Contents

Part I  Materials, Processes, Mechanics, and Devices for Soft/Stretchable Electronics

1  Liquid Metals for Soft and Stretchable Electronics  ..............  3
   Michael D. Dickey

2  Stretchability, Conformability, and Low-Cost Manufacture of Epidermal Sensors ............................ 31
   Nanshu Lu, Shixuan Yang and Liu Wang

3  Mechanics and Designs of Stretchable Bioelectronics  .......  53
   Yihui Zhang

4  Soft Power: Stretchable and Ultra-Flexible Energy Sources for Wearable and Implantable Devices  ..........  69
   Timothy F. O’Connor, Suchol Savagatrup and Darren J. Lipomi

5  Wireless Applications of Conformal Bioelectronics  ...........  83
   Yei Hwan Jung, Huilong Zhang and Zhenqiang Ma

Part II  Wearable Electronics Systems

6  Ultrathin, Skin-Like Devices for Precise, Continuous Thermal Property Mapping of Human Skin and Soft Tissues  ........  117
   R. Chad Webb, Siddharth Krishnan and John A. Rogers

7  Soft Biosensor Systems Using Flexible and Stretchable Electronics Technology  ..............................  133
   Tsuyoshi Sekitani

8  High-Performance Wearable Bioelectronics Integrated with Functional Nanomaterials  .................  151
   Donghee Son, Ja Hoon Koo, Jongsu Lee and Dae-Hyeong Kim
Stretchable Bioelectronics for Medical Devices and Systems
Rogers, J.A.; Ghaffari, R.; Kim, D.-H. (Eds.)
2016, XII, 314 p. 93 illus., 91 illus. in color., Hardcover
ISBN: 978-3-319-28692-1