



Fig. 6 – Sensitivity analysis of sandstone rock heterogeneity using Microbe 3, $d_x = 2.88 \times 10^{-2} \text{ h}^{-1}$ and $t_{\text{pulse}} = 57.6 \text{ h}$ during MEOR under varying temperature, salinity and pH conditions: (a) temporal distribution of intrinsic or absolute permeability at $x = 0.004 \text{ m}$ from the influent point within homogeneous ($a_{\beta} = -1.0, \beta_{\min} = 0.4$), intermediate ($a_{\beta} = -1.7, \beta_{\min} = 0.75$) and heterogeneous ($a_{\beta} = -1.9, \beta_{\min} = 0.9$) sandstone porous media; and (b) spatial evolution of intrinsic permeability within homogeneous, intermediate and heterogeneous sandstone cores at $t = 600 \text{ h}$.