
Japanese Journal of Applied Physics

Classification Scheme

Semiconductors

- A01 Silicon
- A02 III-V semiconductors
- A03 Amorphous and polycrystalline semiconductors
- A04 Other semiconductors
- A05 Heterostructures, superlattices, and related structures
- A06 Metal semiconductor contacts (incl. ohmic contacts)
- A07 Devices
- A08 Device physics
- A10 Semiconductor surfaces and interfaces
- A11 VLSI technologies (process, materials and fabrication technologies)
- A12 VLSI circuits and systems (those based on new physical phenomena or new device structures)
- A13 Nitride
- A14 Magnetic semiconductors
- A15 Spins and spin electronics

Superconductors

- B01 Oxide superconductors : syntheses, structures and characterization
- B02 Superconductors : films, wires and junctions (incl. superconducting devices)
- B03 Metallic and organic superconductors (incl. general aspects of superconductivity)

Magnetism

- C01 Magnetic materials and properties
- C02 Magnetic thin films and multilayers (incl. nano structures and patterned structures)
- C03 Magnetic resonances, relaxations, and the Mossbauer effect
- C04 Magnetic devices (incl. recording)

Optics and Quantum Electronics

- D01 Fundamental optics
- D02 Nonlinear optics
- D03 Quantum optics
- D04 Diode lasers (incl. LEDs)
- D05 Other lasers (incl. gas lasers, solid lasers, dye lasers etc.)
- D06 Generation, modulation, and detection of light (incl. ultra-fast optical techniques)
- D07 Optical materials and components
- D08 Optoelectronic devices and integration
- D09 Information optics (incl. optical communication, interconnection, memory, information processing, and computing)
- D10 Laser applications (excl. those specified elsewhere)
- D11 Vision, display, and image processing (incl. vision optics and robotic vision)

Optical Properties of Condensed Matter

- E01 Luminescence and Raman scattering
- E02 Photoexcitation effects (incl. photoconductivity, photovoltaic effects and photoemission)
- E03 Optical properties (incl. electrooptic, magneto-optic and acousto-optic effects)

Electrical Properties of Condensed Matter

- F01 Electronic structures
- F02 Transport properties (incl. high field phenomena)
- F03 Effects of impurities and defects (incl. trapping, recombination, and generation)
- F04 Dielectric and ferroelectric properties (incl. pyroelectric and piezoelectric phenomena)

Structure and Mechanical and Thermal Properties of Condensed Matter

- G01 Liquids and liquid crystals
- G02 Glasses, amorphous material, and polymers (excl. amorphous semiconductors)
- G03 Crystalline and ceramic materials (excl. those specified elsewhere)
- G04 Structure analysis
- G05 Bulk and epitaxial crystal growth
- G06 Defects in crystals
- G07 Mechanical, acoustical, and rheological properties
- G08 Lattice dynamics
- G09 Equations of state, phase equilibria, and phase transitions
- G10 Thermal and transport properties
- G11 Low temperature physics (incl. quantum liquids and solids; excl. superconductivity)

Surfaces, Interfaces, and Films

- H01 Fabrication of films and layered structures
- H02 Surface and interface reaction (incl. modification)
- H03 Structure and properties of surfaces and interfaces
- H04 Structure and properties of films
- H05 Quantized properties of surfaces, films, wires, and fine particles
- H06 Electron and ion emission (incl. thermionic, photo, secondary, and field emission)

H07 Scanning probe microscopy

Nuclear Science, Plasmas, and Electric Discharges

- P01 Nuclear physics and applications (incl. radioactivity, reactions, and scattering)
- P02 Radiation effects and passage through matter
- P03 Nuclear engineering and nuclear power studies
- P04 Experimental methods and instrumentation for elementary particle and nuclear physics
- P05 Electric gas discharges
- P06 Plasma production and properties
- P07 Plasma devices and applications
- P08 Plasma processing
- P09 Plasma diagnostic techniques and instrumentation

Atoms, Molecules, and Chemical Physics

- J01 Atoms and molecules (incl. spectroscopy, collisions)
- J02 Reaction mechanism, kinetics and theoretical chemistry (incl. quantum and computational chemistry)
- J03 Electro-, photo- and plasma chemistry, and its applications
- J04 Chemical and process engineering (incl. mass transfer and process design)
- J05 Physical and chemical analysis
- J06 Organic materials and devices

Instrumentation, Measurement, and Fabrication Technology

- K01 Mechanical and acoustical measurement and instrumentation (incl. precision apparatus)
- K02 Optical measurement and instrumentation
- K03 Electromagnetic measurement and instrumentation
- K04 Electric and magnetic measurement and instrumentation
- K05 Thermal instruments and techniques (incl. cryogenics, low and high temperature technology, pyrometry, and thermal analysis)
- K06 Vacuum and high pressure production and technology
- K07 X-ray, γ -ray, and neutron technology
- K08 Electron beams and their applications
- K09 Particle beam production and applications (incl. atoms, molecules, and ions)
- K10 Device fabrication technology (incl. thermal and chemical treatment, and microfabrication)
- K11 Others

General Physics

- R01 Mathematical methods
- R02 Classical and quantum mechanics
- R03 Statistical physics and thermodynamics (incl. thermophysics)
- R04 Electromagnetism
- R05 Fluid dynamics
- R06 Measurement science (incl. metrology and measurement of basic quantities)
- R07 Nonlinear phenomena and dynamics
- R08 Others

Applied Bioscience

- N01 Biophysics, medical physics, and biomedical engineering
- N02 Biosensing and devices
- N03 Bioimaging and engineering
- N04 Brain measurement, imaging, and instrumentation
- N05 Bio-inspired integrated circuits and systems
- N06 Neural networks and their hardware implementation
- N07 Bioinformatics engineering

Nano Science and Technologies

- T01 Nano-particles, quantum dots, and supramolecules
- T02 Nano-wires, quantum wires, and nanotubes
- T03 Nano-films, stacks, and other nano materials
- T04 Nano structure chemistry, processing and fabrication
- T05 Nano-electronics and related devices
- T06 Nano-photonics, nano-optics, and related devices
- T07 Magnetic, structural, and other properties of nanostructures
- T08 Biological aspects of nano-structures
- T09 Nano-scale imaging, measurement, and manipulation technology

Cross-Disciplinary Areas

- M01 Space and earth science and technology
- M02 Environmental engineering
- M04 Information science and technology
- M05 Energy technology
- M06 Others
- M07 Quantum computing