

# Introduction to Dusty Plasma Physics (Series in Plasma Physics)

By P.K Shukla, A.A Mamun



**Introduction to Dusty Plasma Physics (Series in Plasma Physics)** By P.K Shukla, A.A Mamun

Introduction to Dusty Plasma Physics contains a detailed description of the occurrence of dusty plasmas in our Solar System, the Earth's mesosphere, and in laboratory discharges. The book illustrates numerous mechanisms for charging dust particles and provides studies of the grain dynamics under the influence of forces that are common in dusty plasma environments.



Read Online Introduction to Dusty Plasma Physics (Series in ...pdf

# Introduction to Dusty Plasma Physics (Series in Plasma Physics)

By P.K Shukla, A.A Mamun

Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun

Introduction to Dusty Plasma Physics contains a detailed description of the occurrence of dusty plasmas in our Solar System, the Earth's mesosphere, and in laboratory discharges. The book illustrates numerous mechanisms for charging dust particles and provides studies of the grain dynamics under the influence of forces that are common in dusty plasma environments.

### Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun Bibliography

Sales Rank: #3851081 in Books
Published on: 2001-11-15
Original language: English

• Number of items: 1

• Dimensions: 9.25" h x 6.25" w x .75" l, .0 pounds

• Binding: Hardcover

• 450 pages

**▶ Download** Introduction to Dusty Plasma Physics (Series in Pl ...pdf

Read Online Introduction to Dusty Plasma Physics (Series in ...pdf

#### **Editorial Review**

#### Review

"This book is an excellent and timely introduction to the fastest developing branch of plasma physics. While the emphasis is on collective processes in dusty plasmas, an area where the authors are leading authorities, the basic processes of dust charging and their physical and dynamical consequences are discussed in considerable detail. The material is well organized and the writing style is lucid. I consider this book essential reading to anyone who desires an authoritative introduction to this fascinating area of research." Prof D A Mendis, University of California San Diego "This text presents a timely and pertinent introduction to the new area of dusty plasma physics by one of the major contributors to the field and one of his close collaborators. The book begins by indicating the ubiquity and importance of charged dust in plasma environments. The book then develops the physics of dusty plasmas, with particular emphasis on waves, instabilities and nonlinear structures. I am sure that this work will stimulate an already rapidly growing area of physics. It will be useful to both experimentalists and theoreticians who wish to acquire a broad and solid introduction to the field of dusty plasmas." J T Mendonca, Instituto Superior Tecnico, Portugal "The book . . was written by authors who directly participated in the development of dusty plasma theory. It addresses current knowledge about dusty plasmas and summarizes more than 20 years of research in this rapidly evolving subject with its own wide range of topics . . . A useful discussion of the electrodynamics of a dusty plasma containing nonspherical dust particles finalizes the large coverage of collective phenomena . . . Overall, the book gives a comprehensive analysis of basic dusty plasma physics, combining in an original way laboratory and space plasma topics. There is no doubt that the book will find a well-deserved place on the shelves of all the plasma physicists and astrophysicists with an interest in space and laboratory dusty plasmas." Victoria Yaroshenko, Max-Planck-Institut fur Exraterrestrische Physikook is an excellent and timely introduction to the fastest developing branch of plasma physics. While the emphasis is on collective processes in dusty plasmas, an area where the authors are leading authorities, the basic processes of dust charging and their physical and dynamical consequences are discussed in considerable detail. The material is well organized and the writing style is lucid. I consider this book essential reading to anyone who desires an authoritative introduction to this fascinating area of research." Prof D A Mendis, University of California San Diego "This text presents a timely and pertinent introduction to the new area of dusty plasma physics by one of the major contributors to the field and one of his close collaborators. The book begins by indicating the ubiquity and importance of charged dust in plasma environments. The book then develops the physics of dusty plasmas, with particular emphasis on waves, instabilities and nonlinear structures. I am sure that this work will stimulate an already rapidly growing area of physics. It will be useful to both experimentalists and theoreticians who wish to acquire a broad and solid introduction to the field of dusty plasmas." J T Mendonca, Instituto Superior Tecnico, Portugal "The book . . . was written by authors who directly participated in the development of dusty plasma theory. It addresses current knowledge about dusty plasmas and summarizes more than 20 years of research in this rapidly evolving subject with its own wide range of topics . . . A useful discussion of the electrodynamics of a dusty plasma containing nonspherical dust particles finalizes the large coverage of collective phenomena . . . Overall, the book gives a comprehensive analysis of basic dusty plasma physics, combining in an original way laboratory and space plasma topics. There is no doubt that the book will find a well-deserved place on the shelves of all the plasma physicists and astrophysicists with an interest in space and laboratory dusty plasmas." Victoria Yaroshenko, Max-Planck-Institut fur Exraterrestrische Physik

#### **Users Review**

#### From reader reviews:

#### **Doris Simmons:**

What do you about book? It is not important to you? Or just adding material when you require something to explain what the one you have problem? How about your free time? Or are you busy particular person? If you don't have spare time to do others business, it is make one feel bored faster. And you have time? What did you do? All people has many questions above. The doctor has to answer that question due to the fact just their can do this. It said that about e-book. Book is familiar in each person. Yes, it is correct. Because start from on kindergarten until university need this particular Introduction to Dusty Plasma Physics (Series in Plasma Physics) to read.

#### **Paul Howard:**

Do you one among people who can't read enjoyable if the sentence chained inside straightway, hold on guys that aren't like that. This Introduction to Dusty Plasma Physics (Series in Plasma Physics) book is readable through you who hate the straight word style. You will find the information here are arrange for enjoyable reading experience without leaving also decrease the knowledge that want to provide to you. The writer connected with Introduction to Dusty Plasma Physics (Series in Plasma Physics) content conveys thinking easily to understand by many individuals. The printed and e-book are not different in the content but it just different by means of it. So, do you nevertheless thinking Introduction to Dusty Plasma Physics (Series in Plasma Physics) is not loveable to be your top record reading book?

#### **Kimberly Wheatley:**

Beside that Introduction to Dusty Plasma Physics (Series in Plasma Physics) in your phone, it can give you a way to get more close to the new knowledge or information. The information and the knowledge you may got here is fresh from oven so don't always be worry if you feel like an older people live in narrow small town. It is good thing to have Introduction to Dusty Plasma Physics (Series in Plasma Physics) because this book offers for your requirements readable information. Do you often have book but you do not get what it's about. Oh come on, that would not happen if you have this within your hand. The Enjoyable blend here cannot be questionable, similar to treasuring beautiful island. So do you still want to miss the item? Find this book as well as read it from now!

#### **Eva Sexton:**

You will get this Introduction to Dusty Plasma Physics (Series in Plasma Physics) by visit the bookstore or Mall. Only viewing or reviewing it could possibly to be your solve difficulty if you get difficulties to your knowledge. Kinds of this book are various. Not only through written or printed and also can you enjoy this book through e-book. In the modern era just like now, you just looking of your mobile phone and searching what your problem. Right now, choose your own personal ways to get more information about your publication. It is most important to arrange you to ultimately make your knowledge are still change. Let's try to choose correct ways for you.

Download and Read Online Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun #P239K6J0RML

## Read Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun for online ebook

Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun 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 Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun books to read online.

## Online Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun ebook PDF download

Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun Doc

Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun Mobipocket

Introduction to Dusty Plasma Physics (Series in Plasma Physics) By P.K Shukla, A.A Mamun EPub