

Guide for Authors

Concerning the Use of Keywords for Indexing in Synthetic Metals

Given below is a listing of keywords for the Subject Index used by Synthetic Metals. The Subject Index is divided into six classes: Theoretical Methods, Models and Techniques; Synthesis and Processing; Characterization of Materials and Structures; Phenomena; Materials; Applications. Please indicate below your abstract between one and six keywords from as many of the six classes as appropriate to describe the contents of your manuscript.

The keywords will be used as labels for use in electronic navigation tools. Thus, careful attention to giving a correct, useful description of your work will generate more thorough use of your paper once it is published.

Subject Index

Theoretical methods, models and techniques

Quantum chemical methods

- Ab initio quantum chemical methods and calculations
- Semi-empirical models and model calculations

Calculations of structures and interactions

- Ising models
- Jellium models
- Greens function method
- Density functional calculations
- Electron density, excitation spectra calculations
- Electron-solid interactions, scattering, diffraction
- Atom-solid interactions, scattering, diffraction
- Atomistic dynamics
- Molecular dynamics, lattice dynamics
- Computer simulations
- Many-body and quasiparticle theories
- Equilibrium thermodynamics and statistical mechanics
- Non-equilibrium thermodynamics and statistical mechanics
- Models of surface and interface chemistry and physics
- Models of non-linear phenomena
- Local density approximations

Synthesis and processing

Chemical synthesis

- Heterocycle synthesis
- Coupling reactions
- Transition-metal-catalysed reactions

Electrochemical sample preparation methods

- Electrochemical polymerization
- Electrocrystallization
- Electrochemical doping

Vacuum techniques

- Evaporation and sublimation
- Epitaxy
- Chemical vapour deposition
- Etching
- Ion implantation
- Compound formation
- Sputtering

Material processing

- Melt processing
- Solution processing
- Spin wasting
- Tensile drawing
- Single-crystal growth
- Gel processing
- Sol-gel methods

High-temperature methods for material preparation

- Surface preparation using chemical reactions
- Manipulation of surface structure and morphology
- Interface preparation
- Control of interface structure and morphology

Self-organization

- Langmuir-Blodgett techniques
- Self-assembly using surface chemistry
- Miscelles and solution self-assembly
- Self-organization in macromolecules

Characterization of materials and structures

Characterization of material properties

- Elemental analysis
- Infrared and Raman spectroscopy
- Nuclear magnetic resonance spectroscopy
- Scanning electron microscopy
- Low-energy electron microscopy
- Scanning transmission electron microscopy
- Ballistic electron emission microscopy
- Reflection electron microscopy
- Atomic force microscopy, scanning tunnelling microscopy
- Electrochemical methods
- In situ electrochemical spectroscopy
- Auger electron spectroscopy
- Atom-solid scattering and diffraction
- Electron emission measurements
- Electron energy loss spectroscopy
- Electron-solid diffraction, Auger, LEED, RHEED, etc.
- Elastic and inelastic electron-solid scattering and transmission
- Electron spin resonance
- Electron-nuclear-double resonance
- Optically detected magnetic resonance
- Ellipsometry
- Field emission spectroscopy
- Inverse photoemission spectroscopy
- Ion scattering spectroscopy
- Magnetic measurements
- Laser spectroscopy
- Elastic-inelastic molecule-solid scattering and diffraction
- Mossbauer spectroscopy
- Neutron scattering and diffraction
- Non-linear optical methods
- Nuclear reaction analysis
- Photoelectron spectroscopy
- Optical absorption and emission spectroscopy
 - Stimulated luminescence
 - Chemiluminescence
 - Electroluminescence
 - Phololuminescence
 - UV-Vis-NIR absorption

- Photothermal deflection spectroscopy
- Multiphoton absorption spectroscopy
- X-ray absorption spectroscopy
- Position spectroscopy
- Reflection spectroscopy
- Mass spectroscopy
- X-ray emission, diffraction and scattering
- Time-resolved fast spectroscopy
- Photoinduced absorption spectroscopy
- Electroabsorption
- Photoconductivity
- Transport measurements, conductivity, Hall effect, magnetotransport
- Thermopower, specific heat, heat conduction

Physical state and structure

Surfaces

- Amorphous surfaces
- Dendritic and/or fractile surfaces
- Glass surfaces
- Liquid surfaces
- Polycrystalline surfaces
- Single-crystal surfaces
- Surface defects
- Whiskers

Interfaces

- Crystalline/amorphous interfaces
- Crystalline/glass interfaces
- Solid/liquid interfaces
- Solid/gas interfaces
- Liquid/gas interfaces
- Single-crystal epitaxy
- Grain boundaries
- Organic/inorganic interfaces
- Polymer/polymer interfaces
- Bi-continuous polymer network interfaces
- Phase-segregated composite interfaces

Heterostructures

- Heterojunctions
- Quantum wells
- Superlattices

Thin-film structures

- Amorphous thin films
- Polycrystalline thin films
- Single crystalline thin films
- Coatings

Electrical optical and magnetic behaviour

- Insulating films
- Insulating surfaces
- Magnetic films
- Magnetic surfaces
- Metallic films
- Metallic surfaces
- Semiconducting films
- Semiconducting surfaces

- Superconducting films
- Superconducting surfaces
- Magnetic interfaces
- Metal/electrolyte interfaces
- Metal/insulator interfaces
- Metal/metal interfaces
- Metal/semiconductor interfaces
- Schottky barrier
- Semiconductor/electrolyte interfaces
- Semiconductor/insulator interfaces
- Semiconductor/semiconductor interfaces
- Semiconductor/superconductor interfaces
- Other interfaces
- Metal-metal magnetic heterostructures
- Metal-metal non-magnetic heterostructures
- Metal-oxide-semiconductor (MOS) structures
- Metal-semiconductor magnetic heterostructures
- Metal-semiconductor non-magnetic heterostructures
- Semiconductor-semiconductor heterostructures
- Superconductor-semiconductor heterostructures
- Heterostructures with non-linear optical response
- Other heterostructures

Phenomena

Phase transitions

- Order-disorder phase transitions
- Metal-insulator phase transitions
- Structural phase transitions
- Magnetic phase transitions
- Glass transitions
- Liquid crystalline phase transitions
- Solid-liquid phase transition
- Melting, evaporation, sublimation, etc
- Superconducting phase transitions
- Other phase transitions

Materials

- Polyacetylene and derivatives
- Polyaniline and derivatives
- Polythiophene and derivatives
- Polypyrrole and derivatives
- Poly(phenylene vinylene) and derivatives
- Low-bandgap conjugated polymers
- Special-purpose functionalized conjugated polymers (e.g. enzyme immobilizers)
- Other conjugated and/or conducting polymers
- Organic conductors based on radical cation and/or anion salts
- Organic superconductors
- Fullerenes and derivatives
- Organic semiconductors based on conjugated molecules (not polymers) (anthracenes, perylenes, etc.)
- Graphite and related compounds

Applications

Opto-electronic devices

- Detectors
- Light sources
- Electro-optical modulators
- Acousto-optical modulators
- All-optical modulators
- Switches
- Lasers
- Waveguides
- Transmission lines, fibres
- Frequency conversion devices
- Amplifiers
- Optical-limiting devices
- Components, polarizers, windows. Etc
- Couplers
- Other

Energy conversion devices

- Batteries
- Solar cells
- Fuel cells
- Fuel storage devices
- Other

Magnetic devices

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Mechanical tools and devices

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