

## Functional Applications of Elastomeric Nanocomposites

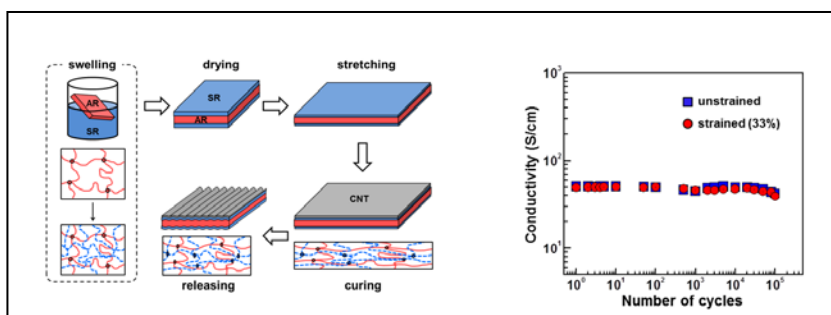
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Since rubbers have been used for long time due to their unique elasticity suitable for various applications such as tires, belts, mounts, and seals, and where the extremely harsh conditions are required, hence no other polymers can accomplish the role of rubbers. Recently, elastic function of rubbers has attracted a great attention for various applications including stretchable displays, dielectric elastomer actuators, sensors, generator and seals for fuel cell vehicles; hence this presentation will cover various applications and issues in the light of recent developments in the area of functional rubber composites. The applications of rubber elasticity in fabrication of bubble shaped actuator, liquid lens, disk-shape rubber generator, and stretchable electrodes based on wrinkled rubbers would also be covered to explain the importance of rubber composites.

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Stretchable electrode system based on wrinkles

### Author Biography:

Name: Professor Changwoon Nah

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Research Interest: His current research interests are functional rubbers including Dielectric elastomer actuators or generators, stretchable electrode system and sensors and reinforcing mechanism of elastomeric polymers by various nanofillers. He published over 200 peer-reviewed papers and book chapters on the mechanical properties of rubbers and plastic materials.

