

## MODIFICATIONS IN THE SUPERFICIAL LAYER AT THE ELECTRO-SPARK PROCESSING

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**Abstract:** The process of electro-spark deposition is inclusively used for the superficial micro-alloying layers of metallic materials affected by intense efforts. In this paper, the results of the experimental research concerning the micro-alloying by electro-spark are presented. Within the experiments, equipment for deposition by electro-sparks was used; some work parameters were changed during the experiments. The results of these experiments have been used in order to emphasize the influence of some input parameters concretized by the tension  $U_v$  at the vibrator coil, the  $U_D$  tension of the discharge current and the initial surface roughness  $R_{ai}$  over the surface roughness obtained  $R_{af}$  as a result of the processing. For the later research, a method of processing through electric sparks was conceived, through which the control over the processing speed and its uniformity was possible.

**Key words:** electro-spark, electroerosion, deposition, micro-alloying, superficial layers.