# **KEYWORDS FOR JOURNAL OF ALLOYS AND COMPOUNDS**

Authors should select a maximum of five keywords. Each keyword should be accompanied by the capital letter denoting the category for which the keyword has been selected.

#### A. Type of Materials

Actinide alloys and compounds

Amorphous materials

Ceramics

Clusters

Coating materials Composite materials Data storage materials

Dental alloys

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

Vapour 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

### (CONTINUATION OF C)

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, electrostrition 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