

# Supplementary Information

## Dielectric behavior of stretchable silicone rubber-barium titanate composites

Argyri Drymiskianaki<sup>1,2</sup>, Klytaimnistra Katsara<sup>2,3</sup>, Alexandra Manousaki<sup>2</sup>, Zacharias Viskadourakis<sup>2\*</sup> and George Kenanakis<sup>2\*</sup>

<sup>1</sup> Department of Materials Science and Technology, University of Crete, GR-70013 Heraklion, Crete, Greece; adrym@materials.uoc.gr

<sup>2</sup> Institute of Electronic Structure and Laser (IESL)—Foundation for Research and Technology—Hellas (FORTH), 100 N. Plastira, Vassilika Vouton, GR-70013 Heraklion, Crete, Greece; klyto.katsara@iesl.forth.gr (K.K.); manousa@iesl.forth.gr (A.M.)

<sup>3</sup> Department of Agriculture, Hellenic Mediterranean University, Estavromenos, GR-71410 Heraklion, Crete, Greece

\* Correspondence: zach@iesl.forth.gr (Z.V.); gkenanak@iesl.forth.gr (G.K.)

## EXPERIMENTAL SECTION

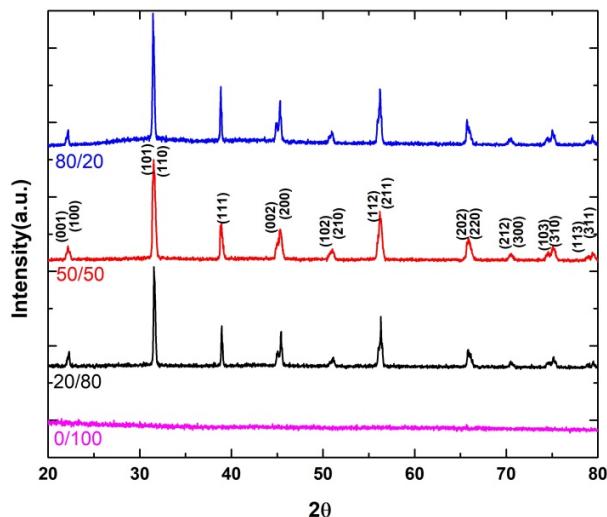
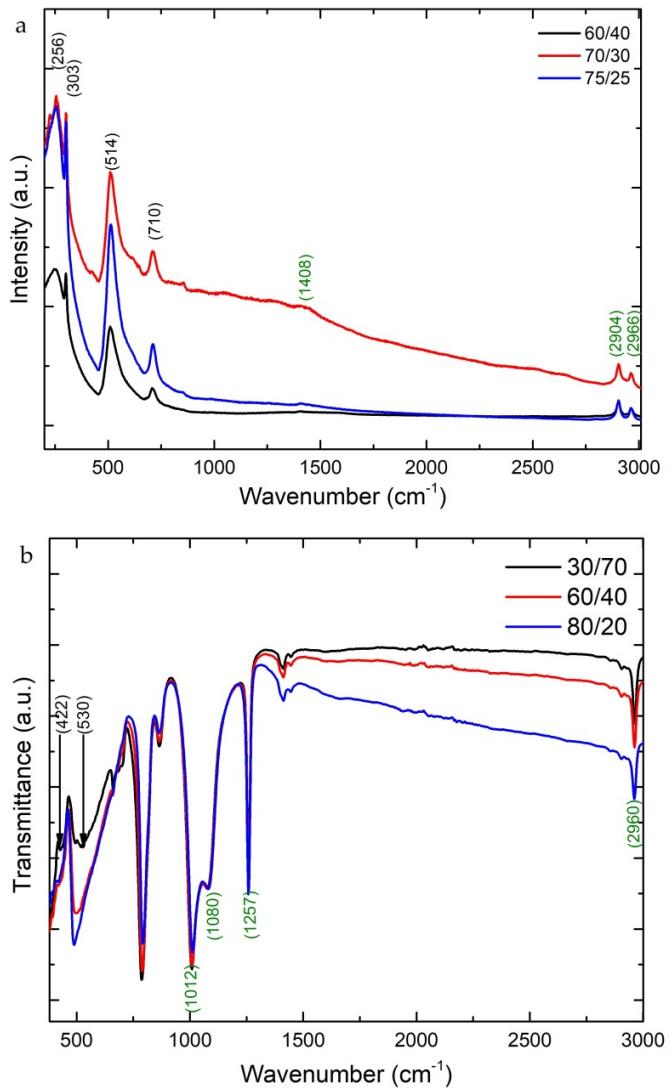
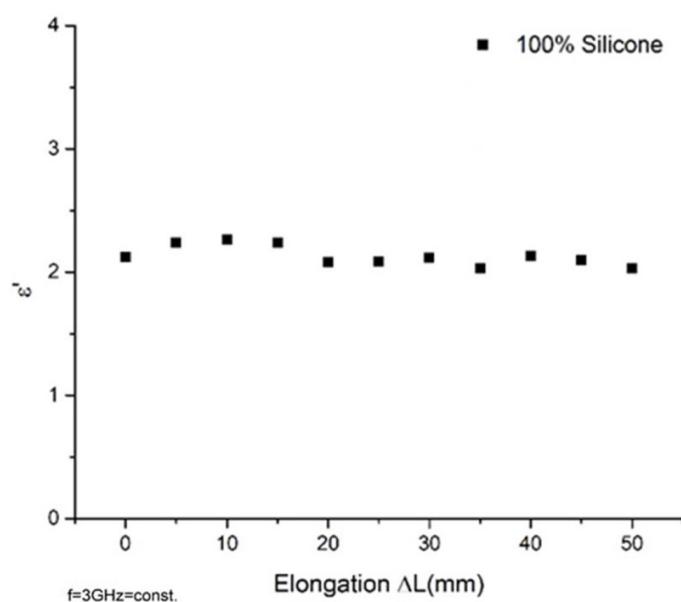


Figure S1. XRD patterns for BTO/silicone composites at various mass ratios ( $m_{\text{BTO}}/m_{\text{silicone}}$ ).



**Figure S2.** (a) Raman spectra for BTO/silicone composites at various mass ratios. Green highlighted peaks are assigned to silicone. (b) FTIR spectra for BTO/silicone composites at various mass ratios. Green-labeled peaks correspond to silicone.



**Figure S3:** Dielectric constant as a function of uniaxial elongation for pure silicone, at 3GHz.