



JOURNAL OF ALLOYS AND COMPOUNDS

An Interdisciplinary Journal of Materials Science and Solid-State Chemistry and Physics

AUTHOR INFORMATION PACK

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A. Types of Material

actinide alloys and compounds
amorphous materials
ceramics
clusters
coating materials
composite materials
data storage materials
disordered systems
electrode materials
energy storage materials
ferroelectrics
fuel cells
fullerenes
half metals
heterojunctions
high-temperature alloys
high-Tc superconductors
hydrogen absorbing materials
inorganic materials
insulators
intermetallics
interstitial alloys
liquid crystals
magnetic films and multilayers
magnetically ordered materials
metal hydrides
metallic glasses

- metal matrix composites
- metals and alloys
- nanostructured materials
- nitride materials
- nuclear reactor materials
- optical materials
- oxide materials
- permanent magnets
- phosphors
- polymers, elastomers, and plastics
- quantum wells
- quasicrystals
- rare earth alloys and compounds
- semiconductors
- spin glasses
- superconductors
- surfaces and interfaces
- thin films
- transition metal alloys and compounds
- thermoelectric materials

B. Preparation and Processing

- amorphisation
- chemical synthesis
- crystal growth
- gas-solid reactions
- laser processing
- liquid-solid reactions
- precipitation
- powder metallurgy
- mechanical alloying
- mechanochemical processing
- nanofabrications
- rapid-solidification, quenching
- sintering
- sol-gel processes
- solid state reactions
- vapor deposition

C. Phenomena

- atomic scale structure
- acoustic properties
- anisotropy
- anharmonicity
- catalysis
- composition fluctuations
- crystal structure
- corrosion
- crystal and ligand fields
- crystal binding and equation of state
- cyclotron resonance
- dielectric response
- diffusion
- dislocations and disclinations
- domain structure
- elasticity
- electrical transport
- electrochemical reactions
- electromotive force, EMF
- electron-electron interactions
- electron-phonon interactions

electronic band structure
electronic properties
enthalpy
entropy
exchange and superexchange
fractional quantum Hall effect
flux pinning and creep
galvanomagnetic effects
grain boundaries
heat capacity
heat conduction
heavy fermions
hyperfine interactions
ionic conduction
impurities in semiconductors
kondo effect
kinetics
magnetisation
magnetocaloric
magnetoresistance
magnetostriction
magneto-volume effects
mechanical properties
microstructure
noise
optical properties
order-disorder effects
oxidation
phase diagrams
phase transitions
phonons
photoconductivity and photovoltaics
piezoelectricity, electrostriction
preferential site ordering
point defects
quantum Hall effect
quantum localization
radiation effects
recombination and trapping
shape memory
spin dynamics
spin-orbit effects
thermal expansion
thermodynamic properties
thermoelectric
thermochemistry
tunnelling
vacancy formation
valence fluctuations

D. Experimental and Theoretical Methods

atomic force microscopy, AFM
atom, molecule, and ion impact
calorimetry
computer simulations
elastic light scattering
electrochemical impedance spectroscopy
electron emission spectroscopies
electron energy loss spectroscopy
electron paramagnetic resonance
EXAFS, NEXAFS, SEXAFS

high-pressure
high magnetic fields
inelastic light scattering
inelastic neutron scattering
light absorption and reflection
luminescence
magnetic measurements
Mössbauer spectroscopy
metallography
molecular dynamics simulations
muon spectroscopies
neutron diffraction
nonlinear optics
nuclear resonances
optical spectroscopy
perturbed angular correlations, PAC
photoelectron spectroscopies
positron spectroscopies
Rutherford backscattering, RBS
scanning electron microscopy, SEM
scanning tunnelling microscopy, STM
strain, high pressure
surface electron diffraction (LEED, RHEED)
synchrotron radiation
thermal analysis
thermodynamic modeling
time-resolved optical spectroscopies
transmission electron microscopy, TEM
X-ray diffraction
X-ray and gamma-ray spectroscopies
Ultrasonics

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