1. Record Nr. UNINA9910459981203321

Titolo	Advancement of materials and nanotechnology III : selected, peer reviewed papers from the 3 rd International Conference on the Advancement of Materials and Nanotechnology 2013 (ICAMN III 2013), November 19-21, 2013, Penang / / edited by Kuan Yew Cheong, [and five others]
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Collana	Advanced Materials Research, , 1662-8985 ; ; Volume 1024
Disciplina	620.5
Soggetti	Nanostructured materials Nanotechnology Materials Electronic books.
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 at the end of each chapters and indexes.
Nota di contenuto	Advancement of Materials and Nanotechnology III; Preface and Committees; Table of Contents; Chapter 1: Nanomaterial Research and Application; Design and Synthesis Silica-Polyelectrolyte-Iron Oxide Nanocomposite with Magnetic-Catalytic Bifunctionalities for Dye Removal; Effect of Calcination Temperature on the Morphological and Phase Structure of Hydrothermally Synthesized Copper Ion Doped TiO2 Nanotubes; Nanoclay for Micropollutant Removal in Wastewater-Effective Alternative?; S-Parameters of Bismuth Iron Garnet (BIG) Filled Polyvinylidene Fluoride Composite Using Rectangular Waveguide Method Controlled Growth of ZnO Nanoparticles with Different Morphologies Using Sol-Gel TechniqueImproving the Production of Self-Assembled ZnS:Mn Nanocrystals through the Modification of Sol Gel - Spin Coating Approaches; Fabrication of Anodic Alumina Templates on Ti/Si Substrate and Preparation of Cu Nanorods by Electrochemical Process; P-Incorporated TiO2 Nanotube Arrays by Wet Impregnation Method for

Efficient Photocatalytic Activity; Carbon Dioxide Capture at Various Temperatures Using Ca(OH)2 Sorbent Fabricated by Sol-Gel Route in Ethanol Media
Fe-TiO2 Nanoparticles by Hydrothermal Treatment with Photocatalytic Activity EnhancementFormation of Platinum Nanodendrites Embedded Organic Insulator for Memory Application; Simulation and Fabrication of Silicon Field Emission Cathodes for Cold Electron Sources; Synthesis and Characterization of Zn-Al Layered Double Hydroxide (LDH) Nanocomposite Intercalated with Sodium Dodecyl Sulfate (SDS); The Effect of Zinc Oxide and Aluminum Oxide Nanoparticles on Interfacial Tension and Viscosity of Nanofluids for Enhanced Oil Recovery
Effect of Metal Catalysts Type and Annealing Time on the Growth of Zinc Oxide Nanostructures by Thermal Vapor Deposition MethodEffect of Oxygen Flow Rate on the Memristive Behavior of Reactively Sputtered TiO2 Thin Films; Synthesis of CdSe Nanoparticles: Control of Reaction Temperature; The Effect of Hydrothermal Reaction Time on Formation of AuNPs by Sacrificial Templated Growth Hydrothermal Approach; Characterization of ITO/Ag and ITO/Ni Bi-Layer Transparent Conductive Electrodes; Fabrication of Gold Nanoparticles on Multiwalled Carbon Nanotubes Nanohybrids
Microwave Synthesis of ZnO Nanoparticles for Enhanced Oil RecoverySynthesizing Vertically Aligned Zinc Oxide Nanowires on Borosilicate Glass Using Vapor Trapping Approach; Preparation of WO3 Nanorods by Seeded Growth Hydrothermal Reaction; Formation and Characterization of TiO2 Scattering Layer Deposited by Spray Pyrolysis for DSSC; Effect of Applied Voltage on the Formation of Self-Organized Iron Oxide Nanoporous Film in Organic Electrolyte via Anodic Oxidation Process and their Photocurrent Performance
Electrolyte Influence on the Morphologies of Anodic ZrO2 Nanotube Arrays Formed by Anodization

Sommario/riassunto

Collection of selected, peer reviewed papers from the 3rd International Conference on the Advancement of Materials and Nanotechnology 2013 (ICAMN III 2013), November 19-21, 2013, Penang. The 94 papers are grouped as follows: Chapter 1: Nanomaterial Research and Application, Chapter 2: Polymer Materials and Composites, Chapter 3: Functional and Structural Materials, Material Processing Technologies, Chapter 4: Micro/Nano Materials for Bio/Medical Application, Chapter 5: Materials and Technologies for Electric and Electronic Application Temporary description, more details to follow.

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Autore	Wolff Ingo
Titolo	Coplanar microwave integrated circuits [[electronic resource] /] / Ingo Wolff
Pubbl/distr/stampa	Hoboken, N.J., : Wiley-Interscience, c2006
ISBN	1-280-50792-6 9786610507924 0-470-04088-2 0-470-04087-4
Descrizione fisica	1 online resource (559 p.)
Disciplina	621.38132
Soggetti	Microwave integrated circuits
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	COPLANAR MICROWAVE INTEGRATED CIRCUITS; CONTENTS; Preface; 1 Introduction; References; 2 Transmission Properties of Coplanar Waveguides; 2.1 Rigorous, Full-Wave Analysis of Transmission Properties; 2.1.1 The Coplanar Waveguide with a Single Center Strip and Finite Ground-Plane Width; 2.1.2 The Coplanar Waveguide with a Single Center Strip and Infinite Ground-Plane Width; 2.1.3 Coupled Coplanar Waveguides; 2.1.3.1 Scattering Matrix of Coupled Coplanar Waveguides; 2.1.3.2 Coupled Coplanar Waveguides and Microstrip Lines-A Comparison 2.2 Quasi-Static Analysis of Coplanar Waveguides Using the Finite Difference Method2.2.1 Introduction; 2.2.2 The Finite Difference Method as Applied to the Analysis of Coplanar Waveguide Structures; 2.2.3 The Solution of Laplace's Equation for Planar and Coplanar Line Structures Using the Finite Difference Method; 2.2.4 Application of the Quasi-Static Techniques to the Analysis of Coplanar Waveguides; 2.2.5 Characteristic Parameters of Coplanar Waveguides; 2.2.6 The Influence of the Metalization Thickness on the Line Parameters 2.2.7 The Influence of the Ground Strip Width on the Line Parameters2. 2.8 The Influence of the Shielding on the Line Parameters; 2.2.9 Special Forms of Coplanar Waveguides; 2.2.10 Coplanar-like Waveguides; 2.2.11 Coupled Coplanar Waveguide Structures; 2.2.11.1 Analysis of

the Characteristic Parameter Matrices; 2.2.11.2 Determination of the Scattering Matrix of Coupled Coplanar Waveguides; 2.3 Closed Formula Static Analysis of Coplanar Waveguide Properties; 2.3.1 Analysis of a Generalized Coplanar Waveguide with Supporting Substrate Layers; 2.3.1.1 Structure SCPW1; 2.3.1.2 Structure SCPW2
2.3.1.3 Structure SCPW32.3.1.4 Numerical Results; 2.3.2 Static Formulas for Calculating the Parameters of General Broadside-Coupled Coplanar Waveguides; 2.3.2.1 Analytical Formulas and Results for the General Broadside-Coupled Coplanar Waveguide; 2.3.2.2 Analysis of an Asymmetric Supported BSC-CPW; 2.3.2.3 Application of the GBSC-CPW as Single CPW; 2.3.2.4 Criteria for the Coplanar Behavior of the Structure; Bibliography and References; 3 Coplanar Waveguide Discontinuities; 3.1 The Three-Dimensional Finite Difference Analysis; 3.2 Computation of the Electric Field Strength
3.3 Computation of the Magnetic Field Strength3.3.1 Convergence and Error Discussion for the Analysis Technique; 3.4 Coplanar Waveguide Discontinuities; 3.4.1 Modeling the Discontinuities; 3.4.2 Extraction of the Model Parameters; 3.5 Description of Coplanar Waveguide Discontinuities; 3.5.1 The Coplanar Open End; 3.5.2 The Coplanar Waveguide Short-Circuited End; 3.5.3 The Gap in a Coplanar Waveguide; 3.5.4 The Coplanar Waveguide Step; 3.5.5 Air Bridges in Coplanar Waveguides; 3.5.6 The Coplanar Waveguide Bend; 3.5.7 The Coplanar Waveguide T-Junction
3.5.7.1 Analysis of the Odd-Mode Excitation

Sommario/riassunto

The tools and techniques to fully leverage coplanar technologyCoplanar Microwave Integrated Circuits sets forth the theoretical underpinnings of coplanar waveguides and thoroughly examines the various coplanar components such as discontinuities, lumped elements, resonators, couplers, and filters, which are essential for microwave integrated circuit design. Based on the results of his own research findings, the author effectively demonstrates the many advantages of coplanar waveguide technology for modern circuit design.Following a brief introductory chapter, the text thoroughly