1. Record Nr. UNINA9910146232903321

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| Autore | Sernelius B (Bo) |
| Titolo | Surface modes in physics / / Bo E. Sernelius |
| Pubbl/distr/stampa | Berlin ; ; New York, : Wiley-VCH, c2001 |
| ISBN | 9786610559619<br>9781280559617<br>1280559616<br>9783527635054<br>352763505X<br>9783527603169<br>3527603166 |
| Edizione | [1st ed.] |
| Descrizione fisica | 1 online resource (370 p.) |
| Disciplina | 530.4/17 |
| Soggetti | Surfaces (Physics)<br>Electromagnetic fields |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Surface Modes in Physics; CONTENTS; Introduction; 1 Bulk modes; 1.1 Bulk modes in terms of fields; 1.2 Bulk modes in terms of potentials; 2 Model dielectric functions; 2.1 Lorentz' classical model for the dielectric function of insulators; 2.2 Drude's classical model for the dielectric function of metals; 2.3 Modelling; 2.4 Dielectric function of a plasma; 2.5 Static dielectric function for a dilute gas of permanent dipoles; 2.6 Debye rotational relaxation; 2.7 Dielectric properties of water; 2.8 Superluminal speeds; 2.8.1 Speed of light in vacuum<br>2.8.2 Einstein's special theory of relativity2.8.3 Tachyons; 2.8.4 Trivial examples; 2.8.5 EPR paradox; 2.8.6 Phase velocity versus group velocity; 2.8.7 Surpassing the sonic speed barrier; 2.8.8 Faster than the speed of light in a medium; 2.8.9 Superluminal speeds caused by changes in the vacuum; 2.8.10 Tunneling; 2.8.11 What do we mean by signals, information and message?; 2.8.12 Conclusions; 3 Zero-point energy of modes; 4 Modes at flat interfaces; 4.1 Modes at a single interface; 4.1.1 Metal-vacuum interface; 4.1.2 Semiconductor-vacuum interface; 4.2 Modes in slab geometry |

4.2.1 Metal slab in vacuum4.2.2 Semiconductor slab in vacuum; 4.2.3 Vacuum gap in a metal; 4.2.4 Vacuum gap in a semiconductor; 4.3 The Casimir effect; 4.3.1 Casimir effect at zero temperature; 4.3.2 Casimir effect at finite temperature; 4.4 Metal surfaces; 4.4.1 Surface energy of metals; 4.4.2 Optical properties of mercury; 4.4.3 Surface tension of mercury; 4.5 Quantum wells; 4.5.1 Casimir and van der Waals forces between two 2D metallic sheets; 4.5.2 Plasmon-pole approximation; 5 Forces; 5.1 Two molecules with permanent dipole moments
5.2 One ion and one molecule with permanent dipole moment5.3 Two molecules one with and one without permanent dipole moment; 5.4 Two molecules without permanent dipole moments; 5.5 Two ions; 5.6 Three or more polarizable atoms; 5.7 Interaction between macroscopic objects; 5.8 Interaction between two spheres: limiting results; 5.9 Interaction between two spheres: general results; 5.9.1 Radially varying dielectric functions; 5.10 General expression for small separations; 5.11 Cylinders and half-spaces; 5.12 Summation of pair interactions; 5.13 Derivation of the van der Waals equation of state
6 Energy and force6.1 Interaction energy at zero temperature; 6.1.1 Interaction between two polarizable atoms revisited: no retardation; 6.1.2 Interaction between two polarizable atoms revisited: retardation; 6.2 Interaction energy a t finite temperature; 6.3 Surface energy, method 1: no retardation; 6.4 Surface energy, method 1: retardation; 6.5 Surface energy, method 2: no retardation; 6.6 Surface energy, method 2: retardation; 6.7 Finite temperatures; 6.7.1 Retarded interaction energy; 6.8 Recent results for metals; 6.9 Adhesion, cohesion, and wetting; 6.9.1 Work of adhesion and cohesion
6.9.2 Wetting

Sommario/riassunto

Electromagnetic surface modes are present at all surfaces and interfaces between material of different dielectric properties. These modes have very important effects on numerous physical quantities: adhesion, capillary force, step formation and crystal growth, the Casimir effect etc. They cause surface tension and wetting and they give rise to forces which are important e.g. for the stability of colloids. This book is a useful and elegant approach to the topic, showing how the concept of electromagnetic modes can be developed as a unifying theme for a range of condensed matter physics. The

2. Record Nr. UNINA9910557537703321

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| Autore | Chapple Karen |
| Titolo | Transit-oriented displacement or community dividends? : understanding the effects of smarter growth on communities / / Karen Chapple and Anastasia Loukaitou-Sideris |
| Pubbl/distr/stampa | Cambridge, : The MIT Press, 2019<br>Cambridge : , : The MIT Press, , 2019 |
| ISBN | 9780262352918<br>0262352915<br>9780262352901<br>0262352907 |
| Descrizione fisica | 1 online resource (xi, 347 pages) : illustrations |
| Collana | Urban and industrial environments |
| Disciplina | 307.1/16 |
| Soggetti | Sustainable urban development<br>Local transit<br>Communities<br>City planning - Environmental aspects<br>Urban policy - Environmental aspects |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Introduction -- Transit-oriented development as a panacea of rationalist planning -- Gentrification and displacement as global phenomena -- Impacts on neighborhoods : measuring and understanding gentrification and displacement -- Transit, race, and neighborhood change in Los Angeles and San Francisco -- Transit-oriented displacement from the neighborhood's perspective -- Commercial gentrification and displacement -- Transit and displacement : where do the displaced move? -- Integrating displacement into regional transportation and land use models -- Safeguarding against displacement : stabilizing transit neighborhoods -- Conclusion. |
| Sommario/riassunto | An examination of the neighborhood transformation, gentrification, and displacement that accompany more compact development around |

transit. Cities and regions throughout the world are encouraging smarter growth patterns and expanding their transit systems to accommodate this growth, reduce greenhouse gas emissions, and satisfy new demands for mobility and accessibility. Yet despite a burgeoning literature and various policy interventions in recent decades, we still understand little about what happens to neighborhoods and residents with the development of transit systems and the trend toward more compact cities. Research has failed to determine why some neighborhoods change both physically and socially while others do not, and how race and class shape change in the twenty-first-century context of growing inequality. Drawing on novel methodological approaches, this book sheds new light on the question of who benefits and who loses from more compact development around new transit stations. Building on data at multiple levels, it connects quantitative analysis on regional patterns with qualitative research through interviews, field observations, and photographic documentation in twelve different California neighborhoods. From the local to the regional to the global, Chapple and Loukaitou-Sideris examine the phenomena of neighborhood transformation, gentrification, and displacement not only through an empirical lens but also from theoretical and historical perspectives. Growing out of an in-depth research process that involved close collaboration with dozens of community groups, the book aims to respond to the needs of both advocates and policymakers for ideas that work in the trenches.

3. Record Nr. UNINA9910595080503321

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| Autore | Nunes Fernando M |
| Titolo | Wine Sensory Faults : Origin, Prevention and Removal |
| Pubbl/distr/stampa | Basel, 2022 |
| Descrizione fisica | 1 online resource (186 p.) |
| Soggetti | Industrial chemistry and chemical engineering<br>Technology: general issues |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Sommario/riassunto | Wine is highly appreciated for its distinctive sensory characteristics, including its colour, aroma, and taste. However, unwanted microbiological activity, unbalanced concentrations of certain compounds resulting from unbalanced grape chemical compositions, and inadequate winemaking practices and storage conditions can result in sensory defects that significantly decrease wine quality. Although preventing wine defects is the best strategy, they are sometimes difficult to avoid. Therefore, when present, several fining agents or additives and technologies are available or being developed with different performances regarding their impact on wine quality. Wine stabilisation refers to removal and prevention strategies and treatments that limit visual, olfactory, gustatory, or tactile wine defects, as well as increase wine safety and stability through fining and the application of different operations carried out in wineries (filtration, pasteurisation, electrodialysis, and cold stabilisation) and the use of emerging technologies (electron-beam irradiation, high hydrostatic pressure, pulsed electric fields, ultrasound, pulsed light). Future trends in this field involve using more sustainable and environmentally friendly fining agents and technologies and developing treatments with better performance and specificity. |