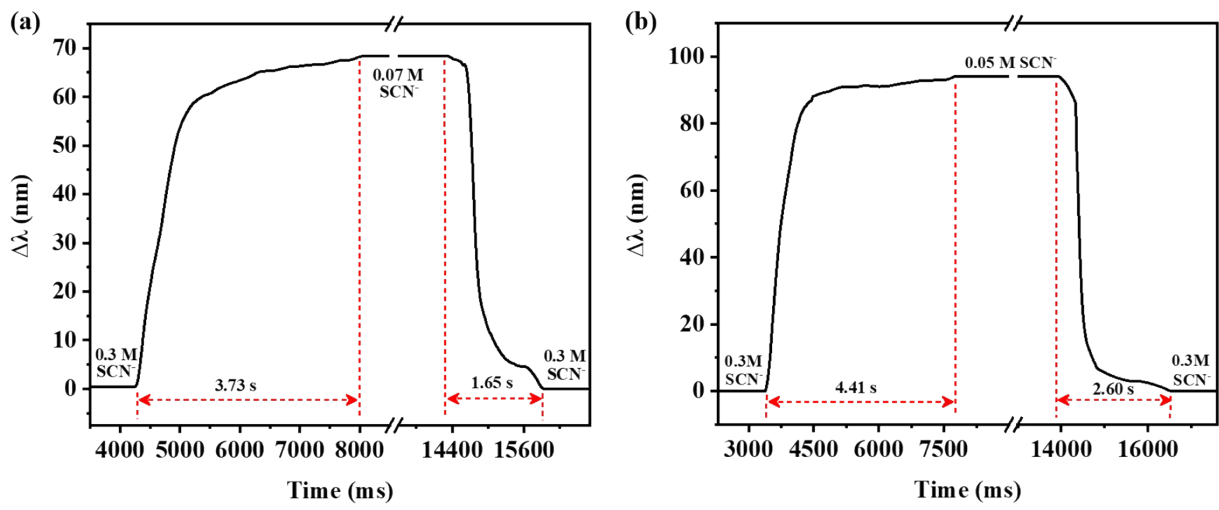
**Fig. S1.** The photograph of the fabricated MIM LOF sensor (the bar is 1 mm).



**Fig. S2.** (a) Normalized reflection spectra of the fabricated LOF sensor in different anions. (b) The reflection dip shift of the fabricated LOF sensor in different anions.



**Fig. S3.** (a) Normalized reflection spectra of the fabricated LOF sensor in deionized water,  $\text{SCN}^-$  solution and mixed solution of  $\text{SCN}^-$  and multiple interfering anions. (b) The reflection dip shift of the fabricated LOF sensor in  $\text{SCN}^-$  solution and mixed solution of  $\text{SCN}^-$  and multiple interfering anions.



**Fig. S4.** The time-dependent wavelength of reflection dip shift of the fabricated LOF sensor in SCN<sup>-</sup> solution with different concentration ranges: (a) 0.3 to 0.07 M; (b) 0.3 to 0.05 M.