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Activation Enthalpy of Migration Dislocation by Nuclear Technique M. A. Abdel-Rahman, M. S. Abdallah, and E. A. Badawi\* Physics Department, Faculty of Science El-Minia University Egypt \*e-mail: emadbadawi@vahoo.com

Positron annihilation lifetime is one of the most important nuclear techniques used in material science (defect formation and migration). Positron lifetime ( $\tau$ ) measurements are performed to study defect annealing in AlSiio.9Mgo.i 7810.06 casting Alloys during isochronal and isothermal heat treatment. Two stages during isochronal treatment has been observed, one for point defects recovery and the other for dislocation. Isothermal annealing at temperature 553, 583, 613 and 643 K was performed to determine the activation energy which calculated as 0.86 #+-# 0.12 eV.