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# Advances in Cuprates and Iron-Based Superconductors: Physics, Properties, and Applications

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## **Message from the Guest Editors**

The discovery of superconductivity in cuprates was received with great enthusiasm due to the fact that  $T_c$  can exceed the temperature of liquid nitrogen in many cases. Nevertheless, due to issues such as high anisotropy values, superconductor–insulator–superconductor (SIS) grain boundary junction, etc., materials like YBCO or BSCCO have never been fully exploited for superconductivity power applications. Nevertheless, the interest in these materials has always existed. Furthermore, despite having a lower  $T_c$  than cuprates, iron-based superconductors (IBSs) exhibit higher  $J_c$  and  $H_{c2}$  values along with lower values of anisotropy and superconductor–normal–superconductor (SNS) grain boundary junction, and thus have been proposed as a valid alternative to cuprates.

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