

Advancements in Superconducting Materials

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Abstract. Superconducting materials have revolutionized the field of condensed matter physics. This article reviews recent advancements in high-temperature superconductors and their applications in technology, from medical imaging to quantum computing.

Keywords: superconductivity, condensed matter, high-temperature superconductors, energy transmission, quantum computing

Introduction

The discovery of superconductivity marked a milestone in condensed matter physics, offering a pathway to lossless energy transmission and powerful magnetic fields. Recent advancements have focused on high-temperature superconductors, which operate at more practical temperatures. This paper explores the latest developments in superconducting materials, highlighting their applications in various technologies and potential for future innovations.

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