

Resistance and a.c. susceptibility of $\text{YBa}_2\text{Cu}_3\text{O}_x$ films on Ag substrates by DC and MF magnetron sputtering

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The thin films of $\text{YBa}_2\text{Cu}_3\text{O}_x$ were obtained by the DC and MF magnetron sputtering technique. The films were deposited directly on the polished polycrystalline silver substrates without any buffer layers. The polished silver used as the substrates for the YBCO films were covered by the thin films of the silver using the DC magnetron sputtering. The thickness of these films are in the order of several nanometers. The resistance and the a.c. susceptibility of the superconducting films obtained were measured and the critical temperatures and the critical currents were determined.