

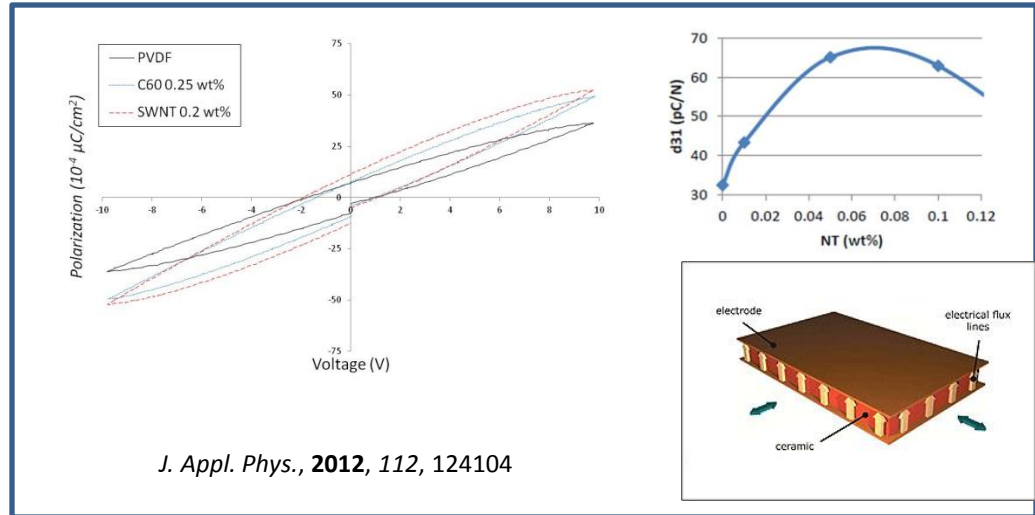
PVDF Nanocomposite Piezoelectric Materials

Project PI: Dennis W. Smith, Jr.
 Students: Cary Baur
 Institution: UT Dallas
 Department: Chemistry

Test Bed: Energy Generation

Thrusts: Mechanical & Electrical

Objective: To enhance the piezoelectric performance of piezoelectric polymers through the addition of nanoparticles



Summary of Significant Findings:

- 2x enhancement in piezoelectric performance
- Optimized Young's modulus, dielectric constant, and d_{31}
- $k_{31} = 2x$ greater than pure PVDF

