

Applications of Superconductivity

To date, applications have mostly been specialized. In particular, it is much cheaper to operate high field (high current) electromagnets if the wire is superconducting.

MRI



LHC accelerator



Superconducting Quantum Interference Devices (SQUIDs) are also used to make very sensitive magnetic field measurements (e.g., to make part in 10^{12} measurements of magnetic susceptibility).

<http://rich.phekda.org/squid/technical/part4.html>



The holy grail of SC technology is electrical power distribution (7% is lost in the power grid). This is one reason HiT_c superconductors are important, but it's not yet competitive.

<http://www.nano-opt.jp/en/superconductor.html>

