

Carbon Nanotubes - Elastomer Actuator for Soft Prosthetics

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Abstract: *Prosthetics play an important role as a substitute for any essential part of body. Soft prosthetic is an attempt at making these artificial devices more human-like. The main focus of this paper is the use of a carbon nanotube- elastomer based compound material as an actuator for prosthetic devices. One of the main limitations of Electroactive Polymer (EAP), which is high applied voltage, is overcome in this approach by using carbon nanotube (CNT) yarn permeated with a mixture of elastomer and methanol. The actuation is based on phase transition and this concept can be implemented for soft prosthetics.*

Keywords: Carbon nanotubes, elastomer, actuator, soft prosthetic, etc

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