Record Nr. UNINA9911004843503321 Autore Chabert Pascal <1969-> Titolo Physics of radio-frequency plasmas / / Pascal Chabert, Nicholas **Braithwaite** Cambridge; ; New York, : Cambridge University Press, 2011 Pubbl/distr/stampa 0-511-86173-7 **ISBN** 1-107-21696-6 1-283-00610-3 9786613006103 0-511-85666-0 0-511-86014-5 0-511-85927-9 0-511-86101-X 0-511-85840-X 0-511-97434-5 0-511-85753-5 Descrizione fisica 1 online resource (viii, 385 pages) : digital, PDF file(s) Classificazione SCI055000 Altri autori (Persone) BraithwaiteNicholas (Nicholas St. J.) Disciplina 621.044 Soggetti Low temperature plasmas Radio frequency Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Title from publisher's bibliographic system (viewed on 05 Oct 2015). Nota di bibliografia Includes bibliographical references and index. Machine generated contents note: 1. Introduction: 2. Plasma dynamics Nota di contenuto and equilibrium; 3. Bounded plasmas; 4. Radiofrequency sheaths; 5. Single frequency capacitively-coupled plasmas; 6. Multi-frequency capacitively-coupled plasmas; 7. Inductively-coupled plasmas; 8. Helicon plasmas; 9. Real plasmas; 10. Electrical measurements; Index. Sommario/riassunto Low-temperature radio frequency plasmas are essential in various sectors of advanced technology, from micro-engineering to spacecraft propulsion systems and efficient sources of light. The subject lies at the complex interfaces between physics, chemistry and engineering.

Focusing mostly on physics, this book will interest graduate students and researchers in applied physics and electrical engineering. The book

incorporates a cutting-edge perspective on RF plasmas. It also covers basic plasma physics including transport in bounded plasmas and electrical diagnostics. Its pedagogic style engages readers, helping them to develop physical arguments and mathematical analyses. Worked examples apply the theories covered to realistic scenarios, and over 100 in-text questions let readers put their newly acquired knowledge to use and gain confidence in applying physics to real laboratory situations.