



OPEN ACCESS

EDITED AND REVIEWED BY Amar Prasad Misra, Visva-Bharati University, India

*CORRESPONDENCE
Francesco Taccogna,

☑ francesco.taccogna@cnr.it

RECEIVED 27 April 2024 ACCEPTED 06 May 2024 PUBLISHED 24 May 2024

CITATION

Taccogna F, Cichocki F and Minelli P (2024), Corrigendum: Coupling plasma physics and chemistry in the PIC model of electric propulsion: application to an air-breathing, low-power Hall thruster. Front. Phys. 12:1424344. doi: 10.3389/fphy.2024.1424344

COPYRIGHT

© 2024 Taccogna, Cichocki and Minelli. This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY). The use, distribution or reproduction in other forums is permitted, provided the original author(s) and the copyright owner(s) are credited and that the original publication in this journal is cited, in accordance with accepted academic practice. No use, distribution or reproduction is permitted which does not comply with these terms.

Corrigendum: Coupling plasma physics and chemistry in the PIC model of electric propulsion: application to an air-breathing, low-power Hall thruster

Francesco Taccogna^{1,2}*, Filippo Cichocki¹ and Pierpaolo Minelli^{1,2}

 1 Institute for Plasma Science and Technology ISTP, CNR, Bari, Italy, 2 National Institute of Nuclear Physics INFN, Bari, Italy

KEYWORDS

kinetic particle-in-cell modeling, test particle Monte Carlo gas dynamics, low power Hall thruster, air-breathing electric propulsion, molecular propellant

A Corrigendum on

Coupling plasma physics and chemistry in the PIC model of electric propulsion: application to an air-breathing, low-power Hall thruster

by Taccogna F, Cichocki F and Minelli P (2022). Front. Phys. 10:1006994. doi: 10.3389/fphy. 2022.1006994

In the published article, there was an error in Table 5 as published. In the last column (Anode Mass flow rate) the incorrect value 0.1 mg/s was reported. The correct value is 1.0 mg/s. The corrected Table 5 and its caption appear below.

In the published article, there was an error. The reported mass flow rate of 0.1 mg/s is incorrect

A correction has been made to 3 Results. This sentence previously stated:

"For the different propellants analyzed, the mass flow rate is fixed at $\dot{m} = 0.1$ mg/s." The corrected sentence appears below:

"For the different propellants analyzed, the mass flow rate is fixed at $\dot{m} = 1.0$ mg/s."

The authors apologize for these errors and state that these do not change the scientific conclusions of the article in any way. The original article has been updated.

Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.

Taccogna et al. 10.3389/fphy.2024.1424344

TABLE 5 Engineering parameters used for the SPT20 simulations.

Engineering parameters	Inner/outer radius (cm)	Channel length (cm)	Discharge voltage (V)	Discharge power (W)	Anode Mass flow rate (mg/s)
Case A: Xe	0.5/1	1	200	56	1.0
Case B: N ₂	0.5/1	1	200	52	1.0
Case C: O ₂	0.5/1	1	200	96	1.0
Case D: N ₂ -O	0.5/1	1	200	84	1.0