Record Nr. UNINA9910450178803321 Autore Bedeaux Dick Titolo Optical properties of surfaces [[electronic resource] /] / Dick Bedeaux, Jan Vlieger Pubbl/distr/stampa London, : Imperial College Press, c2004 **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 Electronic books. 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

Sommario/riassunto This invaluable book represents a substantial body of work describing

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.