

Dear Reviewer,

The paper was corrected based on your comments, and the revised manuscript was submitted.  
Thank you for your consideration, and I look forward to hearing from you.

Sincerely,

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Responses for comments:

1) In the abstract not only the results and conclusion but also the methods for their obtaining should be described.

Response: To describe the methods for obtaining the results, “A plasma pattern is reproduced by coupling simulations between a particle-in-cell with Monte Carlo collisions model and a finite-difference time-domain simulation for an electromagnetic wave propagation when an external magnetic field is applied to the breakdown volume inside a microwave-rocket nozzle.” was added in the abstract. For the shock wave simulation, “The shock wave propagation is numerically reproduced by solving the compressible Euler equation with an energy source of the microwave heating.” was also added in the abstract.

2) Please, describe in more detail the applied external magnetic field.

Response: Figure 1 was added to describe details of the applied magnetic field.