YBaCuO SUPERCONDUCTORS
WITH MODIFIED STOICHIOMETRY

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ABSTRACT The YBa\textsubscript{2}Cu\textsubscript{3}O\textsubscript{7-x} compound, called also “Y-123”, is one of the most important superconducting materials. Recent literature reports show the possibility of increasing the critical temperature of superconducting compounds based on yttrium. In the case of a compound of the stoichiometry Y-358 the reported value of $T_c$ is over 100 K. The possibility of increasing the critical temperature by simply modification of the technological process, while keeping the other electric and magnetic parameters, creates new perspectives for YBCO applications. This paper presents results of research on electrical and structural properties of bulk samples of Y-358 superconductors. The results confirm the most important feature of the new compound, i.e. the increased value of $T_c$.

Keywords: superconductivity, high-Tc superconductors