

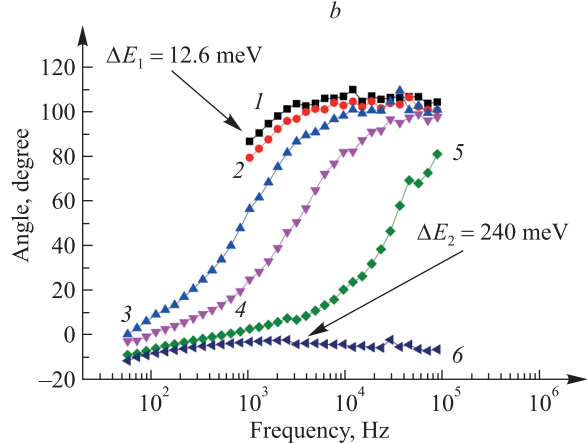
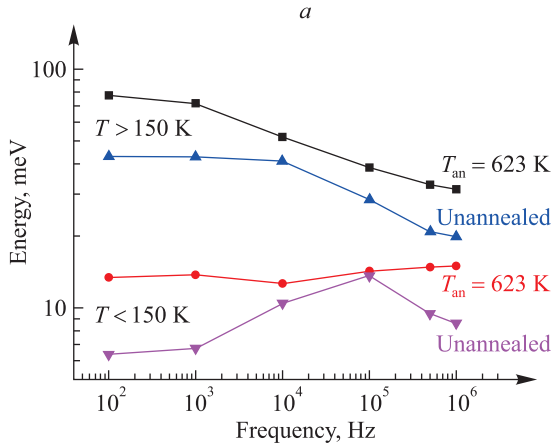


Fig. 5. Frequency dependences of the energy characteristics in the region of high and low temperatures for the $(\text{Fe}_{0.45}\text{Co}_{0.45}\text{Zr}_{0.10})_{0.50}(\text{Al}_2\text{O}_3)_{0.50}$ film deposited in an Ar – O₂ mixture (without annealing and at $T_{\text{an}} = 623$ K) (*a*) and the phase angle for the $(\text{Fe}_{0.45}\text{Co}_{0.45}\text{Zr}_{0.10})_{0.52}(\text{PZT})_{0.48}$ film deposited in an Ar – O₂ mixture at $P_{\text{O}_2} = 3.0 \cdot 10^{-3}$ Pa at different temperatures (1 – 80 K, 2 – 123 K, 3 – 173 K, 4 – 223 K, 5 – 273 K, 6 – 303 K) with the corresponding energy characteristics (*b*)