

## Supporting Information Section

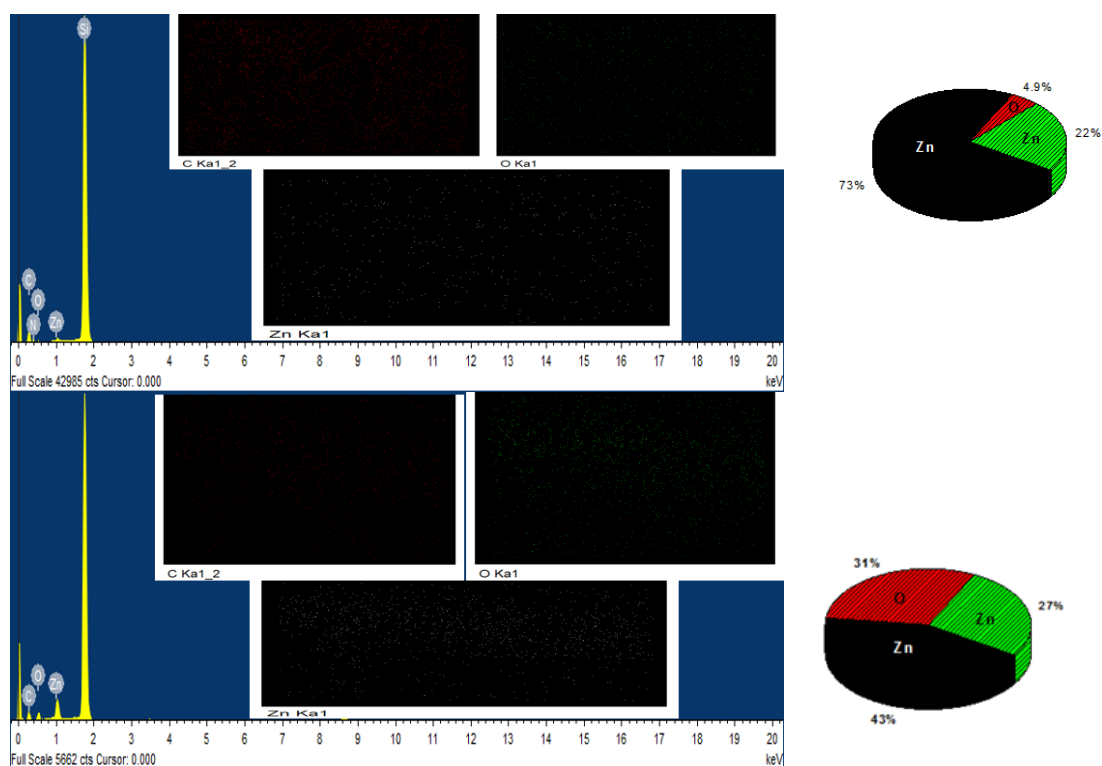
### Multi-walled carbon nanotubes- zinc oxide nanofiber based flexible chemiresistive biosensor for malaria biomarker detection

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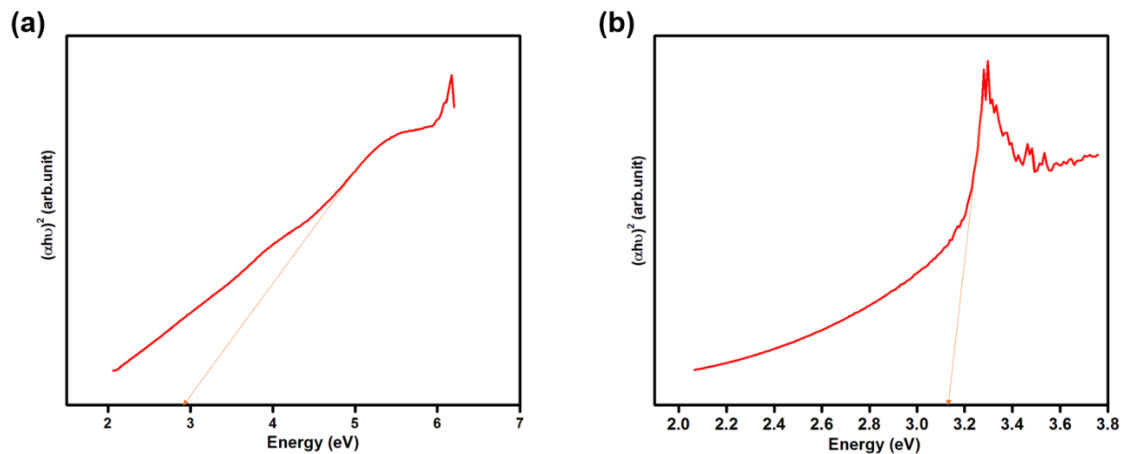
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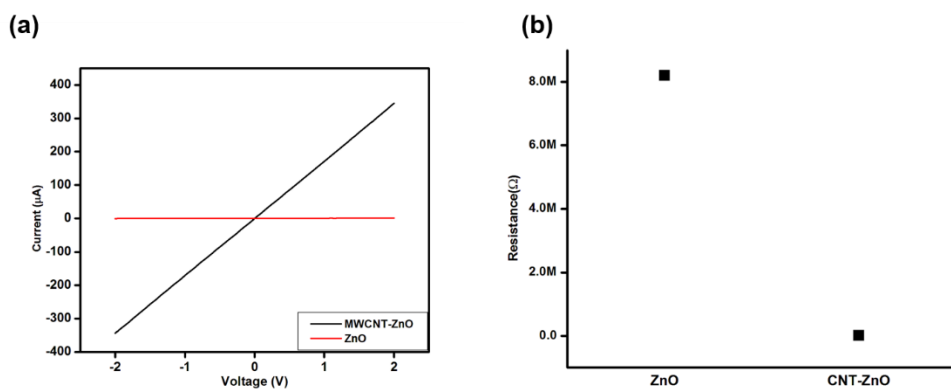
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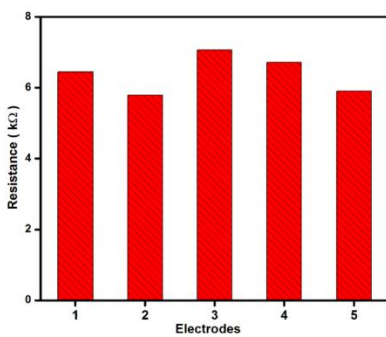
**Fig. S1** EDX spectra nanofibers before and after calcination; Inset showing elemental mapping of nanofibers before and after calcination; Pie chart showing weight percentages of elements before and after calcination.



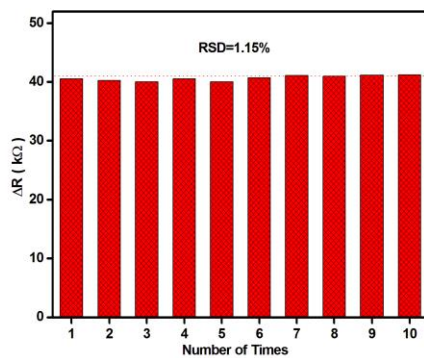
**FIG. S2**  $(\alpha h\nu)^2$  vs Photon energy( $h\nu$ ) plot for **(a)** CNT-ZnO nanofiber **(b)** ZnO nanofiber.



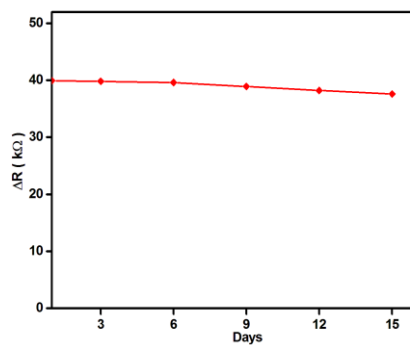
**FIG. S3** (a) I-V characteristics and (b) corresponding resistance plot obtained for the devices fabricated with CNT doped and un doped ZnO nanofibers



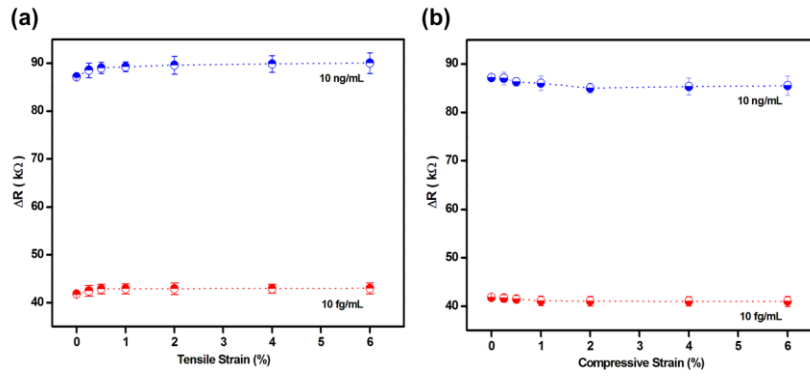
**FIG. S4** Reproducibility of the five different nanofiber device fabricated with similar conditions.



**FIG. S5** Repeatability of the device



**FIG. S6** The stability of the device for 15 days at an regular interval of 3 days



**FIG. S7** Response of the device in terms of change in resistance  $\Delta R$  for two different HRP2 concentrations, with different (a) tensile strain (b) compressive strain