Evaluation of Applied Magnetic Field on Reduction Efficiency of Alumina Powder

SATOSATOSATO YUSUKE, RYO MYOEN, MAKOTO MATSUI, MAKOTO MATSUI, KIMIYA KOMURASAKI, YOSHIHIRO ARAKAWA, University of Tokyo — Alumina reduction method using laser sustained plasma (LSP) is proposed for energy storage system using aluminum. In our previous study, the averaged reduction efficiency in the plasma was estimated as five percent. Aluminum has property which is easily oxidized. Therefore, active separation of oxygen and aluminum is important for enhancement of collection efficiency. In this research, Al ion is separate from oxygen by applying magnetic field.

Sato Yusuke
Shizuoka University

Date submitted: 19 Jun 2015