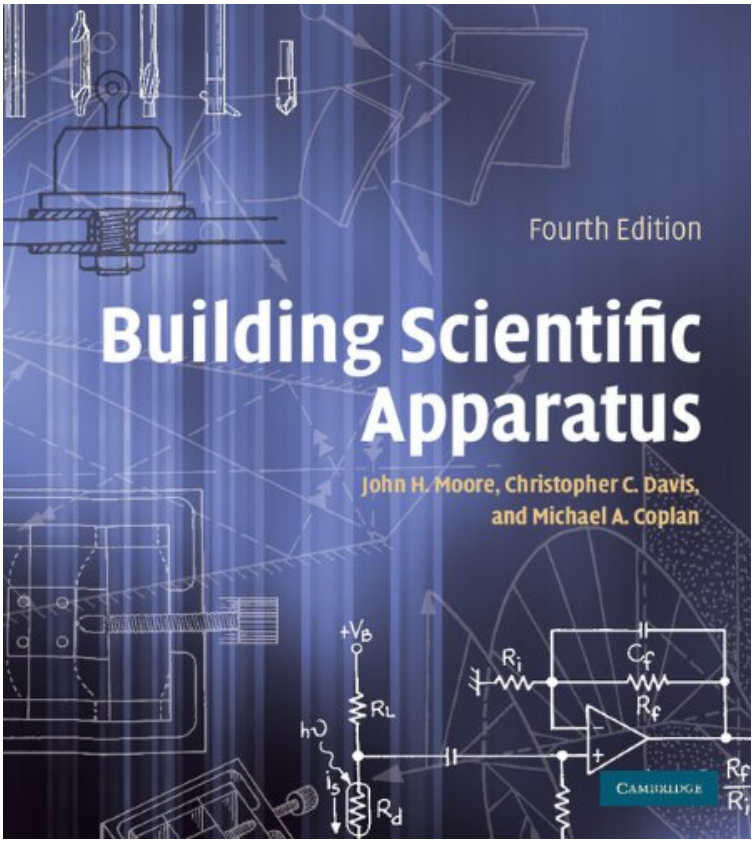
Building Scientific Apparatus



Par John H. Moore, Christopher C. Davis, Michael A. Coplan, Sandra C. Greer
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Dtails sur le produit Publi le: 2009-06-25Sorti le: 2009-06-25Format: Ebook Kindle

Par John H. Moore, Christopher C. Davis, Michael A. Coplan, Sandra C. Greer : Building Scientific Apparatus before purchasing it in order to gage whether or not it would be worth my time, and all praised Building Scientific Apparatus:

Description : Description du produitUtilizing original drawings and examples, this book refines technical jargon to help scientists understand and create the apparatus and mechanisms fundamental to their studies. This best-selling book removes the mystery in building scientific apparatus. Every scientific apparatus requires a mechanical structure, even a device that is fundamentally electronic or optical in nature. A successful scientist must acquire many engineering skills in order to proceed efficiently with an experimental investigation. This volume provides a practical guide for working scientists who need to capitalize on new and unfamiliar technologies as they go about their work.

Prsentation de l'diteurUnrivalled in its coverage and unique in its hands-on approach, this guide to the design and construction of scientific apparatus is essential reading for every scientist and student of engineering, and physical, chemical, and biological sciences. Covering the physical principles governing the operation of the mechanical, optical and electronic parts of an instrument, new sections on detectors, low-temperature measurements, high-pressure apparatus, and updated engineering specifications, as well as 400 figures and tables, have been added to this edition. Data on the properties of materials and components used by manufacturers are included. Mechanical, optical, and electronic construction techniques carried out in the lab, as well as those let out to specialized shops, are also described. Step-by-step instruction supported by many detailed figures, is given for laboratory skills such as soldering electrical components, glassblowing, brazing, and polishing.Revue de presse'This new edition includes updates throughout, and will continue to serve as a bookshelf standard in laboratories around the world. I never like to be too far from this book!'

Jason Hafner, Rice University, Houston, Texas' the first book I reach for to remind myself of an experimental technique, or to start learning a new one. With valuable additions , the newest addition will be a welcome replacement for our lab's well-thumbed previous editions of BSA.' Brian King, McMaster University, Canada' a mine of useful information ranging from tables of the properties of materials to lists of manufacturers and suppliers. This book would be an invaluable resource in any laboratory in the physical sciences and beyond.' George King, University of Manchester' concentrating several careers' worth of equipment-building experience into a single volume a thoroughly revised and updated edition of a 25-year-old classic. It is a 'must-have' on the shelf of every research lab.' Nicholas Spencer, Eidgenssische Technische Hochschule, Zrich'This book is a unique resource for the beginning experimenter, and remains valuable throughout a scientist's career. Professional engineers I know also own and enjoy using the book.' Eric Zimmerman, University of Colorado at Boulder, Colorado' a fascinating and extremely useful reference work. Anyone who works with scientific apparatus will benefit from this book, undergraduate students, professors, technicians and postdocs. If you do not have one already, buy one now!' Contemporary PhysicsPrsentation de l'diteurUnrivalled in its coverage and unique in its hands-on approach, this guide to the design and construction of scientific apparatus is essential reading for every scientist and student of engineering, and physical, chemical, and biological sciences. Covering the physical principles governing the operation of the mechanical, optical and electronic parts of an instrument, new sections on detectors, low-temperature measurements, high-pressure apparatus, and updated engineering specifications, as well as 400 figures and tables, have been added to this edition. Data on the properties of materials and components used by manufacturers are included. Mechanical, optical, and electronic construction techniques carried out in the lab, as well as those let out to specialized shops, are also described. Step-by-step instruction supported by many detailed figures, is given for laboratory skills such as soldering electrical components, glassblowing, brazing, and polishing.