## **Composition and Temperature Sensitive Conducting Gel**

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## Abstract:

A viscoelastic gel is formed in a surfactant and doped polyaniline mixture. An incorporation of doped polyaniline enhances the rheological properties like viscosity, elasticity and relaxation time of surfactant mixtures as confirmed by rheological measurements. The rheological property of viscoelastic gel with and without polyaniline is dependent on concentration of components, temperature. Additionally, polyaniline-incorporated viscoelastic gel shows interesting conducting properties. Measurements show that the conductivity is sensitive to temperature, concentration of components.



Figure1. a) Self-Standing Conducting Gel, b) SEM, and c) AFM images.