Record Nr. UNINA9910809997003321 Autore **Bedeaux Dick** Titolo Optical properties of surfaces / / Dick Bedeaux, Jan Vlieger London, : Imperial College Press, c2004 Pubbl/distr/stampa **ISBN** 1-281-86649-0 9786611866495 1-86094-543-0 1-59124-996-1 Edizione [2nd ed.] Descrizione fisica 1 online resource (465 p.) Altri autori (Persone) VliegerJan Disciplina 530.4275 Soggetti Surfaces - Optical properties Thin films Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Previous ed.: 2002. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Optical Properties of Surfaces: PREFACE TO THE SECOND EDITION: PREFACE TO THE FIRST EDITION; CONTENTS; 1 INTRODUCTION; 2 EXCESS CURRENTS, CHARGE DENSITIES AND FIELDS: 3 MAXWELL'S **EQUATIONS WITH SINGULAR FIELDS; 4 REFLECTION AND** TRANSMISSION; 5 ISLAND FILMS IN THE LOW COVERAGE LIMIT; 6 SPHEROIDAL ISLAND FILMS IN THE LOW COVERAGE LIMIT: 7 ISLANDS FILMS FOR A FINITE COVERAGE: 8 FILMS OF TRUNCATED SPHERES FOR A LOW COVERAGE; 9 FILMS OF TRUNCATED SPHEROIDS IN THE LOW COVERAGE LIMIT: 10 FILMS OF TRUNCATED SPHERES OR SPHEROIDS FOR FINITE COVERAGE; 11 STRATIFIED LAYERS 12 THE WAVE EQUATION AND ITS GENERAL SOLUTION13 GENERAL LINEAR RESPONSE THEORY FOR SURFACES; 14 SURFACE ROUGHNESS; 15 REFLECTION OF A GYROTROPIC MEDIUM; REFERENCES; INDEX This invaluable book represents a substantial body of work describing Sommario/riassunto the theory of the optical properties of thin island films and rough surfaces. In both cases the feature sizes are small compared to the

wavelength of light. The approach is extremely rigorous and

theoretically very thorough. The reflection, transmission and absorption of light are described. Computer programs that provide exact solutions for theoretical properties of thin island films have recently become

available, and this makes the book of great practical use.	