

## Pengaruh substitusi gadolinium terhadap lantanum pada superkonduktor $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$

Muhammad Margono, author

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### Abstrak

Telah dilakukan substitusi parsial Gd terhadap La pada sistem superkonduktor suhu kritis tinggi  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$ , momen magnet Gd diharapkan akan merusak superkonduktivitas bahan dan menurunkan  $T_c$ . Pengukuran  $T_c$ -nya dilakukan dengan alat susceptometer. Konsentrasi Gd dari senyawa  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$  bervariasi dari  $x = 0$  sampai dengan 0.16. Hasil penguluran, memperlihatkan penurunan  $T_c$  yang relatif lambat.

.....Partial substitution of Gd for La had been conducted in high- $T_c$   $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$  superconductor system, Gd magnetic moment was expected to reduce superconductivity and decrease critical temperature  $T_c$ .  $T_c$  measurement was performed by using an ac susceptometer. Gd concentration of  $\text{La}_{1.85}\text{Sr}_{0.15}\text{CuO}_4$  compound was varied from  $x = 0$  up to 0.16. The result showed that  $T_c$  decrease was relatively slow.