Conducting Polymer Material Characterization Using Planar Transmission Line Measurement
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- Characterization of conducting polymer material, P3HT
  - DC analysis: MIS capacitor
  - High frequency analysis: CPW

- DC Analysis

SiO₂ thickness = 500Å

![Graph showing capacitance vs. bias voltage for different conditions.](image)

- High frequency analysis

![Graph showing S21 vs. frequency for different conditions.](image)

- MAJOR OBSERVATIONS
  - \(\varepsilon_r, \text{P3HT} = 4.4\) from DC analysis
  - Conducting nature of P3HT is observed in high frequency analysis.

- Publications
  - Presented at 2008 IEEE International Symposium on Antenna and Propagation and USNC/URSI National Radio Science Meeting