



Optical Tweezers: Principles and Applications

By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe



Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe

Combining state-of-the-art research with a strong pedagogic approach, this text provides a detailed and complete guide to the theory, practice and applications of optical tweezers. In-depth derivation of the theory of optical trapping and numerical modelling of optical forces are supported by a complete step-by-step design and construction guide for building optical tweezers, with detailed tutorials on collecting and analysing data. Also included are comprehensive reviews of optical tweezers research in fields ranging from cell biology to quantum physics. Featuring numerous exercises and problems throughout, this is an ideal self-contained learning package for advanced lecture and laboratory courses, and an invaluable guide to practitioners wanting to enter the field of optical manipulation. The text is supplemented by www.opticaltweezers.org, a forum for discussion and a source of additional material including free-to-download, customisable research-grade software (OTS) for calculation of optical forces, digital video microscopy, optical tweezers calibration and holographic optical tweezers.

Download Optical Tweezers: Principles and Applications ...pdf

Read Online Optical Tweezers: Principles and Applications ...pdf

Optical Tweezers: Principles and Applications

By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe

Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe

Combining state-of-the-art research with a strong pedagogic approach, this text provides a detailed and complete guide to the theory, practice and applications of optical tweezers. In-depth derivation of the theory of optical trapping and numerical modelling of optical forces are supported by a complete step-by-step design and construction guide for building optical tweezers, with detailed tutorials on collecting and analysing data. Also included are comprehensive reviews of optical tweezers research in fields ranging from cell biology to quantum physics. Featuring numerous exercises and problems throughout, this is an ideal self-contained learning package for advanced lecture and laboratory courses, and an invaluable guide to practitioners wanting to enter the field of optical manipulation. The text is supplemented by www.opticaltweezers.org, a forum for discussion and a source of additional material including free-to-download, customisable research-grade software (OTS) for calculation of optical forces, digital video microscopy, optical tweezers calibration and holographic optical tweezers.

Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe Bibliography

• Sales Rank: #2322928 in Books

• Brand: imusti

Published on: 2016-02-05Original language: English

• Number of items: 1

• Dimensions: 9.69" h x 1.10" w x 7.44" l, 2.95 pounds

• Binding: Hardcover

• 561 pages

Download Optical Tweezers: Principles and Applications ...pdf

Read Online Optical Tweezers: Principles and Applications ...pdf

Download and Read Free Online Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe

Editorial Review

Users Review

From reader reviews:

Darren Billups:

Do you have favorite book? For those who have, what is your favorite's book? Publication is very important thing for us to learn everything in the world. Each book has different aim or even goal; it means that guide has different type. Some people feel enjoy to spend their a chance to read a book. They may be reading whatever they acquire because their hobby is reading a book. What about the person who don't like studying a book? Sometime, individual feel need book if they found difficult problem or even exercise. Well, probably you'll have this Optical Tweezers: Principles and Applications.

Anthony Rodriguez:

The book Optical Tweezers: Principles and Applications make you feel enjoy for your spare time. You may use to make your capable a lot more increase. Book can to become your best friend when you getting anxiety or having big problem along with your subject. If you can make reading through a book Optical Tweezers: Principles and Applications to be your habit, you can get far more advantages, like add your own capable, increase your knowledge about many or all subjects. You can know everything if you like open and read a e-book Optical Tweezers: Principles and Applications. Kinds of book are a lot of. It means that, science guide or encyclopedia or other individuals. So, how do you think about this publication?

Clifford Roselli:

Optical Tweezers: Principles and Applications can be one of your beginner books that are good idea. All of us recommend that straight away because this reserve has good vocabulary that may increase your knowledge in language, easy to understand, bit entertaining but nonetheless delivering the information. The article author giving his/her effort to set every word into pleasure arrangement in writing Optical Tweezers: Principles and Applications although doesn't forget the main stage, giving the reader the hottest along with based confirm resource data that maybe you can be considered one of it. This great information can easily drawn you into fresh stage of crucial considering.

Florinda Redfern:

Are you kind of occupied person, only have 10 or even 15 minute in your moment to upgrading your mind proficiency or thinking skill perhaps analytical thinking? Then you have problem with the book when compared with can satisfy your short period of time to read it because all of this time you only find e-book that need more time to be go through. Optical Tweezers: Principles and Applications can be your answer

given it can be read by you who have those short time problems.

Download and Read Online Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe #36D7PNSYFTO

Read Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe for online ebook

Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe 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 Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe books to read online.

Online Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe ebook PDF download

Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe Doc

Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe Mobipocket

Optical Tweezers: Principles and Applications By Philip H. Jones, Onofrio M. Marag-, Giovanni Volpe EPub