

## Electronic Supplementary information

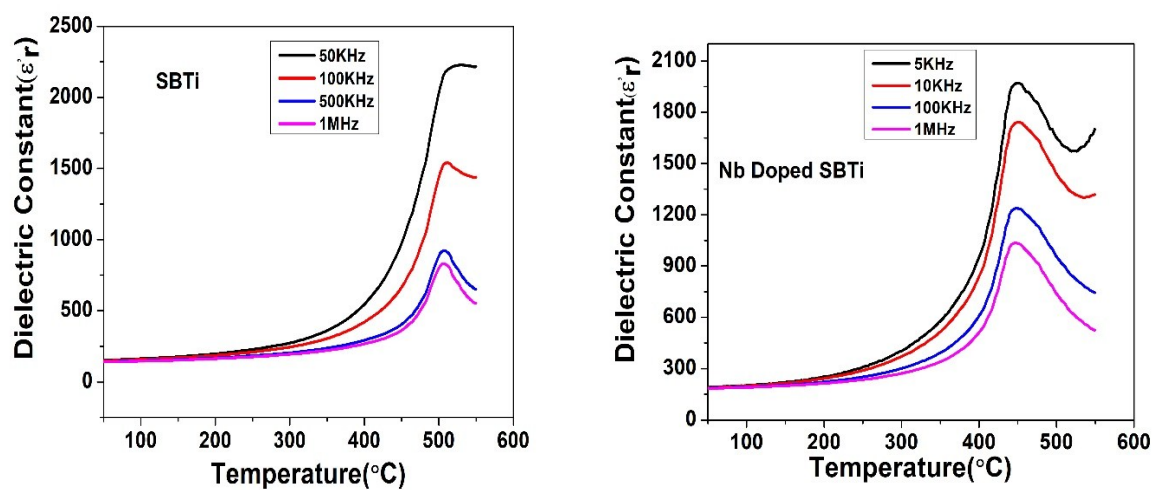


Figure: Dielectric constant versus temperature at different frequencies.

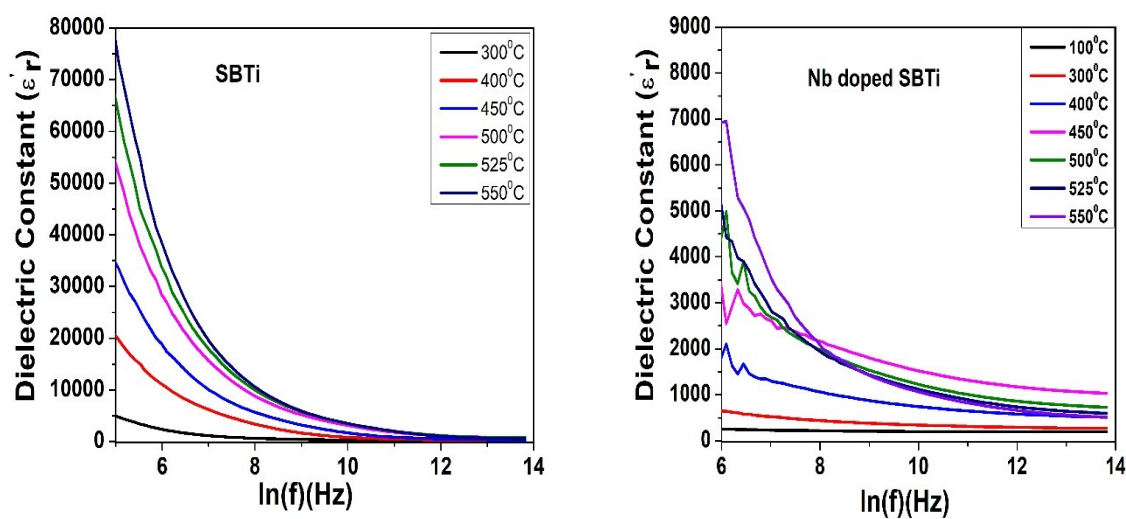


Figure: Frequency response of dielectric constant at different temperatures.

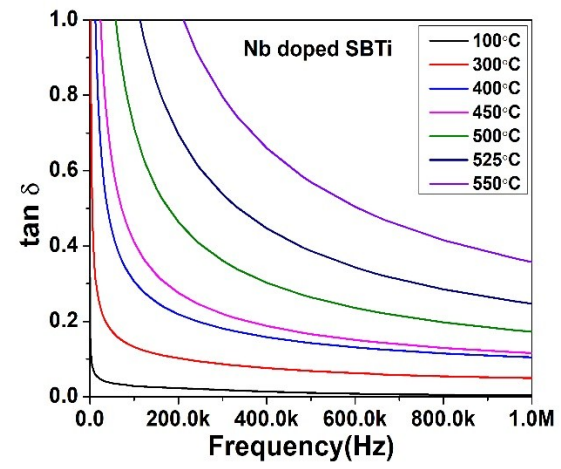
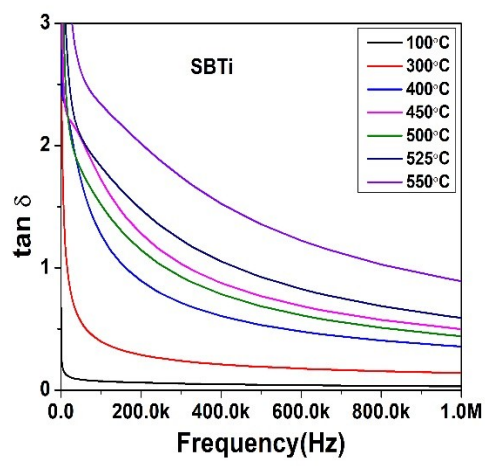


Figure: Frequency response of dielectric loss ( $\tan \delta$ ) at different temperatures.