

# The control parameters of automatic control system of the process of producing ferromagnetic powders by plasma erosion of a metallic anode

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## Abstract

© 2016 IEEE. The article proposes the procedure of the full-factor design of an experiment on determining regression equations for powder dispersion and productivity, which allows determining the optimal parameters for an automated plasma electro-heat unit for producing ferromagnetic powder with strictly predetermined dispersion and productivity. The maximum and minimum average values of the output parameter were estimated in separate experiments according to the Student's test; homogeneity of variance line-by-line monitoring was assessed according to the Cochran criterion, and hypothesis check of the model adequacy was done according to the Fisher's test.

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## Keywords

computer-aided control system, ferromagnetic powder, plasma, plasma erosion of metal, plasma physics

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