

## HIGH TEMPERATURE SUPERCONDUCTOR MATERIALS AND APPLICATIONS

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### ABSTRACT

Research on materials continues to play a pivotal role towards the advancement of technology. One of the promising materials for advanced electrical and electronic applications is the copper-oxide-based high temperature superconductor (HTSC). Today, the focus is once again on superconductivity following a number of breakthroughs and discoveries in this field in recent years. In this paper, a number of newly discovered superconducting materials would be discussed. Applications of superconductors in various sectors such as the communications, power and electronic are highlighted. A superconductor-magnetic nanorod hybrid system which can potentially increase the ability of superconductors to carry current by many folds is also discussed.

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