Advancements in Flexible Electronics: A Review

Kai Thompson
PhD
Technical University of Munich
Arcisstraße 21, 80333 Munich, Germany

Skyler Smith
Dr.
Massachusetts Institute of Technology
77 Massachusetts Ave, Cambridge, MA 02139, USA

Quinn Carter
Prof.
University of Tokyo
7 Chome-3-1 Hongo, Bunkyo City, Tokyo 113-8654, Japan

Abstract. This article reviews the latest advancements in flexible electronics, focusing on materials, fabrication techniques, and applications. Flexible electronics have gained significant attention due to their potential in wearable devices, medical implants, and flexible displays. The article discusses the current state of research and highlights the challenges and future prospects in the field. Emphasis is placed on the role of organic and inorganic materials in enhancing the performance and flexibility of electronic components.

Keywords: Flexible electronics, Wearable devices, Organic semiconductors, Flexible displays, Medical implants

Introduction

Flexible electronics represent a paradigm shift in the design and application of electronic devices. Their inherent flexibility allows for integration into a variety of non-traditional surfaces, making them ideal for applications such as wearable devices, flexible displays, and medical implants. Recent advancements have been driven by innovations in material science, particularly the development of organic semiconductors and flexible substrates. This review aims to provide an overview of the current state of flexible electronics, addressing key materials and fabrication techniques, as well as discussing the potential future directions and challenges in the field.

References

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