

## Development of new Ecological Cleaning Process of Metal Sheets

**Authors :** L. M. López López, J. V. Montesdeoca Contreras, A. R. Cuji Fajardo, L. E. Garzón Muñoz, J. I. Fajardo Seminario

**Abstract :** In this article a new method of cleaning process of metal sheets for household appliances was developed, using low-pressure cold plasma. In this context, this research consist in analyze the results of metal sheets cleaning process using plasma and compare with pickling process to determinate the efficiency of each process and the level of contamination produced. Surface Cleaning was evaluated by measuring the contact angle with deionized water, diiodo methane and ethylene glycol, for the calculus of the surface free energy by means of the Fowkes theories and Wu. Showing that low-pressure cold plasma is very efficient both in cleaning process how in environment impact.

**Keywords :** efficient use of plasma, ecological impact of plasma, metal sheets cleaning means, plasma cleaning process.

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