Abstract
The kinetics of radiation creep of number aluminum and silver based model alloys, as well as vanadium based structural alloys under electrons irradiation is studied. The effect of electron irradiation on the creep rate of various metals and alloys confirm the mechanism of dynamic preference of the transient stage of radiation creep. It is shown experimentally that the mobility of radiation-induced point defects determined the creep rate of metals and alloys under irradiation. The resulting radiation effect of acceleration or deceleration of creep rate under irradiation is determined by the structural-phase state of alloys. The study of radiation creep of vanadium based structural alloys shows that V-Ga-Si type alloys have a higher radiation resistance than V-Cr-Ti alloys.