

ABSTRACT

Fractal dimension is an increasingly important method in material sciences. The searching for a possible correlation between fractal dimension and impact energy are current interest. This paper present the results of an experimentally study made on the correlation between the fractal dimension and the impact energy in aluminum alloy by using scatted diagram. The impact energy of aluminum alloy was obtained by using Charpy Impact Test. The micrographs of fractured aluminum alloy were analyzed with the IFM (Infinite Focus Measurement) profile to determine the parameter of fractal dimension. The result shows the relationship established between fractal dimension and impact energy.

Keywords: Fractal dimension, impact energy (J), IFM, AA6061 and AA6063