

Table of Contents

Determination of the Activation Energy for Formation and Migration of Thermal Vacancies in 401.0 Casting Aluminum Alloy N.A. Kamel, S.A. Aly, A.A. Ibrahim and E.A. Badawi	1
A Study of the Effect of Natural Aging on Some Plastically Deformed Aluminum Alloys Using Two Different Techniques N.A. Kamel	5
Estimation of Crystalline Size of Deformed 5251 Al Alloy Using PALT and XRD Techniques M. Abdel-Rahman, A.G. Attallah, M. El-Sayed, A.A. Ibrahim, A.A. Akel, A.E. Ali and E.A. Badawi	11
Determination of the Activation Energy for Formation and Migration of Thermal Vacancies in 2024 Aircraft Material Using Different Techniques and Methods N.A. Kamel	19
Annealing Study of Al-Mg Wrought Alloys Using Two Different Techniques and Estimation of the Activation Enthalpy of Migrating Defects A.G. Attallah, M.A. Abdel-Rahman, M. El-Sayed, A.A. Ibhraim, S.A. Aly and E.A. Badawi	29
Studying the Formation of Fe₂SiO₄ and Pearlite Phases in Iron-Silica Sand Nanoparticle Composites T. Ahmad, O. Mamat, R. Ahmad and A.N. Malik	39
Studies of Knight Shifts and Hyperfine Structure Constants of Tl₂Ba₂CuO_{6+y} M.Q. Kuang, S.Y. Wu, X.F. Hu and B.T. Song	49
Abstracts	55