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**Strong-coupling description of the high-temperature  
superconductivity in the molecular hydrogen**

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The detailed study of the selected thermodynamic properties of the superconducting phase in the molecular hydrogen under the pressure at 428 GPa has been presented. For the increasing value of the Coulomb pseudopotential,  $\mu^* \in \langle 0.08, 0.15 \rangle$ , the following results have been obtained: (i) the critical temperature decreases from 179 K to 141 K, (ii) the ratio  $R_1 \equiv 2\Delta(0)/k_B T_C$  differs noticeably from the BCS value:  $R_1 \in \langle 4.71, 3.60 \rangle$ ; (iii) the electron effective mass is large and grows slightly together with the temperature ( $[m_e^*/m_e]_{\max} = 2.2$  for  $T = T_C$ ).