Research of the influence of the geometry of the discharge chamber on the characteristics of the arc plasmatron.

Dautov G., Kashapov N., Dautov I., Sofronitskiy A. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2018 Institute of Physics Publishing. All rights reserved. This work shows the possibility of a significant effect on the characteristics of the plasma torch by changing the diameter of the arc chamber along its length.

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References

- [1] Dautov G Yu, Dzyuba V L and Karp I N 1984 Plasma torches with stabilized arc Kiev: Nauk.dumka 168
- [2] Zhukov M F, Koroteev A S and Uryukov B A 1975 Applied dynamics of thermal plasma Novosibirsk, Nauka 298
- [3] Yasko O I 1977 The electric arc in the plasma torch Minsk: Science and Technology 151
- [4] Yurevich F B and Kulikov V S 1973 Electric arc heating of gas Minsk: Science and Technology 189
- [5] Mustafin G M 1968 Characteristics of a stabilized arc in a channel with a distributed gas supply PMTF 124-129
- [6] Dautov G Yu and Sazonov M I 1967 The electric field strength in a stabilized vortex arc PMTF 127-131
- [7] Sadikov K G, Sofronitskiy A O and Dautov I G 2017 Functional plasma sprayed coatings on magnesium ceramic substrates Journal of Physics: Conference Series 789 012043 conference 1