

Superconductivity in Sr_2RuO_4 and $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$

between the ions in each compound (compare Table 6 and Table 7), which is reflected on their different Debye temperatures.

The results for the superconducting constants in the bottom table point out that the superconductivity in Sr_2RuO_4 is BCS-like whereas the superconductivity in $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ could also correspond to the BCS theory or, on the other hand, an as yet unknown second pairing mechanism must be available.

Superconductor	c
Sr_2RuO_4	2.43
$\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$	0.91

Table 11: Calculated superconducting constant in Sr_2RuO_4 and $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$.

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