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Sommario/riassunto

Biomimetic Robotic Artificial Muscles presents a comprehensive up-to-date overview of several types of electroactive materials with a view of using them as biomimetic artificial muscles. The purpose of the book is to provide a focused, in-depth, yet self-contained treatment of recent advances made in several promising EAP materials. In particular, ionic polymer-metal composites, conjugated polymers, and dielectric elastomers are considered. Manufacturing, physical characterization, modeling, and control of the materials are presented. Namely, the book adopts a systems perspective to integrate