



Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics)

By M. Micci, A. Ketsdever



Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever

Micropropulsion is an enabling technology for microspacecraft operations by making missions possible which otherwise could not be performed. For example, the formation and maintenance of platoons of microspacecraft will require a manoeuvring capability to counter orbital perturbations. Microspacecraft missions involving large spacecraft resupply, repair or surveillance will also require manoeuvrability. The mission requirements for microspacecraft will be varied and in some cases a large range of capability might be required on the same spacecraft. Micropropulsion systems must be extremely versatile to address these requirements. It is clear that there is a need for micropropulsion systems from high thrust chemical engines to high specific impulse electric thrusters to fulfill specific missions just as for larger spacecraft. It is becoming increasingly evident that microspacecraft will require efficient propulsion systems to enable many of the missions currently being investigated. The systems constraints on mass, power, maximum voltage and volume with which microspacecraft will have to contend pose several challenges to the propulsion system designer. Micropropulsion concepts that address these limitations in unique and beneficial ways, should be of interest to the microspacecraft community. Written by leading experts in the field, this new book shows the state-of-the-art in micropropulsion concepts and activities at the early stages in the development of this new and exciting research area.

 [Download Micropropulsion for Small Spacecraft \(Progress in ...pdf](#)

 [Read Online Micropropulsion for Small Spacecraft \(Progress i ...pdf](#)

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics)

By M. Micci, A. Ketsdever

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever

Micropropulsion is an enabling technology for microspacecraft operations by making missions possible which otherwise could not be performed. For example, the formation and maintenance of platoons of microspacecraft will require a manoeuvring capability to counter orbital perturbations. Microspacecraft missions involving large spacecraft resupply, repair or surveillance will also require manoeuvrability. The mission requirements for microspacecraft will be varied and in some cases a large range of capability might be required on the same spacecraft. Micropropulsion systems must be extremely versatile to address these requirements. It is clear that there is a need for micropropulsion systems from high thrust chemical engines to high specific impulse electric thrusters to fulfill specific missions just as for larger spacecraft. It is becoming increasingly evident that microspacecraft will require efficient propulsion systems to enable many of the missions currently being investigated. The systems constraints on mass, power, maximum voltage and volume with which microspacecraft will have to contend pose several challenges to the propulsion system designer. Micropropulsion concepts that address these limitations in unique and beneficial ways, should be of interest to the microspacecraft community. Written by leading experts in the field, this new book shows the state-of-the-art in micropropulsion concepts and activities at the early stages in the development of this new and exciting research area.

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever **Bibliography**

- Sales Rank: #3262843 in Books
- Brand: Brand: AIAA
- Published on: 2000-01-01
- Original language: English
- Number of items: 1
- Dimensions: 9.50" h x 6.50" w x 1.25" l,
- Binding: Hardcover
- 491 pages

 [Download Micropropulsion for Small Spacecraft \(Progress in ...pdf](#)

 [Read Online Micropropulsion for Small Spacecraft \(Progress i ...pdf](#)

Download and Read Free Online Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever

Editorial Review

About the Author

Dr. Michael M. Micci is a professor of Aerospace Engineering at Pennsylvania State University. His research areas include solid propellant, liquid propellant, and electric rocket propulsion. He received his B.S. and M.S. degrees in aeronautical and astronautical engineering from the University of Illinois at Urbana-Champaign and his Ph.D. in mechanical and aerospace engineering from Princeton University.

Dr. Andrew D. Ketsdever received a Ph.D. in aerospace engineering from the University of Southern California (USC). He is a member of the engineering research staff at the Air Force Research Laboratory's Propulsion Directorate as well as an adjunct professor in the Department of Aerospace and Mechanical Engineering at USC. Current research interests include micropropulsion systems, gas-surface interactions, spacecraft-thruster interactions, microelectromechanical device flow characterization, microscale heat transfer, and small scale plasma generation.

Users Review

From reader reviews:

Concepcion Maldonado:

Book is to be different per grade. Book for children until adult are different content. We all know that that book is very important for us. The book Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) has been making you to know about other expertise and of course you can take more information. It is quite advantages for you. The e-book Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) is not only giving you more new information but also for being your friend when you sense bored. You can spend your personal spend time to read your book. Try to make relationship using the book Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics). You never experience lose out for everything in case you read some books.

Enrique Boggs:

In this 21st one hundred year, people become competitive in most way. By being competitive at this point, people have do something to make these individuals survives, being in the middle of often the crowded place and notice by means of surrounding. One thing that oftentimes many people have underestimated the idea for a while is reading. Yep, by reading a guide your ability to survive enhance then having chance to remain than other is high. For you who want to start reading some sort of book, we give you this kind of Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) book as nice and daily reading reserve. Why, because this book is greater than just a book.

Richard Harden:

Do you one of people who can't read satisfying if the sentence chained inside straightway, hold on guys this

specific aren't like that. This Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) book is readable simply by you who hate the straight word style. You will find the information here are arrange for enjoyable examining experience without leaving possibly decrease the knowledge that want to deliver to you. The writer of Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) content conveys the idea easily to understand by many people. The printed and e-book are not different in the articles but it just different available as it. So , do you nevertheless thinking Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) is not loveable to be your top list reading book?

Jessica Duncan:

The book Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) will bring you to the new experience of reading a new book. The author style to elucidate the idea is very unique. In case you try to find new book to learn, this book very ideal to you. The book Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) is much recommended to you to read. You can also get the e-book from your official web site, so you can quicker to read the book.

**Download and Read Online Micropropulsion for Small Spacecraft
(Progress in Astronautics and Aeronautics) By M. Micci, A.
Ketsdever #JWY5N2UA6SD**

Read Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever for online ebook

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever books to read online.

Online Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever ebook PDF download

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever Doc

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever Mobipocket

Micropropulsion for Small Spacecraft (Progress in Astronautics and Aeronautics) By M. Micci, A. Ketsdever EPub