PACS 2010 Alphabetical Index

PACS codes from the Acoustics Appendix or the Geophysics Appendix are indicated by an asterisk (*).

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A
Aberrations, 42.15.Fr
Ab initio calculations (electronic structure of atoms and molecules), 31.15.A-  
Ablation  
film deposition, 81.15.Fg  
laser impact on surfaces, 79.20.Eb  
in plasmas, 52.38.Ph
Abrasion  
materials, 81.40.Pq  
mechanics, 46.55.+d
Absorption  
acoustical  
of electromagnetic radiation  
of laser light in plasmas, 52.38.Dx  
multiphoton, by surfaces, 79.20.Ws  
nucleon, 28.20.Fc  
optical, 42.25.Bs  
of particles in plasmas, 52.25.Tx  
of photons by nuclei, 25.20.Dc
Absorption coefficients, optical, 78.20.Ci
Absorption edges, x-ray, 78.70.Dm
Absorption spectra  
of atoms, 32.30.-r  
of biomolecules, 87.15.M-  
of clusters, 36.40.Mr  
of excitons, 71.35.Cc  
of macro- and polymer molecules, 36.20.Kd  
of molecules, 33.20.-t  
of solids and liquids, 78.40.-q
Absorption spectroscopy  
in biophysics, 87.64.K-  
chemical analysis, 82.80.Dx  
instrumentation, 07.57.Ty, 07.60.Rd
Abstraction reactions, 82.30.Hk
Accelerated beams, in plasmas, 52.59.Bi, 52.59.Fn  
Accelerated plasmas, 52.59.Dk
Acceleration  
laser-driven, 41.75.Jv  
measurement of, 06.30.Gv  
of particles in interplanetary space, 96.50.Pw
Accelerators, 29.20.-c  
cyclic, 29.20.D-  
electrostatic, 29.20.Ba  
linear, 29.20.Ej  
in radiation therapy, 87.56.bd
Accidents (nuclear reactors), 28.41.Te
Accretion and accretion disks  
galactic, 98.62.Mw  
Milky Way, 98.35.Nq  
stellar, 97.10.Gz
Acids (bioproduct from biomass), 88.20.rm
Acoustical holoeraphy, *43.35.Sx, *43.60.Sx
Acoustical instruments and techniques, 07.64.+z, *43.58.-c, 43.58.+z
Acoustical properties  
gases, 51.40.+p  
liquids, 62.60.+v  
rocks and minerals, 91.60.Lj  
solids, 62.65.+k  
of solid surfaces and interfaces, 68.35.Iv  
superconductors, 74.25.Ld  
thin films, *43.35.Ns, 68.60 Bs  
Acoustic array systems, *43.60.Fg  
Acoustic emission, *43.40.Le  
Acoustic force microscopy, 68.37.Tj  
Acoustic impedance, *43.20.Rz  
arachnological acoustics, *43.55.Ev  
of ground, snow, and ice, *43.28.En  
Acoustics  
arachnological, *43.55.-n, 43.55.+p  
ASA Web page, *43.05.Gv  
atmospheric, *43.28.-g, 43.28.+h  
biological, *43.80.-n, 43.80.+p  
forensic, *43.72.Uv  
linear, *43.20.-f, 43.20.+g  
nonlinear, *43.25.-x, 43.25.+y  
physiological, *43.64.-q, 43.64.+r  
psychological, *43.66.-x, 43.66.+y  
ray, *43.20.DK  
structural, *43.40.-r, 43.40.+s  
underwater, *43.30.-k, 43.30.+m  
Acoustic sensing, *43.60.Vx
Acoustic signal coding, *43.60.Ek
Acoustic signal processing, *43.60.-c, 43.60.+d
Acoustics Research Letters Online (ARLO), *43.05.Gv
Acoustic streaming, *43.25.Nm
Acousto-optical devices, 42.79.Jq
Acousto-optical effects, *43.35.Sx, 78.20.hb
Activation analysis, radiochemical, 82.80.Jp
Adaptation, visual  
color, 42.66.Ne  
light, 42.66.Lc
Adaptive acoustical systems, *43.60.Mn
Adaptive optical systems  
anatomy, 95.75.Qr  
atmospheric optics, 42.68.Wt
Addenda, 99.10.Qr
Adhesion  
cellular, 87.17.Rt  
interfacial flow, 83.50.Lh  
mechanical contacts (structural mechanics), 46.55.+d  
of polymers on surfaces, 82.35.Gh  
at solid surfaces and interfaces, 68.35.Np
Adhesives (bioproduct from biomass), 88.20.rp
Admittance measurement, 84.37.+q
Adsorbates  
assemblies of, 68.43.Hn  
diffusion of, 68.43.Jk  
electron states, 73.20.Hb  
femtochemistry of, 82.53.St  
photoelectron spectra, 79.60.Dp  
statistical mechanics of, 68.43.De  
structure and reactions of, 68.43.Bc, 68.43.Fg  
vibrations of, 68.43.Pq
Adsorption  
on fluid interfaces, 68.03.-g  
kinetcs of, 68.43.Mn  
at solid surfaces, 68.43.-h
Advanced vehicles  
alternative fuels for, 88.85.M-  
electric vehicles (EVs), 88.85.Hj  
fuel cell vehicles (FCVs), 88.85.Cd  
fueling stations for, 88.85.Pq  
plug-in hybrid vehicles (HEVs), 88.85.Fg  
vehicle energy storage, 88.85.J-  
Aeroacoustics, *43.28.-g, 43.28.+h
Aerodynamics, 47.85.Gj
Aeroelasticity, 46.40.Jj
Aerogels, reactions in, 82.33.La
Biophysical techniques, 87.80.-y
biochemical separation processes, 87.80.Qk
electrochemical techniques, 87.80.Kc
ESR/EPR techniques, 87.80.Lg
genomic techniques, 87.80.St
magnetic resonance techniques, 87.80.Lg
mechanical and micromechanical techniques, 87.80.Ek
Proteomic techniques, 87.80.Un
spectroscopies in, 87.80.Dj
Biopolymers, 82.35.Pq, 87.15.rp
Biopropulsion (in water and air), 47.63.M-
Bioremediation, *91.62.Jf
Biosensors
in smart prosthetics, 87.85.fk
Biosonic generation, *43.80.Ka
Biosphere (chemical composition), *91.67.gj
Biotechnology
genetic engineering, 87.85.md
genomics techniques in, 87.80.St, 87.85.mg
proteomics techniques in, 87.80.Un, 87.85.mk
Biothermics, 87.19.Pp
Bipolarons
electronic structure of solids, 71.38.Mx
nonconventional mechanisms in superconductivity, 74.20.Mn
Bipolar outflows
external galaxies, 98.58.Fd
Milky Way, 98.38.Fs
pre-main-sequence objects, 97.21.+a
Bipolar transistors, 85.30.Pq
Birefringence
in bulk materials and thin films, 78.20.Fm
in optical fibers, 42.81.Gs
in wave optics, 42.25.Lc
Bistability, optical, 42.65.Pc
Blackbody radiation, 44.40.+a
Black holes
black-hole binaries, 04.25.dg
classical, 04.70.Bw
evaporation of, 04.70.Dy
in external galaxies, 98.62.Js
higher-dimensional, 04.50.Gh
in Milky Way, 98.35.Jk
numerical relativistic studies of, 04.25.dg
in stellar evolution, 97.60.Lf
Black strings (general relativity), 04.50.Gh
Blast waves, *43.28.Mw
Blazars, 98.54.Cm
Blood
blood-brain barrier, 87.19.um
flow imaging by MRI, 87.61.Np
flow in cardiovascular system, 47.63.Cb, 87.19.ug, 87.19.uj
hemodynamics, 87.19.U-
rheology of, 83.80.Lz, 87.19.gh, 87.85.gf
Blue phases (liquid crystals), 61.30.Mp
Blue stars, blue stragglers, 97.20.Rp
Body fluids
transport of, 87.19.gh
Body movements, physics of, 87.19.rs, 87.19.ru
Body waves (seismology), 91.30.Cd
Boiling, 64.70.fh
Bok globules, 97.21.+a
Bolometers
infrared detectors in astronomy, 95.55.Rg
instruments, 07.57.Kp
Bond angles and bond lengths, 33.15.Dj, 61.50.Lt
Bonds, dangling, 61.43.-j
Bond strength, 33.15.Fm
Bone densitometry, 87.63.St
Book reviews, 01.30.Vv
Books of general interest to physics teachers, 01.30.Os
Borides
dielectric materials, 77.84.Bw
refractories, 81.05.Je
Born-Oppenheimer approximation, 31.30.-i
Borocarburides, superconductivity of, 74.70.Dd
Boron nanotubes
structure of, 61.48.De
Bose-Einstein condensates, 67.85.Hj, 67.85.Jk
Bose-Einstein condensation
dynamic properties, 03.75.Kk
entanglement and decoherence, 03.75.Gd
multicomponent and spinor condensates, 03.75.Mn
quantum optics, 42.50.Gy
solitons, 03.75.Lm
static properties, 03.75.Hh
tunneling, 03.75.Lm
vortices in, 03.75.Lm
Bose-Einstein statistics, 05.30.-d
Boson degeneracy
in quantum fluids, 67.10.Ba
Bosons
gauge, 14.70.-e
interacting boson model, 21.60.Fw
intermediate, decays of, 14.38.+b
Nambu-Goldstone, 14.80.Va
Boson systems, 05.30.Jp
Bottom baryons, 14.20.Mr
Bottom mesons
hadronic decays, 13.25.Hw
leptonic decays, 13.20.He
properties of, 14.40.Nd
Bottom quarks, 14.65.Fy
Boundary layer
laminar flow, 47.15.Cb
Boundary layers
benthic (oceanography), 92.10.Oc, 92.20.Iy
flow control, 47.85.Id
instability of, 47.20.Ib
meteorology, 92.60.Fm
in plasmas, 52.40.Hf
sea-air, 92.10.Kp
turbulence, 47.27.nb
Boundary-value problems
in electrostatics, 41.20.Cv
in magnetostatics, 41.20.Gz
numerical analysis, 02.60.Lj
Bound states
field theory, 11.10.St
magnetic bound states in atoms, 32.10.Ee
potential energy surfaces, 31.50.-x
quantum mechanics, 03.65.Ge
Brachytherapy, 87.53.Jw
Bragg reflectors, 42.79.Dj
Brain-machine interface
in applied neuroscience, 87.85.dd
Branes, 11.25.-w
D branes, 11.25.Uv
M theory, 11.25.Yb
Breakdown, electrical
dielectrics, 77.22.Jp
gases, 51.50.+v
Breeder reactors, 28.50.Ft
Bremsstrahlung, 03.50.-z, 41.60.+m, 78.70.Ck
Bright field optical microscopy, in biophysics, 87.64.mc
Brillouin scattering
condensed matter, 78.35.+c
molecular spectra, 33.20.Fb
nonlinear optics, 42.65.Es
plasma, 52.38.Bv
Brillouin zones, 61.50.Ah, 71.20.-b
Brittleness
nanoscale systems, 62.25.Mn
structural failure of materials, 62.20.mj
Broken symmetry phases (nanoscale materials), 73.22.Gk
Brown dwarfs, 97.20.Vs
Brownian motion, 05.40.Jc
in rheology, 83.10.Mj
Bubble chambers, 29.40.-n
Charge carriers
semiconductors and insulators, 72.20.Jv
surfaces, 73.50.Gr
Charge-coupled devices, 85.60.Gz
in astronomical instrumentation, 95.55.Aq
Charged clusters, 36.40.Wa
Charge-density waves
collective excitations, 71.45.Lr
one-dimensional conductors, 72.15.Nj
surface and interface excitations, 73.20.Mf
Charged excitons, 71.35.Pq
Charged Higgs bosons, 14.80.Fd
Charge distribution (nuclear), 21.10.Ft
Charged-lepton interactions with hadrons, 13.60.-r
Charged-particle beams
in accelerators, 29.27.-a
beam optics, 41.75.-i, 41.85.-p
sources and detectors, 07.77.Ka
Charged-particle-induced fission, 25.85.Ge
Charged-particle spectrometers, 29.30.Aj
Charged-particle spectroscopy, 29.30.Ep
Charge-exchange reactions
in biomolecular reactions, 87.15.R-
in chemistry, 82.30.Fi
Charge measurement, 84.37.+q
Charged particles
in atomic and molecular collisions, 34.70.+e
in biomolecular reactions, 87.15.R-
in chemical reactions, 82.30.Fi
Charginos, 14.80.Nb
Charmed baryons, 14.20.Lq
Charmed mesons
hadronic decays, 13.25.Ft
leptonic and semileptonic decays, 13.20.Fc
properties of, 14.40.Lb
Charged quarks, 14.65.Dw
Chemical analysis, 82.80.-d
Chemical beam epitaxy, 81.15.Hi
Chemical bonds, 31.10.+z, 33.15.Fm
biomolecules, 87.15.Fh
crystals, 61.50.Lt
hydrogen bonding, hydrophilic effects, 82.30.Rs
macro- and polymer molecules, 36.20.Hb
Chemical composition
biosphere, *91.67.gj
continental crust, *91.67.gd
Earth's atmosphere, 92.60.H-
Earth's interior, 91.35.Lj
effects on ferroelectric phase transitions, 77.80.bg
effects on transition temperature (superconductivity), 74.62.Bf
galaxies, 98.62.Bj
geochemistry, *91.67.G-, 91.67.Gy
hydrosphere, *91.67.gh
materials, 81.05.-t, 82.80.-d
oceanic crust, *91.67.gf
of solid surfaces and interfaces, 68.35.Dv
stars, 97.10.Tk
Sun, 96.60.Fs
thin films, 68.55.Nq
Chemical equilibria, 82.60.Hc
Chemical interdiffusion, 66.30.Ny
Chemical kinetics, 82.20.-w, 82.40.-g
in biological systems, 82.39.-k, 87.15.R-
single molecule, 82.37.-j
Chemical lasers, 42.55.Ks
Chemically reactive flows, 47.70.Fw
Chemically reactive materials (rheology), 83.50.Jf
Chemical physics. See 82
Chemical processes (astrophysics), 95.30.Ft, 98.39.Bn, 98.58.Bz
Chemical reactions, 82.30.-b, 82.33.-z, 82.35.-x
of biomolecules, 82.39.-k, 87.15.R-
Chemical sensors, 07.07.Df
Chemical shift (NMR), 33.25.+k, 76.60.Cq, 82.56.-b
Chemical synthesis, 81.20.Ka
nanofabrication, 81.16.Be
Chemical thermodynamics, 82.60.-s
Chemical vapor deposition, 81.15.Gh
chemistry of, 82.33.Ya
Chemiluminescence, 78.60.Ps
Chemisorption, 68.43.-h
Chemotaxis, 87.17.Jj
Cherenkov detectors, 29.40.Ka
Cherenkov radiation, 41.60.Bq
Cherenkov-Simons gauge theory, 11.15.Yc
Chevrel phases, superconductivity of, 74.70.Dd
Chirality
biomolecules, 87.15.B-
liquid crystals, 61.30.-v
optical activity, 33.55.+b, 78.20.Ek
particle physics, 11.30.Rd
polymer molecules and macromolecules, 36.20.Ey
Chiral Lagrangians, 82.80.Gg
Chiral media, 81.05.Xj
Chiral symmetries, 11.30.Rd
Chirping, 42.65.Re
Chirps, 42.65.Rw
Chirality
biomolecules, 87.15.B-
liquid crystals, 61.30.-v
optical activity, 33.55.+b, 78.20.Ek
particle physics, 11.30.Rd
polymer molecules and macromolecules, 36.20.Ey
Chiral Lagrangians, 12.39.Fe
Chiral media, 81.05.Xj
Chiral symmetries, 11.30.Rd
Chirping, 42.65.Re
Chromatography, 82.80.Bg
Chromodynamics, quantum, 12.38.-t
Chromosomes, 87.16.Sr
Chromosphere, solar, 96.60.Na
Chromometers, 06.30.Ft
Cilia, 87.16.Qp
Circadian rhythms, 87.18.Yt
Circuits
electronic, 07.50.Ek, 84.30.-r
integrated, 85.40.-e
optoelectronic, 42.82.Fv
optoelectronic, 42.82.Fv
optoelectronic, 42.82.Fv
passive components, 84.32.-y
theory of, 84.30.Bv
Circulation
atmospheric, 92.60.Bh
oceanic, 92.10.ab
Circumstellar envelopes, 97.10.Fy
Cladding, optical fibers, 42.81.Bm
Classical field theory, 03.50.-z
Classical mechanics
continuous media, 83.10.Ff
discrete systems, 45
Clebsch-Gordan coefficients, 03.65.-w, 31.10.+z
Climate
change and variability
dynamics
global, modeling of, 92.70.Np
inter-annual variability (oceanography), 92.05.Df
regional change, 92.70.Kb
Clocks, 06.30.Ft, 95.55.Sh
Clouds
atmospheric optics, 42.68.Ge
interstellar, 98.38.Dg
meteorology, *92.60.N-, 92.60.Nv
stellar, 97.10.Fy
Cluster model, nuclear structure, 21.60.Gx
Clusters
atomic and molecular, 36.40.-c
formation in chemical reactions, 82.30.Nr
galaxy, 98.65.-r
hollow molecular
phonons in, 63.22.Kn
reactions in, 82.33.Fg
reactions on, 82.33.Hk
reactivity of, 36.40.Jn
solid
stellar, 98.20.-d
superfluidity of helium-4 in, 67.25.dw
in zeolites, 82.75.Vx
Coal, 89.30.ag
Coastal oceanography, 92.10.Sx
Coastal processes, 91.50.Cw
Coatings
deposition methods, 81.15.-z
flow in material processing, 47.85.mb
optical, 42.79.Wc
Coercivity (magnetic materials), 75.50.Vv, 75.60.Ej
Coherence
in electron and positron scattering, 34.80.Pa
optical
phase coherent atomic ensembles, 03.75.Hh, 03.75.Kk
Coherent anti-Stokes Raman scattering (CARS), 42.65.Dr
Coherent radiation, plasma-generated, 52.59.Ye
Coherent spectroscopy
femtochemistry, 82.53.Kp
ultrafast spectroscopy (condensed matter), 78.47.jh
Cohesive energy, crystal, 61.50.Lt, 71.15.Nc
Coils, induction, 84.32.Hh
Cold electron emitters, 85.45.Db
Cold working, 81.40.Ef
Collagen
biomolecules, 87.14.em
rheology of, 83.80.Lz
Collective excitations
clusters, 36.40.Gk
excitons, 71.35.Lk
in multilayers, 73.21.Ac
one-dimensional conductors, 72.15.Nj
quantum Hall effects, 73.43.Lp
in nanoscale systems, 73.21.-b
nuclear structure, 21.10.Re
one-dimensional conductors, 71.35.Lk
quantum Hall effects, 73.43.Lp
in nanoscale systems, 73.21.-b
Collective flow, relativistic collisions, 25.75.Ld
Collective models (nuclei), 21.60.Ev
Collimators
for beam intensity modifications (medical physics), 87.56.nk
optics, 42.79.Ag
radiation therapy, 87.56.J-
Collisions
atomic and molecular (see 34)
classical mechanics, 45.50.Tn
elementary particles (see 13)
galaxies, 98.65.Fz
in plasma, 52.20.Hv, 52.20.Fs
Colloids, 82.70.Dd
complex fluids, 47.57.J-
glass transitions in, 64.70.pv
phase separation and segregation in, 64.75.Xc
rheology of, 83.80.Hj
Color centers
absorption spectra, 78.40.Fy, 78.40.Ha
crystal defects, 61.72.jn
defect states, 71.55.-i
EPR, 76.30.Mi
Colorimeters, 07.60.Dq
Color-magnitude diagrams
galaxies, 98.62.Qz
stars, 97.10.Zr
Color transparency (QCD in nuclei), 24.85.+p
Color vision, 42.66.Ne
Colossal magnetoresistance, 75.47.Gk
Combinatorics, 02.10.Ox
Combustion
biomass conversion by, 88.20.jj
enthalpy, 82.60.Cx
reaction kinetics, 82.33.Vx
reactive flows, 47.70.Pq
Combustion synthesis, 81.20.Ka
Comets
atmosphere, *96.25.F-, 96.25.Fx
impact phenomena, 96.25.Pq
interaction with solar wind, 96.50.Ek
ionosphere, *96.25.J-, 96.25.Jz
orbits and rotation, 96.25.De
origin, 96.25.Bd
volcanism, 96.25.Xz
Critical currents (superconductivity), 74.25.Sv
Critical exponents, 64.60.F-
Magnetic critical point effects, 75.40.Cx
Critical fields (superconductivity), 74.25.Op
Criticality, self-organized, 05.65.+b
Critical phenomena
in magnetism, 75.40.-s
in physical chemistry, 82.60.-s
quantum critical phenomena (superconductivity), 74.40.Kb
at surfaces and interfaces, 68.35.Rh
in thermodynamics, 05.70.Jk
Critical points
dynamic critical behavior, 64.60.Ht
equilibrium properties near, 64.60.fd
in magnetic properties, 75.40.-s
multicritical points, 64.60.Kw
Cryobiology (glaciology), 92.40.Vq, *92.40.vu
Cryogenics
instrumentation, 07.20.Mc
Cryosphere, 92.40.-t
global change, 92.70.Ha
Cryptography, quantum, 03.67.Dd
Crystal binding, 61.50.Lt
Crystal defects, 61.72.-y
effects on transition temperature (superconductivity), 74.62.Dh
Crystal fields
level splitting, 71.70.Ch
in magnetic ordering, 75.10.Dg
Crystal growth
in controlled atmospheres, 81.10.St
from melts, 81.10.Fq
physics and chemistry of, 81.10.-h
from solid phases, 81.10.Jt
from solutions, 81.10.Dn
in space, 81.10.Mx
in vacuum, 81.10.Pq
from vapors, 81.10.Bk
theory and models of, 81.10.Aj
Crystallization
liquid-solid transitions, 64.70.dg
in solutions of macromolecules (biomolecules), 87.15.nt
Crystallographic databases, 61.68.+n
Crystallography. see crystal structure
Crystals
impurities, 61.72.-S.
liquid, structure of, 61.30.-v
microstructure, 61.72.-y
morphology and orientation, 81.10.Aj
nonlinear optical, 42.70.Mp
phase diagrams, 81.30.-t
purification, 81.10.-h
quantum, 67.80.-s
Crystal structure
alloys, 61.66.Dk
atomic and molecular scattering methods, 61.05.Np
bulk crystals, 61.50.-f
of clean solid surfaces, 68.35.B-
effects on transition temperature (superconductivity), 74.62.Bf
electron diffraction and scattering methods, 61.05.J-
elemental solids, 61.66.Bi
inorganic compounds, 61.66.Fn
minerals, 91.60.Ed
neutron diffraction and scattering methods, 61.05.F-
organic compounds, 61.66.Hq
theory, 61.50.Ah
x-ray diffraction and scattering methods, 61.05.C-
Crystal symmetry, 61.50.Ah
Cuprates (superconductors), 74.72.-h
Curie point
Ferroelectric phase transitions, 77.80.B-
magnetic, 75.30.Kz, 75.40.-s
Current drive (magnetic confinement), 52.55.Wq
Currents
critical (superconductivity), 74.25.Sv
Degenerative diseases, 87.19.xr
de Haas-van Alphen effect, 71.18.+y
Delay equations, in function theory, 02.30.Ks
Delocalization (surface electron states), 73.20.Jc
Demodulators, 84.30.Qi
optical, 42.79.Hp
Demographics, 89.65.Cd
Demonstration experiments (physics education), 01.50.My
Demultiplexers, 42.79.Sz
Dendrites, 68.70.+w
Dense plasma focus, 52.59.Cd
Density
changes of, 65.40.De
measurement of, 06.30.Dr
Density-functional theory
atomic and molecular physics, 31.15.E-
condensed matter, 71.15.Mb
Depolarization (dielectric properties), 77.22.Ej
Deposition
films and coatings, 81.15.-z
integrated circuits, 85.40.Sz
Depth profiling, 61.72.S-, 81.70.Jb
Desertification, 92.40.Iv
Design of experiments (computers), 07.05.Fb
Desorption
electron-stimulated, 68.43.Rs, 79.20.La
field induced, 79.70.-q
kinetics of, 68.43.Nr
photon-stimulated, 68.43.Tj, 79.20.La
thermal, 68.43.Vx
Detectors
bolometers, 07.57.Kp, 95.55.Rg
Cherenkov, 29.40.Ka
infrared, 07.57.Kp, 85.60.Gz
microwave, 07.57.Kp
optical, 42.79.Fw
radiation, 29.40.-n
radiowave, 07.57.Kp
submillimeter wave, 07.57.Kp, 85.25.Pb
x-ray, 07.85.Fv
Detonation
chemical reactions, 82.33.Vx
fluid dynamics, 47.40.Rs
seismology, 91.30.Rz
Deuterium-induced reactions, 25.45.-z
Deuterons, 27.10.+h
Developmental diseases, 87.19.xt
Devonian period, 91.70.ff
Diamagnetic resonance, 76.40.+b
Diamagnetism, 75.20.-g
local moments in compounds, 75.20.Hr
in gases, 51.60.+a
in metals and alloys, 75.20.En
in nonmetals, 75.20.Ck
Diamond, 81.05.ug
Diamond anvil cells, 07.35.+k
Diaphragms, optical, 42.79.Ag
Diatomic molecules, electron correlation in, 31.15.vn
Dichroism
materials, 78.20.Fn
molecules, 33.55.+b
Dictionaries, 01.30.Kj
Dielectric breakdown
gases, 51.50.+v
insulators, 77.22.Jp
Dielectric constant, 78.20.Cj
Dielectric devices, 85.50.-n
Dielectric function, 77.22.Ch
collective excitations, 71.45.Gm
Dielectric films, 77.55.-g
epitaxial and superlattice films, 77.55.Px
high-permittivity gate dielectric films, 77.55.D-
high permittivity capacitive films, 77.55.F-
low-permittivity films, 77.55.Bh
mulliferroic/magnetoelectric films, 77.55.Nv
piezoelectric and electrostrictive films, 77.55.H-
pyroelectric films, 77.55.Kt
Dielectric loss, 77.22.Gm
Dielectric materials, 77.84.-s
borides, 77.84.Bw
carbides, 77.84.Bw
chalcogenides, 77.84.Bw
composite materials, 77.84.Lf
eumulsions, 77.84.Nh
KDP-type crystals, 77.84.Fa
liquid crystals, 77.84.Nh
liquids, 77.84.Nh
niobates, 77.84.Ek
nitrides, 77.84.Bw
organic compounds, 77.84.Jd
oxides, 77.84.Bw
polymers, 77.84.Jd
PZT, 77.84.Cg
suspensions, 77.84.Nh
tantalates, 77.84.Ek
TGS-type crystals, 77.84.Fa
titanates, 77.84.Cg
in electrochemistry, 82.45.Un
thin films, 77.55.-g
Dielectric properties
of gases, 51.70.+f
new topics in, 77.90.+k
of plasma, 52.25.Mq
related to treatment conditions, 81.40.Tv
of solids and liquids, 77.22.-d
of tissues and organs, 87.19.rf
Dielectric relaxation, 77.22.Gm
Differential equations
in mathematical aspects of biological physics, 87.10.Ed
numerical approximation and analysis, 02.60.Lj
ordinary, 02.30.Hq
partial, 02.30.Jr
Differential geometry, 02.40.-k
Differential overlap method (atomic and molecular physics), 31.15.bu
Differential thermal analysis (DTA), 81.70.Pg
Diffraction
acoustical, *43.20.Fn, *43.25.Jh
electron, 61.05.J- 
neutron, 61.05.fm
optical, 42.25.Fx
x-ray, 61.05.cp
Diffraction gratings
holographic, 42.40.Eq
optical, 42.79.Dj
Diffractometers
electron, 07.78.+s
x-ray, 07.85.Jy
Diffusion
of adsorbates, 68.43.Jk
in atmosphere, 92.60.hk
of biomolecules, 87.15.Vv
in chemical reaction kinetics, 82.40.Ck
clusters, 36.40.Sx
in gases, 51.20.-d
of gases in solids, 66.30.je
of impurities, 66.30.J-
in liquids, 66.10.C-
in nanoscale solids, 66.30.Pa
neutron, 28.20.Gd
nuclear magnetic resonance, 82.56.Lz
in ocean, 92.10.Lq
of protons in solids, 66.30.jp
in quantum solids, 66.30.Ma
in solids, 66.30.-h
at solid surfaces and interfaces, 68.35.Fx
spin, 75.40.Gb
turbulent, 47.27.tb
of water in solids, 66.30.jj
Diffusion-limited aggregation, 61.43.Hv
Digital circuits, 84.30.Sk
intermolecular interactions, 87.15.hg
transport dynamics, 87.15.hj
ultrafast dynamics, 87.15.ht
of magnetic domain structures, 75.78.Fg
of magnetic nanoparticles, 75.75.Jn
Dynamometers, 07.10.Pz

E

Ear, *43.64.-q, 43.64.+r
Early Universe, 98.80.Cq
Earth
core (tectonophysics), 91.45.Kn
crust movement, 91.10.Kg, 91.45.Ga
interior structure and properties, 91.35.-x
magnetic field, 91.25.-r
Earthquakes, *91.30.P-, 91.30.Px
forecasting, *91.30.pd
magnitudes, *91.30.pc
phase transitions, 64.60.av
Echelles, 42.79.Dj
Eclipses, 95.10.Gi
Ecology, 87.23.-n
biogeosciences, *91.62.Mn
ecohydrology, plant ecology, 92.40.Oj
ocean biology, *92.20.jm, *92.20.jp
pattern formation in, 87.23.Cc
population dynamics, 87.23.Cc
Economics
business and management, 89.65.Gh
economic issues, sustainability, cost trends (renewable energy), 88.05.Lg
Econophysics, 89.65.Gh
ECR plasma heating, 52.50.Sw
Eddies (turbulent flows)
eddy-viscosity closures, 47.27.em
large-eddy simulation, 47.27.ep
Eddy-current testing, 81.70.Ex

Editorial note, 99.10.Np
Editorials, 01.30.Ww
Education, 01.40.-d
Educational aids, 01.50.-i
EEG, in neuroscience, 87.19.le
Effective mass, 71.18.+y
Eikonal approximation, 11.80.Fv
Einstein equation, general relativity, 04.20.-q
Einstein-Maxwell spacetime, 04.40.Nr
Elastic deformation
material flow, 83.50.-v
material treatment effects on, 81.40.Rs
mechanical properties of solids, 62.20.F-
Elasticity
in continuum mechanics of solids, 46.25.-y, 46.35.+z
mechanical properties of solids, 62.20.D-
rocks and minerals, 91.60.Ba
static, 46.25.-y
superconductors, 74.25.Ld
theory in biological physics, 87.10.Pq
Elastic moduli, 62.20.de
Elastic scattering
of atoms and molecules, 34.50.Cx
deuteron-induced reactions, 25.45.De
electrons by atoms and molecules, 34.80.Bm
hadron-induced, 13.85.Dy
heavy-ion reactions, 25.70.Bc
lepton-induced reactions, 25.30.Bf
meson-induced reactions, 25.80.Dj
nucleon-induced reactions, 25.40.Cm, 25.40.Dn
do photons and leptons by hadrons, 13.60.Fz
reactions induced by unstable nuclei, 25.60.Bx
triton-, 3He-, and 4He-induced reactions, 25.55.Cf
Elastic structures, acoustic scattering by,* 43.40.Fz
Elastic waves
rheology, 83.60.Uv
solids, 62.30.+d
Elastomeric polymers, 83.80.Va
Elastomers
rheology, 83.80.Va, 83.80.Wx
structure, 61.41.+e
Elasto-optical effects, 78.20.H-, 78.20.hb
Electrets, 77.22.-d
Electrical conductivity
Earth, 91.25.Qi
materials treatment effects on, 81.40.Rs
metals and alloys
semiconductors and insulators, 72.20.-i
superconductors, 74.25.fc
surfaces, 73.25.+i
thin films, 73.50.-h
EELS (electron energy loss spectroscopy), 79.20.Uv
Electrical impedance tomography, 87.63.Pn
Electrical instruments, 07.50.-e
Electrical noise, 07.50.Hp
Electrical phenomena in gases, 51.50.+v
Electrical sensors, 07.07.Df
Electrical shielding, 07.50.Hp
Electric breakdown, 51.50.+v, 52.80.-s, 77.22.Jp
Electric charge, 41.20.Cv, 84.37.+q
Electric current measurement, 84.37.+q
Electric discharges, 52.80.-s
Electric fields
effects on biological systems, 85.50.C-
effects on liquid crystal structure, 61.30.Gd
effects on material flows, 83.60.Np
electromagnetism, 41.20.+q
galactic, 98.62.En
instrumentation for measurement, 07.50.-e
in ionosphere, 94.20.Ss
in magnetosphere, 94.30.Kq
measurement, 84.37.+q
Milky Way, 98.35.Eg
solar, 96.60.Hv
stellar, 97.10.Ld
therapeutic applications, 87.50.ct
Electric impedance measurement, 84.37.+q
Electric moments
atomic, 32.10.Dk
hadronic, 13.40.Em
molecular, 33.15.Kr
nuclear, 21.10.Ky
Electric motors, 84.50.+d
Electric power transmission, 88.80.H-
ac power transmission, 88.80.hm
grid-connected energy resources, 88.80.Cd
high-current, and high voltage (electrical engineering), 84.70.+p
high-voltage dc transmission, 88.80.hj
rf power transmission, 88.80.hp
superconducting cables
superconducting wires and tapes (electrical engineering), 84.71.Mn
transmission grids, 88.80.hh
wireless transmission, 88.80.ht
Electroacoustic transducers, *43.38.Bs, 43.38.Dv, 43.38.Fx
Electroanalytical chemistry, 82.45.Rr
Electrocaloric effects, 77.70.+a
Electrochemical analysis, 82.80.Fk
Electrochemical capacitors, 82.47.Uv
Electrochemical displays, 82.47.Tp
Electrochemical energy conversion, 82.47.-a
Electrochemical engineering, 82.47.Wx
Electrochemical sensors, 82.47.Re
Electrochemical synthesis, 82.45.Aa
Electrochemical techniques in biophysics, 87.80.Kc
Electromechanics, 82.47.-h
applied, 82.47.-a
bioelectrochemistry, 82.45.Tv, 87.15.Tf
Electrochromic devices, 85.60.Pg
Electrochromism, 78.20.Jq
Electrodeposition
Electrochemical effects, 82.45.Qr  
Methods of film deposition, 81.15.Pq  
Electrodes (electrochemistry), 82.45.Fk  
Electrodissolution, 82.45.Qr  
Electrodynamics  
  classical, 03.50.De  
  quantum, 12.20.-m  
Electroelasticity, 46.25.Hf  
Electrogasdynamic energy conversion, 84.60.Rb  
Electrohydrodynamics, 47.65.-d  
Electrokinetic effects (complex fluids), 47.57.jd  
Electro-optics, 42.25.Bs  
  radiowaves, 41.20.Jb, 84.40.-x  
  disordered solids, 71.23.-k  
  in plasma, 52.35.Hr  
  crystalline solids, 71.20.-b  
  microwaves, 84.40.-x  
  magnetospheric propagation, 94.30.Tz  
  ionospheric propagation, 94.20.Bb, 94.20.ws  
  relativistic, 41.75.Ht  
  atmospheric propagation, 92.60.Ta  
  in radiation therapy  
  atmospheric optics, 42.68.Ay  
  nuclear, 21.10.Ky  
Electromagnetic fields, 03.50.De, 41.20.-q  
  solar, *96.60.T-  
  wave propagation, 41.20.Jb  
Electromagnetic testing, 81.70.Ex  
Electromagnetic transitions  
  nuclear  
  waves  
  atmospheric optics, 42.68.Ay  
  atmospheric propagation, 92.60.Ta  
  ionospheric propagation, 94.20.Bb, 94.20.ws  
  magnetospheric propagation, 94.30.Tz  
  microwave, 84.40.-x  
  in plasma, 52.35.Hr  
  radiowaves, 41.20.Jb, 84.40.-x  
  wave optics, 42.25.Bs  
Electromagnetism. See 41  
Electromechanical effects, 77.65.-j  
  acousto-electric effects, 77.65.Dq  
  electromagnetic resonance, 77.65.Fs  
  electrostrictive effects, 77.65.Bn  
  strain-induced electromechanical effects, 77.65.Ly  
  Electrometers, 07.50.Ls  
  Electromigration, 66.30.Qa  
  Electron affinity  
  atoms, 32.10.Hq  
  molecules, 33.15.Ry  
Electron-atom collisions  
  elastic scattering, 34.80.Bm  
  excitation and ionization, 34.80.Dp  
  Electron attachment, 34.80.Ht, 34.80.Lx  
  Electron beam annealing, 81.40.Ef  
  Electron beam-assisted deposition, 81.15.Ij  
  Electron beam induced current (EBIC), 68.37.Hk  
  Electron beam lithography, 85.40.Hp  
  Electron beam radiation effects, 61.80.Fe  
  Electron beams  
  in medicine  
  nonrelativistic, 41.75.Fr  
  in particle accelerators, 29.27.-a  
  polarized (atomic and molecular scattering), 34.80.Nz  
  in radiation therapy  
  relativistic, 41.75.Ht  
  Electron capture (nuclear physics), 23.40.-s  
  Electron correlation calculations, 31.15.V-  
  Electron-cyclotron waves (plasma), 52.35.Hr, 52.35.Qz  
  Electron density of states  
  crystalline solids, 71.20.-b  
  disordered solids, 71.23.-k  
  surfaces and interfaces, 73.20.-r  
  Electron diffraction  
  in biophysics, 87.64.Bx  
  in structure determination, 61.05.J-  
  Electron diffraclometers, 07.78.+s  
  Electron doped materials (cuprate superconductors), 74.72.Ek  
  Electron dosimetry, 87.53.Bn  
  Electron energy loss spectroscopy (EELS), 79.20.Uv  
  Electron gas  
  quantum statistical mechanics, 05.30.Fk  
  theories and models, 71.10.Ca  
  two-dimensional, 73.20.-r  
  Electron-hadron scattering, 13.60.-r  
  Electron-hole drops and plasma, 71.35.Ee  
  Electron holography  
  in structure determination, 61.05.jp  
  Electronic circuits, 07.50.Ek, 84.30.-r  
  microelectronics, 85.40.-e  
  microwave, 84.40.Dc  
  passive components of, 84.32.-y  
  Electron excitation and ionization  
  atomic collisions, 34.50.Fa  
  molecular collisions, 34.50.Gb  
  Electronic publications, 01.30.Xx  
  Electronic publishing, 01.20.+x  
  Electronic structure  
  of condensed matter  
  in biophysics, 87.64.Ee  
  in observations of crystal defects, 61.72.Ff  
  in structure determination, 68.37.-d  
  Electron-molecule collisions  
  dissociation, 34.80.Ht  
  elastic scattering, 34.80.Bm  
  excitation and ionization, 34.80.Gs  
  Electron optics, 41.85.-p  
  Electron paramagnetic resonance (EPR)  
  in biophysics, 87.64.kh, 87.80.Eg  
  in condensed matter, 76.30.-v  
  in defect structure determination, 61.72.Hh  
  of molecules, 33.35.+r  
  Electron phase diagrams, 71.10.Hf  
  Electron-phonon interactions  
  electronic structure of solids, 71.38.-k  
  electronic transport, 72.10.Di  
  lattice dynamics, 63.20.Ay  
  Electron-positron collisions, hadron production by, 13.66.Bc
Environmental impacts
air quality, 92.60.Sz
ground water quality, *92.40.kc
renewable energy resources, 88.05.Np
surface water quality, *92.40.qc

Environmental magnetism, 91.25.fd

Environmental pollution
air pollution, 92.60.Sz
land pollution, soil pollution, *91.62.Rt
water pollution, *92.40.kc, *92.40.qc

Environmental regulations, 89.60.Fe

Enzymatic catalysis, 87.15.R-
Enzymes, 87.14.ej

Ephemerides, 95.10.Km

Epilepsy, 87.19.xm

Epitaxial dielectric films, 77.55.Px

Epoxide resins, 83.80.-k

EPR paradox, 03.65.Ud

Equations of state
gases, 51.30.+i
general theory, 05.70.Ce, 64.10.+h
of metals and alloys, 64.30.Ef
of nonmetals, 64.30.Jk
nuclear matter, 21.65.Mn
rock formation, 91.60.Fe

Equatorial ionosphere, 94.20.dt
Equilibrium constants, 82.60.Hc

E region, ionosphere, 94.20.dg

Errata, 99.10.Cd

Error theory, 06.20.Dk

Eruptions, volcanic, 91.40.Ft

ESCA, 82.80.Pv

Estuarine oceanography, 92.10.Sx

Etalons, 42.79.Bh

Etching, 81.65.Cf

Etch pits, 61.72.Ff

Ethanol (from biomass), 88.20.ff

Faraday cups, 41.85.Qg

Faraday effect, 33.57.+c, 78.20.Ls

Fatigue
effects of materials treatment, 81.40.Np
structural mechanics, 46.50.+a
structural failure of materials, 62.20.me

Faults, plate tectonics, 91.55.Jk

Femtochemistry
coherent spectroscopy of atoms and molecules, 82.53.Kp
femtosecond probing
pump probe studies

Femtosecond techniques, 06.60.Jn
femtochemistry, 82.53.-k
in nonlinear optics, 42.65.Re
in spectroscopy of solid state dynamics, 78.47.J-

Fermi-Dirac statistics, 05.30.Fk

Fermi gas, 71.10.Ca

Fermi liquid
nonconventional mechanisms of superconductivity, 74.20.Mn
theory of, 71.10.Ay

Fermion degeneracy
in quantum fluids, 67.10.Db

Fermions
composite, 71.10.Pm
systems (quantum statistical mechanics), 05.30.Fk

Ferrimagnetic resonance, 76.50.+g

Ferrimagnetics, 75.50.Gg

Ferrite devices, 85.70.Gg
Ferrites, 75.50.Gg
Ferroelectric devices, 85.50.-n
Ferroelectric memories, 85.50.Gk
Ferroelectricity, 77.80.-e
domain structure, 77.80.Dj
phase transitions, 77.80.B-
switching phenomena, 77.80.Fm
Ferroelectric materials, 77.84.-s
relaxor ferroelectrics, 77.80.Jk
Ferroelectric phase transitions, 77.80.B-
effects of material composition, 77.80.bg
interface effects, 77.80.bn
scaling effects, 77.80.bj
strain effects, 77.80.bn
Ferrofluids (magnetohydrodynamics), 47.65.Cb
Ferromagnetic materials
ing and its alloys, 75.50.Bb
metals other than iron, 75.50.Cc
nonmetals, 75.50.Dd
Ferromagnetic resonance, 76.50.+g
Few-body systems
atomic systems, calculations for, 31.15.ac
classical mechanics, 45.50.Jf
nuclear structure, 21.45.-v
Fiber gyro's, 42.81.Pa
Fiber lasers, 42.55.Wd
Fiber-optic instruments, 07.60.Vg
Fiber optics, 42.81.-i
Fiber-optic sensors, 42.81.Pa
Fiber-reinforced composites, 81.05.Ni
Fibers, synthetic and natural, 81.05.Lg
Fibrils, 87.14.em
Field desorption, 79.70.+q
Field effect transistors, 85.30.Tv
spin polarized, 85.75.Hh
Field emission, 79.70.+q
Field-emission displays, 85.45.Fd
Field-emission microscopy, 68.37.Vj
Field effect transistors and arrays, 85.45.Db
Field ionization, 79.70.+q
Field-ion microscopy, 68.37.Vj
Field theory, 11.10.-z
classical, 03.50.-z
gauge, 11.15.-q
noncommutative, 11.10.Nx
quantized fields, 03.70.+k
unified, 04.50.-h, 12.10.-g
Figure of merit (energy conversion), 84.60.Bk
Filamentation, in plasma, 52.38.Hb
Filaments
in subcellular structure and processes, 87.16.Ka
Film deposition
chemical vapor deposition, 81.15.Gh
electron beam-assisted deposition, 81.15.Jj
electron beam deposition, 81.15.Dj
electrodeposition, 81.15.Pq
epitaxy
hot filament evaporation deposition, 81.15.Dj
ion beam-assisted deposition, 81.15.Jj
laser ablation deposition, 81.15.Fg
spray coating, 81.15.Rs
sputtering deposition, 81.15.Cd
theory and models of, 81.15.Aa
Films
dielectric, 77.55.-g
electrical properties of, 73.61.-r
electronic transport in, 73.50.-h
graphene, 68.65.Pq
growth, deposition, 81.15.-z
Langmuir-Blodgett films, 68.18.-g, 68.47.Pc
liquid films, 68.15.+e
magnetic properties of, 75.70.Ak
microscopic studies of, 68.37.-d
in normal phase 3He, 67.30.ej
in normal phase 4He, 67.25.bh
optical properties of, 78.20.-e, 78.66.-w
physical properties of, 68.60.-p
of solid 3He, 67.80.dm
of solutions of 3He in liquid 4He, 67.30.hr
structure and morphology, 68.55.-a
superconducting, 74.78.-w
in superfluid phase 3He, 67.30.hr
in superfluid phase 4He, 67.25.dp
videos (educational aids), 01.50.ff
Filters
acoustic, *43.58.Kr
electronic, 84.30.Vn
optical, 42.79.Ci
Financial markets, 89.65.Gh
Fine structure
atoms, 32.10.Fn
molecules, 33.15.Pw
Finite difference methods, 02.70.Bf
in atomic and molecular physics, 31.15.xf
in fluid dynamics, 47.11.Bc
Finite element analysis, 02.70.Dh
in biological physics, 87.10.Kn
in fluid dynamics, 47.11.Fg
Finite-size systems
phase transitions in, 64.60.an
Finite volume methods (in fluid dynamics), 47.11.Df
Fission-fusion reactions, 25.70.JJ
Fission reactions, 25.85.-w
Fission reactors
design and components, 28.41.-i
fuel cycles, 28.41.Vx
fuel elements, 28.41.Bm
moderators, 28.41.Pa
radioactive wastes in, 28.41.Kw
reactor cooling, 28.41.Fr
reactor safety, 28.41.Te
types of, 28.50.-k
Flagella, 87.16.Qp
Flames
reactions in, 82.33.Vx
reactive flows, 47.70.Pq
Flare stars, 97.30.Nr
Flavor symmetries, 11.30.Hv
Flight (motor systems), 87.19.lu
Floods, 92.40.Qk, *92.40.qp
Flow computation, 47.11.-j
Flow control, 47.85.L-
drag reduction, 47.85.lb
flow noise reduction, 47.85.lf
Flow imaging (blood flow), MRI, 87.61.Np
Flow in quasi-one-dimensional systems, 47.60.-i
Flow instabilities
general, 47.20.-k
interfacial, 47.20.Ma
non-Newtonian flows, 47.50.Gj
in rheology, 83.60.Wc
Flowmeters, 47.80.-v
Flow receptivity, 47.20.Pc
Flow visualization, 47.80.Jk
Fluctuation phenomena
biomolecules, 87.15.Ya
magnetically ordered materials, 75.30.Mb
nuclear reactions, 24.60.Ky
plasma, 52.25.Gj
quantum optics, 42.50.Lc
statistical physics, 05.40.-a
in superconductivity, 74.40.-n
valence fluctuations (diamagnetism and paramagnetism), 75.20.Hr
Fluid dynamics. see fluid flow
Fluid equation (plasma simulation), 52.65.Kj
Fluid flow
biological, 47.63.-b
compressible, 47.40.-x
control flow, 47.85.L-
instruments for, 47.80.-v
laminar, 47.15.-x
low-Reynolds number (creeping), 47.15.G-
non-Newtonian, 47.50.-d
rarefied gas dynamics, 47.45.-n
reactive, radiative and nonequilibrium, 47.70.-n
relativistic, 47.75.+f
rotational, 47.32.-y
through porous media, 47.56.+r
Fluidics, 47.85.Np
Fluidized beds, 47.55.Lm
Fluid mechanics, applied, 47.85.-g
Fluid planets
atmosphere, *96.15.H-, 96.15.Hy
ionosphere, 96.15.Hy, *96.15.hk
surfaces, 96.15.Lb
Fluids
optical properties of, 78.15.+e
quantum (see 67)
statistical mechanics, 05.20.Jj
Fluorescence
of atoms, 32.50.+d
in biophysics, 86.74.k
in condensed matter, 78.55.-m
of molecules, 33.50.Dq
x-ray, 78.70.En
Fluoroscopy, 87.59.C-, 87.59.cf
Flute instability, 52.35.Py
Flux-line lattices, 74.25.Uv
Flux creep, 74.25.Wf
Foams, 82.70.Rr
complex fluids, 47.57.Bc
rheology, 83.80.Lz
Fog
atmospheric optics, 42.68.Ge
meteorology, *92.60.J-, 92.60.Jq
Fokker-Planck equation
kinetic theory of gases, 51.10.+y
plasma simulation, 52.65.Ff
statistical physics, 05.10.Gg
Folding
structure of biomolecules, 87.15.Cc, 87.15.hm
Folds, tectonic, 91.55.Hj
Food, rheology of, 83.80.Lz
Food webs (ocean biology), *92.20.jq
Forced convection, 44.27.+g
Forces
interatomic, 34.20.Cf
intermolecular, 34.20.Gj
measurement of, 07.10.Pz
in Newtonian mechanics, 45.20.da
nuclear, 21.30.-x
Forensic science, 89.20.Mn
forensic acoustics, *43.72.Uv
Formation heat, 82.60.Cx
Form factors
electromagnetic, 13.40.Gp
 photon-atom interactions, 34.50.-s
Forming, 81.20.Hy
Fossil fuels, 89.30.A-
coal, 89.30.ag
oil, 89.30.aj
natural gas, 89.30.an
petroleum, 89.30.aj
Fourier analysis, 02.30.Nw
Fourier optics, 42.30.Kq
Fourier transform spectra, 33.20.Ea
Four-wave mixing, 42.65.Hw
Four-wave mixing spectroscopy
nonlinear optical spectroscopy, 78.47.nj
Fourth generation quarks, 14.65.Jk
Fractals
fluid dynamics, 47.53.+n
nonlinear dynamics, 05.45.Df
in phase transitions, 64.60.al
magnetic confinement, 52.55.-s
unstable-nuclei-induced, 25.60.Pj
Fusion-fission reactions, 25.70.Jj
Fusion fuels, fast ignition of, 52.57.Kk
Fusion products effects, 52.55.Pi
Fusion reactors
fueing and ignition, 28.52.Cx
reactor safety, 28.52.Nh
structural materials for, 28.52.Fa
Fuzzy logic, 07.05.Mh

G
Galactic center, 98.35.Jk
Galactic mass, 98.35.Cc, 98.62.Ck
Galactic radioactivity (nuclear astrophysics), 26.30.Jk
Galactic winds, 98.35.Nq, 98.62.Nx
Galaxies
active, 98.54.-h
clusters of, 98.56.-p
local group, 98.56.-p
normal, 98.52.-b
primordial, 98.54.Kt
properties of, 98.62.-e
protogalaxies, 98.54.Kt
Galerkin method, 02.70.Dh
Galvanomagnetic effects
metals and alloys, 72.15.Gd
semiconductors and insulators, 72.20.My
thin films, 73.50.Jt
Gamma-ray detectors, 07.85.Fv, 29.40.-n
superconducting, 85.25.Oj
Gamma-ray lasers, 42.55.Vc
Gamma rays
astronomical observations, 95.85.Pw
atmospheric emissions, 92.60.hx
bursts, 98.70.Rz
effects on biological systems, 87.53.-j
in laser-plasma interactions, 52.38.Ph
in photochemistry, 82.50.Kx
irradiation damage by, 61.80.Ed
Gamma-ray sources, 07.85.-m
astronomical, 98.70.Rz
Gamma-ray spectroscopy
chemical analysis, 82.80.Ej
condensed matter, 76.80.+y
instrumentation, 07.85.Nc
nuclear physics, 29.30.Kv
Gamma-ray telescopes, 95.55.Ka
Gamma transitions, 23.20.Lv
Garnet devices, 85.70.Ge
Garnets (ferrites), 75.50.Gg
Gas chromatography, 82.80.Bg
Gas dynamic traps (magnetic confinement), 52.55.Jd
Gases
in chemical oceanography, 92.20.Uv
interplanetary, 96.50.Dj
rarefied, dynamics of, 47.45.-n
ultracold, 67.85.-d
Gas-filled counters, 29.40.Cs
Gas lasers, 42.55.Lt
Gas-liquid flows, 47.55.Ca
Gas-liquid interfaces, 68.03.-g
Gas sensors, 07.07.Df
Gas-surface interactions, 34.35.+a
Gauge bosons, 14.70.-e
production in electron-positron interactions, 13.66.Fg
Gauge field theories, 11.15.-q
topologically massive, 11.15.Wx
Chern-Simons, 11.15.Yc
Gauge sector extensions (electroweak interactions), 12.60.Cn
Gauge/string duality, 11.25.Tq
Gels
aerogels, reactions in, 82.33.Ln
as disperse systems, 82.70.Gg
microgels, rheology of, 83.80.Kn
rheology of, 83.80.Kn
thermovisible gels, 83.80.Kn
rheological properties, 83.80.Kn
Genealogical trees (complex systems), 89.75.Hc
General physics (physics education), 01.55.+b
General relativity. See 04
Genetic diseases, 87.19.xk
Genetic engineering, 87.85.md
Genetic switches
in biological complexity, 87.18.Cf
Genomics, 87.18.Wd
techniques in biotechnology, 87.80.St, 87.85.md
Genetic techniques, 87.80.St
Geochemical cycles
geochemistry, 91.67.Ne
meteorology, 92.60.hn
Geochemical processes, *91.67.F-, 91.67.Fx
intraplate, *91.67.fh
mid-oceanic ridge, *91.67.ff
subduction zone, *91.67.fc
Geochemistry
fluid and melt inclusion, 91.67.St
fresh water, 92.40.Bc
low-temperature, 91.67.Vf
organic and biogenic, 91.67.Uv
radiogenic isotopic, 91.67.Qr
sedimentary, 91.67.Ty
stable isotopic, 91.67.Rx
Geochronology, 91.80.+d, *91.80.-d
isotopic dating, *91.80.Hj
sedimentary, *91.80.Wx
siderereal, *91.80.Ef
Geodesy, 91.10.-x
Geodetic systems, 91.0.Aj
Geoelectricity, 91.25.Qi
Geographical regions, 93.30.-w
Geological materials
physical properties, 91.60.-x
rheology, 83.80.Nb
Geological time, 91.70.-c
Geology, 91.65.-n
Geomagnetism, 91.25.-r
gemagnetic excitation, 91.25.Xg
geomagnetic induction, 91.25.Wb
magnetic anomalies, 91.25.Rt
magnetic fabrics, 91.25.St
magnetic field reversals, 91.25.Mf
remagnetization, 91.25.Ux
spatial variations in, 91.25.G-
time variations in, *91.25.L-, 91.25.Le
Geometrical methods (classical mechanics), 45.10.Na
Geometrical optics, 42.15.-i
Geometric inequalities, 02.40.Ft
Geometric mechanics, 02.40.Yy
Geometric phases (quantum mechanics), 03.65.Vf
Geometry
algebraic, 02.10.-v
differential, 02.40.Hw, 02.40.Ma
Euclidean and projective, 02.40.Dr
noncommutative, 02.40.Gh
Riemannian, 02.40.Ky
Geophysical instrumentation, 93.85.-q
Geophysical prospecting (acoustical methods), *43.40.Ph
Geophysics. See 91
Geothermal energy
brines and their dissolved matter, 88.10.J-
hot dry rock, 88.10.Eb
hydrothermal reservoirs, 88.10.F-
Hall effect
quantum, 73.43.-f
in semiconductors, 72.20.My
in thin films, 73.50.Jt
Hall effect devices, 85.30.Fg
hybrid, 85.75.Nn
Hamiltonian mechanics, 45.20.Jj, 47.10.Df
Handbooks, 01.30.Kj
Hardening (materials treatments), 81.40.Cd, 81.40.Ef
Hardness
of solids, 62.20.Qp
in structural mechanics, 46.55.+d
Harmonic generation (nonlinear optics), 42.65.Ky
Harmonic oscillators, 03.65.Ge
Hartree-Fock approximation
electronic structure of atoms and molecules, 31.15.xr
electronic structure of solids, 71.15.Ap
nuclear-structure models, 21.60.Jz
Hawking effects, 04.60.-m
Hazards, natural (biogeosciences), *91.62.Ty
Hearing, *43.66.-x, 43.66.+y
sensory systems, 87.19.lt
Hearing aids, *43.66.Ts
Heart, hemodynamics of, 87.19.ug
Heat capacity
of amorphous solids and glasses, 65.60.+a
in chemical thermodynamics, 82.60.Fa
of crystalline solids, 65.40.Ba
of liquids, 65.20.Jb
at magnetic critical points, 75.40.Cx
of nanocrystals, 65.80.-g
Heat conduction, 44.10.+i
Heat engines, 07.20.Pe
Heaters, 07.20.Hy
Heating
buildings
plasma
Heat pumps
grothermal, 88.10.cd
thermal instruments, 07.20.Pe
Heat transfer
analytical and numerical techniques, 44.05.+e
boundary layer, 44.20.+b
channel and internal, 44.15.+a
convective, 44.25.+f, 44.27.+g
Earth's interior, 91.35.Dc
heat-pulse propagation in solids, 66.70.-f
inhomogeneous and porous media, 44.30.+v
multiphase systems, 44.35.+e
radiative, 44.40.+a
in turbulent flows, 47.27.T-
Heat treatments, effects on microstructure, 81.40.Gh
Heavy-fermion solids
diamagnetism and paramagnetism, 75.20.Hr
electron states, 71.27.+a
magnetically ordered materials, 75.30.Mb
noncuprate superconductors, 74.70.Tx
Heavy-ion nuclear reactions
low and intermediate energy, 25.70.-z
relativistic, 25.75.-q
Heavy-ion spectroscopy, 29.30.-h
Heavy-particle decay, 23.70.+j
Heavy-particle dosimetry, 87.53.Bf
Heavy quark theory, 12.39.Hg
Heavy quarkonia, 14.40.Pq
Heinrich events (oceanography), 92.05.Ek
Heisenberg model, 75.10.Jm
Hele-Shaw flows, 47.15.gp
Heliacs, 52.55.Hc
Helicity amplitudes, 11.80.Cr
Helicity injection (magnetic confinement), 52.55.Wq
Heliopause, 96.50.Ek
Helioseismology, 96.60.Ly
Helium
burning in stars, 26.20.Fj
liquid mixtures, 67.60.-g
solid, 67.80.-s
3He
-induced nuclear reactions, 25.55.-e
normal phase, 76.30.E-
solid phase, 76.80.D-
superfluid phase, 76.30.H-
4He, 67.25.-k
-induced nuclear reactions, 25.55.-e
normal phase
solid phase, 67.80.B-
superfluid phase, 67.25.D-
superfluid transition in, 67.25.dj
supersolid, 67.80.bd
Hermodynamics, 87.19.U-
biological fluid dynamics, 47.63.-b, 87.85.gf
blood-brain barrier, 87.19.um
of heart and lungs, 87.19.ug
of peripheral vascular system, 87.19.uj
physiological materials (rheology), 83.80.Lz
Herbig-Haro objects, 97.21.+a
Hertzsprung-Russell diagrams, 97.10.Zr
Heterostructures
electrical properties, 73.20.-b
electron states and collective excitations in, 73.21.-b
magnetic properties of, 75.70.Cn
optical properties, 78.66.-w
photoemission and photoelectron spectra, 79.60.Jv
structure and nonelectronic properties of, 68.65.-k
superconducting, 74.78.Fk
H I and H II regions
external galaxies, 98.58.Gc, 98.58.Hf
Milky Way, 98.38.Gt, 98.38.Hv
Higgs bosons
charged Higgs bosons, 14.80.Fd
neutral Higgs bosons, 14.80.Ec
production in electron-positron interactions, 13.66.Fg
standard model, 14.80.Bn
supersymmetric Higgs bosons, 14.80.Da
Higgs sector extensions, 12.60.Fr
High-coercivity materials, 75.50.Vv
High-current technology, 84.70.+p
High-energy reactions, hadron-induced, 13.85.-t
High-field effects (conductivity)
bulk matter, 72.20.Ht
thin films, 73.50.Fq
High-frequency discharges, 52.80.Pi
High-frequency effects (conductivity)
bulk matter, 72.30.+q
thin films, 73.50.Mx
High-frequency plasma confinement, 52.58.Qv
High-pressure effects
in solids and liquids, 62.50.-p
structural properties of materials, 81.40.Vw
High pressure production and techniques, 07.35.+k
High resolution transmission electron microscopy (HRTEM), 68.37.Og
High-speed techniques, 06.60.In
High-Tc superconductors
cuprates, 74.72.-h
devices, 85.25.-j
general properties, 74.25.-q
theory of, 74.20.-z
transition temperature, 74.10.+v, 74.62.-c
High-temperature techniques and instrumentation, 07.20.Ka
High-voltage diodes, 52.59.Mv
High-voltage technology, 84.70.+p
H I shells, 98.58.Nk
Histones, 87.16.Sr
History of science, 01.65.+g
acoustics, *43.10.Mq
Hole burning
atomic spectra, 32.30.-r
condensed matter spectra, 78.40.-q
molecular spectra, 33.20.-t
Hole burning spectroscopy

Hole doped materials (cuprate superconductors), 74.72.Gh

Holograms

computer generated, 42.40.Jv
volume, 42.40.Pa

Holographic optical elements, 42.40.Eq

Holography

acoustical, *43.35.Sx, *43.60.Sx
electron, 61.05.jp
optical, 42.40.-i
recording materials for, 42.70.Ln

Hooke's law

mechanical properties of solids, 62.20.D-

Hopping transport, 72.20.Ee

Hormones, 87.14.Lk

Hot atom reactions, 82.30.Cf

Hot carriers, 72.20.Ht, 73.50.Fq
Hot working, 81.40.Gh

Hubbard model

electronic structure, 71.10.Fd
magnetic ordering (quantized spin model), 75.10.Jm
superconductivity, 74.20.-z

Hubble constant, 98.80.Es

Hubble Space Telescope, 95.55.Fw

Hückel method (atomic and molecular physics), 31.15.bu

Humidity, 92.60.Jq, *92.60.jk

Hybrid integrated circuits

electronic, 85.40.Xx
optical, 42.82.Fv

Hydraulic machinery, 47.85.Kn

Hydraulics, 47.85.Dh

Hydroelasticity, 46.40.JJ

Hydroelectric power

conventional hydropower, 88.60.J-
emerging hydropower technologies, 88.60.N-
hydroturbines, 88.60.K-

Hydrogen

21-cm lines
burning in stars, 26.20.Cd
fuel in advanced vehicles, 88.85.mh
fuel from biomass, 88.20.fn
isotopes, 67.63.-r, 67.80.F-
solid, 67.80.F-

Hydrogen-antihydrogen quasimolecules, 31.30.jz

Hydrogen bonding

in biomolecules, 87.15.Fh
in chemical reactions, 82.30.Rs
in molecules, 33.15.Fm

Hydrogen in fuel cell technology

corrosion protection (in hydrogen energy systems), 88.30.Nn
fuel cells

Hydrography, 92.10.Yb

Hydrology, 92.40.-t

Hydromagnetic plasma instability, 52.35.Py

Hydrometeorology, 92.40.-l

Hydrophilic effects, 82.30.Rs

Hydrophones, *43.38.Pf

Hydrosphere

chemical composition, *91.67.gh

Hydrostatics, 47.85.Dh

Hydrothermal systems

geochemistry of, 91.67.Jk
oceanography, 92.05.Lf
volcanology of, 91.40.Ge

Hygrometry, 07.07.Vx

Hyperfine interactions, 31.30.Gs

Hyperfine structure

atoms, 32.10.Fn
molecules, 33.15.Pw

Hypernuclei, 21.80.+a

Hyperonic atoms and molecules, 36.10.Gv

Hyperon-induced reactions, 25.80.Pw

Hyperon-nucleon reactions, 13.75.Ev

Hyperons, 14.20.Jn

Hypersonic flows, 47.40.Kj

Hyperspherical methods (atomic physics), 31.15.xj

Hysteresis

in ferroelectricity, 77.80.Dj
in magnetism, 75.60.-d

I

Ice

atmospheric, 42.68.Ge
rheology of, 83.80.Nb
sea, 92.10.Rw, *92.40.vx
Icebergs, 92.40.Vq, *92.40.vr

ICR plasma heating, 52.50.Qt

Image convertors, 42.79.Ls

Image forming, 42.30.Va

atmospheric optics, 42.68.Sq

Image intensifiers, 42.79.Ls

Image processing

algorithms, 07.05.Pj
in astronomy, 95.75.Mn
flow visualization, 47.80.Jk
in medical imaging, 87.57.C-, 87.57.N-
in optics, 42.30.-d

Image reconstruction

in medical imaging, 87.57.nf
in optics, 42.30.Wb

Imaging detectors

in astronomy, 95.55.Aq
optical devices, 42.79.Pw

Immune system diseases, 87.19.xw

Impedance

acoustic, *43.20.Rz, *43.28.En
electrical, 84.37.+q

Implosions, inertial confinement, 52.57.Fg

Impurities

absorption spectra of, 78.40.-q
in crystals, 61.72.S-
diffusion of, 66.30.J-
effects on superconductivity, 74.62.Dh

Electronic structure, 71.55.-i
EPR spectra, 76.30.-v
implantation, 61.72.uf, 61.72.uj, 61.72.up

magnetic, 75.30.Hx
in plasma, 52.25.Vy
in solid 3He, 67.80.dj
in solid surfaces and solid-solid interfaces, 68.35.Dv
in superfluid 3He, 67.30.hm
in thin films, 68.55.Ln

Inclusions, 61.72.Qa

Incommensurate solids, 61.44.Fw

Indian Ocean, 93.30.Nk

INDO calculations, 31.15.bu

Inductance measurement, 84.37.+q

Inductors, 84.32.Hh

Industry

energy use in, 88.05.Vx
laser applications in, 42.62.Cf
material processing flows in, 47.85.M-
research and development, 89.20.Bb

Inelastic scattering
Internal friction
evidence of dislocations by, 61.72.Hh
mechanical properties of solids, 62.40.+i
International laboratory facilities, 01.52.+r
International programs, geophysics, 93.55.+z
Internet, *43.10.Pr, 89.20.Hh
Interplanetary dust and gas, 96.50.Dj
Interplanetary space
cosmic rays, 96.50.Js

driver gases and magnetic clouds, 96.50.Uv
energetic particles, 96.50.Vg
neutral particles, 96.50.Zc
pickup ions, 96.50.Ya
solar wind plasma, 96.50.Ci
Interpolation methods, 02.60.Ed
Interstellar matter
external galaxies, 98.58.-w
Milky Way, 98.38.-j
Intracluster matter (galaxy clusters), 98.65.Hb
Intramolecular dynamics, 33.15.Hp
Inverse photoemission spectroscopy, 78.70.-g
Inverse problems, 02.30.Zz
acoustical, *43.60.Pt
Inversion layers, 73.20.-r, 73.40.-c
Inviscid flows, 47.15.K-
Inviscid instability, 47.20.Cq
Io, 96.30.lb
Ion-acoustic waves (plasma), 52.35.Fp, 52.35.Qz
Ion beam-assisted deposition, 81.15.Jj
Ion beam epitaxy, 81.15.Hi
Ion beam lithography, 85.40.Hp
Ion beams
negative, 41.75.Cn
positive, 41.75.Ak
Ion channeling
crystals, 61.85.+p
in subcellular transport processes, 87.16.Vy
Ion-cyclotron resonance plasma heating, 52.50.Qt
Ion-cyclotron waves (plasma), 52.35.Hr, 52.35.Qz
Ion emission
by liquids and solids, general and overall aspects of, 79.00.00
new topics in, 79.90.+b
secondary, 79.20.Rf
Ion exchange
biological systems, 82.39.Wj
chromatography, 82.80.Bg
resins, 83.80.-k
Ion conduction
in liquids, 66.10.Ed
nonmetals, 66.30.H-
solids, 66.30.Dn
Ionic interactions, atmospheric, 92.60.Ls
Ion implantation
germanium and silicon, 61.72.af
III-V and II-VI semiconductors, 61.72.uj
plasma-based, 52.77.Dq
thin films, 68.55.Ln
VLSI technology, 85.40.Ry
Ionization
of atoms
field, 79.70.-q
of molecules
in photochemistry, 82.50.-m
in plasma, 52.25.Jm
Ionization chambers, 29.40.Cs
Ionization potentials
atoms, 32.10.Hq
molecules, 33.15.Ry
Ionizing radiations
effects on biological systems, 87.53.-j
Ion microscopes, 07.78.+s
in structure determination, 68.37.Vj
Ion-molecule collisions, 34.50.-s
Ion-molecule reactions, 82.30.Fi
Ionoluminescence, 78.60.Hk
Ion optics, 41.85.-p
Ionosphere
Earth, 94.20.-y
fluid planets, 96.15.Hy, *96.15.hk
instrumentation for, 94.80.+g
Ion plating, 81.15.Jj
Ion propulsion, 52.75.Di
Ion rings (magnetic confinement), 52.55.Lf
Ions
atomic
in cavities, 37.30.+i
molecular
surface neutralization, 34.35.-a
Ion scattering, 34.50.-s
in structure determination, 61.05.Np
from surfaces, 34.35.+a, 68.49.St, 79.20.Rf
Ion sources, 07.77.Ka
in nuclear physics, 29.25.Lg, 29.25.Ni
Ion spectrometers, 07.81.+a
Ion-surface impact, 34.35.+a, 79.20.Rf
Ion traps, 37.10.Ty
Iron and its alloys, ferromagnetism of, 75.50.Bb
Irradiation effects
on instruments, 07.89.+b
on optical devices, 42.88.+h
in solids, 61.80.-x
Irreversible thermodynamics, 05.70.Ln
Irrigation, 92.40.Xx
I sing model
lattice theory, 05.50.+q
magnetic ordering, 75.10.Hk
Islands, geographical regions, 93.30.Kh
Isobaric analog resonances, 24.30.Gd
Isobaric spin, 21.10.Hw
Isomer decay (radioactive decay), 23.35.+g
Isomerism
of biomolecules, 87.15.hp
macromolecules and polymer molecules, 36.20.Ey
rotational, 33.15.Hp
Isomerization reactions, 82.30.Qt
Isostasy
crustal movements, 91.45.Ga
in marine geology, 91.50.Kx
Isotope effects
atoms and molecules, 31.30.Gs
chemical reactions, 82.20.Tr
Isotopes, 32.10.Bi
abundances and evolution (astronomy), 98.80.Ft
of hydrogen, 67.63.-r, 67.80.F-
radioactive, sources of, 29.25.Rm
separation and enrichment, 28.60.+s
Isotopic dating (geochronology), *91.80.Hj
J
Jahn-Teller effect
in atoms and molecules, 31.30.-i
in condensed matter, 71.70.Ej
Jets
galactic, 98.62.Nx
interstellar matter, 98.38.Fs, 98.58.Fd
in laminar flows, 47.15.Uv
in large-Q2 scattering, 13.87.-a
oceanic, 92.10.Ty
through nozzles, 47.60.Kz
in turbulent flows, 47.27.wg
Joining, 81.20.Vj
Josephson devices, 85.25.Cp
Josephson effect
quantum mechanics, 03.75.Lm
tunneling phenomena (superconductivity), 74.50.+r
Josephson junction arrays, 74.81.Fa
Joule-Thomson effect, 51.30.+i
Jovian satellites, 96.30.Kf
Junction breakdown devices, 85.30.Mn
Junction diodes, 85.30.Kk
Jupiter, 96.30.Kf
Jovian satellites, 96.30.L-
Jurassic period, *91.70.de

K
Kaluza-Klein theory (higher-dimensional gravity), 04.50.Cd
Kaluza-Klein excitations (particle physics), 14.80.Rt
Kaon-baryon interactions, 13.75.Jz
Kaon decays hadronic, 13.25.Es
leptonic and semileptonic, 13.20.Eb
Kaon-induced reactions and scattering, 25.80.Nv
KDP crystals (dielectric materials), 77.84.Fa
Kelvin-Helmholtz instability (fluid flow), 47.20.Ft
Kelvin waves (ocean waves), *92.10.hh
Kerr effect atoms and molecules, 33.57.+c
condensed matter, 78.20.Jq
nonlinear optics, 42.65.Hw
Kinematics of deformation and flow, 83.10.Bb
of particles, 45.50.-j, 83.10.Pp
rotational, 45.40.-f
translational, 45.40.Aa
Kinetic modes (magnetic confinement), 52.55.Tn
Kinetic theory gases, 47.45.-Ab, 51.10.+y
plasma, 52.25.Dg
statistical mechanics, 05.20.Dd
Klystrons, 84.40.Fe
Knight shift, 76.60.Cq
Knot theory, 02.10.Kn
Knudsen flow, 47.45.-n
Kobayashi-Maskawa matrix, 12.15.Hh
Kondo effect diamagnetism and paramagnetism, 75.20.Hr
electronic conduction in metals and alloys, 72.15.Qm
electronic transport, theory of, 72.10.Fk
Kondo lattice, 75.30.Mb
Kosterlitz-Thouless transition liquid crystals, 64.70.uf
magnetic systems, 75.30.Kz
Krönig-Penney model, 71.15.Ap
Kuiper belt, 96.30.Xa
Laboratory computer use in, 01.50.Lc
course design, 01.50.Qb
experiments and apparatus, 01.50.Pa
procedures, 06.60.-c
Laboratory facilities, national and international, 01.52.+r
Laboratory-scale study of astrophysical-plasmas, 52.72.+v
Lagrangian mechanics, 45.20.Jj
Lagrangians chiral (quark models), 12.39.Fe
field theory, 11.10.Ef
general relativity, 04.20.Fy
Lakes, 92.40.Qk, *92.40.jg
Lamallipods, 87.16.Qp
Lamb shift, 31.30.jf
in muonic hydrogen and deuterium, 31.30.jr
Lamellae, 82.70.Uv
Laminar flows, 47.15.-x, 83.50.-v
inviscid, 47.15.K-
Laminar to turbulent transition, 47.15.Fe, 47.27.Cn
Landau levels, 71.70.Di
Landslides, 92.40.Ha
Land transportation, 89.40.Bb
Langevin method, 05.10.Gg
Langmuir-Blodgett films deposition of, 81.15.Lm
on liquids, 68.18.-g
liquid thin film structure, 68.18.Fg
phase transitions in, 68.18.Jk
on solids, 68.47.Pe
Laplace equation, 41.20.Cv
Larynx, 43.70.Gr
Laser ablation laser-plasma interactions, 52.38.-r
of solids, 79.20.Eb
Laser beam annealing, 61.80.Ba
Laser beam machining, 42.62.Cf
Laser deposition, 81.15.Fg
nanofabrication, 81.16.Mk
Laser diodes, 42.55.Px
Laser Doppler velocimeters, 42.79.Qx
Laser-driven acceleration, 41.75.Jv
Laser imaging, medical, 42.62.Be, 87.63.It
Laser impact phenomena on surfaces, 79.20.Ds
laser ablation, 79.20.Eb
multiphoton absorption, 79.20.Ws
Laser inertial confinement, 52.57.-z
Laser materials, 42.70.Hj
Laser-modified scattering of atoms and molecules, 34.50.Rk
down to electrons, 34.80.Qb
Laser operation continuous, 42.60.Pk
long-pulse, 42.60.Rn
Laser-plasma interactions, 52.38.-r
Laser-produced plasma, 52.50.Jm
Laser radiation characteristics, 42.60.Jf
propagation (atmospheric optics), 42.68.-w
surface irradiation effects, 61.80.Ba
Laser range finders, 06.30.Gv, 42.79.Qx
Lasers, 42.55.-f
applications of, 42.62.-b
general theory of, 42.55.Ah
optical systems for, 42.60.-v
Laser spectroscopy, 42.62.Fi
Laser targets (inertial confinement), 52.57.Bc
Laser velocimeters, 06.30.Gv, 42.79.Qx
Laser velocity, 50.70.Ce, 65.40.G-
Latex rubber, 83.80.Va
Lattice dynamics crystals (see 63)
of solid helium-3, 67.80.de
Lattice fermion models, 71.10.Fd
Lattice gas (fluid dynamics), 47.11.Qr
Lattice gauge theory, 11.15.Ha
Lattice models in biological physics, 87.10.Hk, 87.16.aj
Lattice QCD calculations, 12.38.Gc
Lattice theory and statistics, 05.50.+q
Lattice vibrations statistical mechanics of, 63.70.+h
Lava, 91.40.Hw
Laves phases (superconductivity), 74.70.Ad
Layered structures phonons in, 63.22.Np
semiconductors, III-V
semiconductors, II-VI
Leak detectors (vacuum technology), 07.50.Hd
Learning in education, 01.40.Ha
neuroscience of, 87.19.lv
Least square approximation, 02.60.Ed
Lectures announcements, 01.10.Fb
publications, 01.30.Bb
LEED in structure determination, 61.05.jh
Length measurement, 06.30.Bp
Lenses
- acoustical, *43.58.Ls
- electrostatic, 41.85.Ne
- gravitational, 95.30.Sf
- optical design of, 42.15.Eq
- in optical systems, 42.79.Bh
Lepton-lepton interactions, 13.66.-a
Lepton number, 11.30.Fs
Leptoquarks, 14.80.Sv
Leptons
- beta decay, 23.40.-s
- charged heavy leptons, 14.60.Hi
- decays, 13.35.-r
- electrons, 14.60.Cd
- in decays
- induced nuclear reactions, 25.30.-c
- interactions with hadrons, 13.60.-r
- masses and mixing, 12.15.Ff
- muons, 14.60.Ef
- neutrinos, 14.60.Lm, 14.60.St
- positrons, 14.60.Cd
- production
- properties of, 14.60.-z
- taus, 14.60.Fg
Level crossing
- in atoms, 32.80.Xx
- in molecules, 33.80.Be
Level splitting
- in atoms, 32.60.+i
- in molecules, 33.57.+c
- in solids, 71.70.-d
Levitation, acoustic, *43.25.Uv
Levitation devices
- magnetic, 85.70.Rp
- superconducting, 84.71.Ba
Levy flights, 05.40.Fb
LIDAR, 42.68.Wt, 42.79.Qx
Lie algebra, 02.20.Sv
- Lie groups, 02.20.Tw
Lifetimes
- atomic spectra, 32.70.Cs
- molecular spectra, 33.70.Ca
- nuclear energy levels, 21.10.Tg
Ligand fields, 71.70.Ch
Light
- effects on biological systems, 87.50.W-
- interaction with matter, 42.50.Cf
- mechanical effects on atoms and molecules, 37.10.Vz, 42.50.Wk
- zodiacal, 96.50.Dj
Light absorption and transmission, 42.25.Bs
- effects of atomic coherence on, 42.50.Gy
Light-emitting diodes, 85.60.Jb
Lighting, 52.80.Mg, 92.60.Pw
Light mesons, 14.40.Be
Light pressure, 42.50.Wk
Light quarks, 14.65.Bt
Light scattering
- in atmospheric optics, 42.68.Mj, 92.60.Ta
- in condensed matter, 78.35.+c
- in plasma, 52.25.Os
- wave optics, 42.25.Fx
Light-sensitive materials, 42.70.Gi
Lighting
- day lighting/natural lighting of buildings, 88.40.mx
- energy use in, 88.05.Tg
- outdoor solar lights, 88.40.my
- light sources, 42.72.-g
Limiters, electronic, 84.30.Qi
Limnology, 92.40.Qk, *92.40.qj
Linear accelerators, 29.20.Ej
Line shape and width, 32.70.Jz, 33.70.Jg
Lipids, 87.14.Cc
Liquid crystals
- anchoring, 61.30.Hn
- defects in, 61.30.Jf
- dielectric properties of, 77.84.Nh
- displays, 42.79.Kr
- flow of, 47.57.Lj
- glass transitions in, 64.70.pp
- microconfined, 61.30.Pq
- in optical devices, 42.79.Kr
- optical materials, 42.70.Df
- optical properties of, 78.15.+e
- orientation of, 61.30.Gd
- phase transitions in, 64.70.M-pol
er, 61.30.Vx
- polymer dispersed, 61.30.Pq
- rheology of, 83.80.Xz
- structure of, 61.30.Cz, 61.30.Eb
Liquid drops, 47.55.D-
Liquid helium, see 67
Liquid-liquid transitions, 64.70.Ja
Liquid metals and alloys
- electrical and thermal conduction, 72.15.Cz
- electronic structure, 71.22.+i
- structure of, 61.25.Mv
Liquid-phase epitaxy, 81.15.Lm
Liquids
- acoustical properties, 62.60.+v
- associated, 61.20.Qg
- dielectric properties, 77.84.Nh, 77.22.-d
- diffusion in, 66.10.C-
- diffusive momentum transport in, 66.20.Gd
- electric discharge in, 52.80.Wq
- glass transitions in, 64.70.pm
- heat capacities, 65.20.Jk
- high pressure effects, 62.50.-p
- infrared spectra, 78.30.C-
- ionic conduction in, 66.10.Ed
- magnetic, 75.50.Mm
- mass diffusion in, 66.10.cg
- mechanical properties, 62.10.+s
- metallic
- molecular
- noble gas
- nonmetallic
- osmosis in, 66.10.cg
- photoluminescence, 78.55.Bq
- Raman spectra, 78.30.C-
- structure of, 61.20.-p, 61.25.-f
- ultraviolet spectra, 78.40.Dw
- viscosity of, 66.20.-d
- visible spectra, 78.40.Dw
Liquid semiconductors
- conductivity, 72.80.Ph
- electron density of states, 71.22.+i
- Liquid-solid transitions, 64.70.D-
- Liquid thin films, 68.15.+e, 68.18.-g
- Liquid-vapor transitions, 64.70.F-
- Lithography
- in integrated electronics, 85.40.Hp
- in integrated optics, 42.82.Cr
- nanolithography, 81.16.Nd
- subwavelength, 42.50.St
Lithosphere
- rheology of, 91.32.De
- seismology of, 91.30.Wx
- Local-density approximation
- atomic and molecular physics, 31.15.E-
- condensed matter, 71.15.Mb
- Local group, 98.56.-p
- Localization
- conductivity in metals and alloys, 72.15.Rn
- disordered structures, 71.23.-k, 71.55.Jv
- mobility edges, 72.20.Ee
- sound sources, *43.66.Qp
- surface and interface states, 73.20.Fz
- weak, 72.15.Rn, 73.20.Fz
- Localized modes, 63.20.Pw
Locomotion (motor systems), 87.19.lu
Logic, mathematical, 02.10.Ab
Logic devices
optical, 42.79.Ta
superconducting, 85.25.Hv
Lorentz invariance, 11.30.Cp
Lorentz transformation, 03.30.+p
Loudspeakers, *43.38.Ja
Low-dimensional structures
devices, 85.35.Be
electrical properties, 73.63.-b
electron states and collective excitations in, 73.21.-b
optical properties, 78.67.-n
phonons in, 63.22.-m
structure and nonelectronic properties of, 68.65.-k
superconducting, 74.78.-w
Low energy electron diffraction (LEED), 61.05.jh
Low energy electron microscopy, 68.37.Nq
Low mass nuclear reactions, 25.10.+s
Low temperature techniques, 07.20.Mc
LSI, 85.40.-e
Lubrication
effects of materials treatment, 81.40.Pq
flows, 47.85.mf
rheology, 83.50.-v
Luminescence
of atoms, 32.50.+d
of biomolecules, 87.15.mq
cathodoluminescence, 78.60.Hk
chemiluminescence, 78.60.Ps
electroluminescence, 78.60.Fi
ionoluminescence, 78.60.Hk
optically stimulated, 78.60.Lc
sonoluminescence, 78.60.Mq
thermoluminescence, 78.60.Kn
triboluminescence, 78.60.Mq
of molecules, 33.50.-j
photoluminescence
Luminosity
galaxies, 98.62.Qz, 98.62.Ve
stars, 97.10.Ri, 97.10.Xq
Lunar probes, 95.55.Pe
Lungs, hemodynamics of, 87.19.ug
Luttinger liquid, 71.10.Pm
superconductivity, 74.20.Mn
Lyman forest (quasars), 98.62.Ra
Lyotropic phases, 61.30.St
M
Machining
materials processing, 81.20.Wk
micromachining
workshop techniques, 06.60.Vz
Mach number, 47.40.-x
Macromolecules
biological, 87.15.-v
liquid solutions, properties of, 87.15.N-
liquid solutions, structure of, 61.25.H-
properties of, 36.20.-r
Macroscopic quantum tunneling (magnetic systems), 75.45.+j
Magellanic stream, 98.56.Tj
Magma
migration, 91.40.Ik
rheology, 83.80.Nb
Magnesium diboride, superconductivity of, 74.70.Ad
Magnetic aftereffects, 75.60.Lr
Magnetic anisotropy, 75.30.Gw
Magnetic annealing, 75.60.Nt
Magnetic bubbles, 75.70.Kw
Magnetic circular dichroism
in biophysics, 87.64.Ku
in condensed matter, 78.20.Ls
of molecules, 33.55.+b
Magnetic confinement and equilibrium, 52.55.-s
Magnetic cooling
cryogenics, 07.20.Mc
magnetocaloric effect, 75.30.Sg
Magnetic coordinate systems, 94.30.Bg
Magnetic cores, 85.70.-w
Magnetic devices, 85.70.-w
spin polarized transport devices, 85.75.-d
Magnetic domains, 75.60.Ch
in thin films, 75.70.Kw
in nanoparticles, 75.75.Fk
Magnetic fields
astronomical observations of, 95.85.Sz
of comets, 96.25.Ln
effects on biological systems, 87.50.C-
effects on material flow, 83.60.Np
in electromagnetism, 41.20.-q
of external galaxies, 96.25.Gn
generation of, 07.55.Db
interplanetary, 96.50.Bh
lunar, 96.20.Jz
magnetospheric, 94.30.Ms
measurement of, 07.55.Ge
of Milky Way, 98.35.Eg
planetary
solar, 96.60.Hv
stellar, 97.10.Ld
terrestrial, 91.25.-r
Magnetic films
devices, 85.70.Kh
properties of, 75.70.-i
Magnetic fluids, 47.65.Cb
Magnetic force microscopy, 68.37.Rt
instrumentation of, 07.79.Pk
Magnetic heads, 85.70.Kh
Magnetic hysteresis, 75.60.-d, 75.60.Ch, 75.60.Nt
Magnetic impurity interactions, 75.30.Hx
Magnetic induction, 41.20.Gz
Magnetic instruments, 07.55.-w
Magnetic lenses, 41.85.Lc
Magnetic levitation devices, 85.70.Rp
superconducting magnets, 84.71.Ba
Magnetic liquids, 47.65.Cb, 75.50.Mm
Magnetic logic, reprogrammable, 85.75.Ff
Magnetic materials, 75.50.-y
amorphous magnetic materials, 75.50.Kj
antiferromagnetic materials, 75.50.Ee
ferrimagnetic materials, 75.50.Gg
ferromagnetic materials
high coercivity materials, 75.50.Vv
magnetic liquids, 75.50.Mm
magnetic recording materials, 75.50.Ss
magnetic semiconductors, 75.50.Pp
magnetotransport materials, 75.47.-m
multiferroics, 75.85.+t
nanocrystalline magnetic materials, 75.50.Tt
new topics in, 75.90.+w
Magnetic memory
using giant magnetoresistance, 85.75.Bb
using magnetic tunnel junctions, 85.75.Dd
Magnetic mirrors, 52.55.Jd
Magnetic moments
of atoms, 32.10.Dk
of hadrons, 13.40.Em
local, in compounds and alloys, 75.20.Hr
magnetometers for, 07.55.Jg
of molecules, 33.15.Kr
Magnetic monopoles, 14.80.Hv
Magnetic multilayers, 75.70.Cn
Magnetic nanoparticles
domain structures in, 75.75.Fk
dynamics of, 75.75.Jn
electronic structure of, 75.75.Lf
Magnetic ordering
general theory and models of, 75.10.-b
electronic transport in, 73.23.-b, 73.63.-b
electron states and collective excitations in, 73.21.-b
optical properties of, 78.67.-a
structure and nonelectronic properties of, 68.65.-k
superconducting, 74.78.Na
Mesosphere, 92.60.hc
Mesozoic period, *91.70.D-, 91.70.Dh
Metal-based composites, 81.05.Ni
Metal-insulator-metal structures, 73.40.Rw
Metal-insulator-semiconductor structures, 73.40.Qv
Metal-insulator transition, 71.30.+h
Metallic glasses
electronic structure of, 71.23.Cq
synthesis of, 81.05.Kf
Metal-metal contacts, 73.40.Jn
Metal-nonmetal contacts, 73.40.Ns
Metals
amorphous (transport properties), 72.15.Cz
band structure of, 71.20.Be, 71.20.Dg, 71.20.Eh, 71.20.Gj
diamagnetism and paramagnetism in, 75.20.En
impurity and defect absorption in, 78.40.Kc
impurity and defect levels in, 71.55.Ak
infrared spectra, 78.30.Er
liquid
mass renormalization in, 71.38.Cn
in material science, 81.05.Bx
materials for magnetotransport, 75.47.Np
metallic surfaces, 68.47.De
nonelectronic thermal conduction in, 66.70.Df
phase diagrams of, 81.30.Bx
photoemission and photoelectron spectra, 79.60.Bm
radiation effects on, 61.82.Bg
Raman spectra of, 78.30.Er
self-diffusion in, 66.30.Fq
spin polarized transport in, 72.25.Ba
structure of
superconducting, 74.70.Ad
surface structure of, 68.35.bd
thin films
transport processes in, 72.15.-v
visible and ultraviolet spectra of, 78.40.Kc
Metal-semiconductor-metal structures, 73.40.Sx
Metal vapor lasers, 42.55.Lt
Metamagnetism, 75.30.Kz
Metamaterials, 81.05.Xj, 78.67.Pt
Metastable phases, 64.60.My
Meteorites, 96.30.Za
Meteorological factors
in acoustical noise propagation, *43.50.Vt
in atmospheric optics, 42.68.Bz, 42.68.Ge, 42.68.Jg
in atmospheric sound, *43.28.Fp
Meteorology, 92.60.-e
hydrometeorology, 92.40.Zg
polar, 92.60.Uy
tropical, 92.60.Ox
volcanic effects, 92.60.Zc
Meteors, 96.30.Za
meteoir-trail physics, 94.20.Xa
Methane
as natural gas fuel for advanced vehicles, 88.85.mf
from landfills, 88.20.dv
fuel from biomass, 88.20.fq
methane production
Methanol (fuel from biomass), 88.20.fg
Metrology, 06.20.-f
laser applications, 42.62.Eh
MHD modes (magnetic confinement), 52.55.Tn
Micelles, 82.70.Uv
reactions in, 82.33.Nq
rheology of, 83.80.Qr
Microwave double resonance spectroscopy, 33.40.+f
Microwave radiation
effects on biological systems, 87.50.S-
interactions with condensed matter, 78.70.Gq
in plasma, 52.25.Os
plasma heating by, 52.50.St
receivers and detectors, 07.57.Kp
sources of, 07.57.Hm
therapeutic applications, 87.50.ux
wave propagation, 41.20.Jb, 84.40.-x
Microwave spectrometers, 07.57.Pt
Microwave technology, 84.40.-x
Microwave tubes, 84.40.Fe
Mid-ocean ridges
geochemical processes in, *91.67.ff
in marine geology, 91.50.Rt
seismology of, 91.30.Hc
in volcanology, 91.40.St
Mie scattering, 42.25.Fx, 42.68.Mj
Military technology, 89.20.Dd
Milky Way, 98.35.-a
Microelectromechanical systems (MEMS), 85.85.+j
in biomedical engineering, 87.85.Ox
flows in, 47.61.Fg
Microelectronics, 85.40.-e
superconducting circuits, 85.25.Hv
vacuum, 85.45.-w
Microemulsions
complex fluids, 47.57.jb
interfacial properties of, 68.05.Gh
Microgels (rheology), 83.80.Kn
Microgravity environments
for crystal growth, 81.10.Mx
materials testing in, 81.70.Ha
Microlensing techniques (astronomy), 95.75.De
Micromachining
in biomedical engineering, 87.85.Va
in microelectronics, 85.40.Hp
Micromanipulators
in biophysics and biomedical engineering, 87.80.Fe, 87.85.Uv
Micrornasers, 42.50.Pq
Micromechanical devices, 07.10.Cm
Micromixing (micro- and nanoscale flow), 47.61.Ne
Microorganisms
bacterial diseases, 87.19.xb
in sea water, 92.20.Jt, *92.20.jb
swimming of, 47.63.Gd
Microparticles
magnetic materials, 75.50.Tr
optical properties of, 78.66.Vs
Microphones, 43.38.Kb
Microscopy
acoustical, *43.35.Sx, *43.58.Ls
atomic force
electron
field-ion and field emission
friction force, 07.79.Sp
magnetic force
optical
scanning tunneling
x ray
Microstructure
crystals, 61.72.-y
liquid crystals, 61.30.Cz
materials treatment effects on, 81.40.-z
by solidification, 81.30.-t
Microtubules
in subcellular structure and processes, 87.16.Ka
Microwave circuits, 84.40.Dc
integrated, 84.40.Lj
Microwave double resonance spectroscopy, 33.40.+f
Microwave optical double resonance spectroscopy, 33.40.+f
Microgravity environments
for crystal growth, 81.10.Mx
materials testing in, 81.70.Ha
Microlensing techniques (astronomy), 95.75.De
Micromachining
in biomedical engineering, 87.85.Va
in microelectronics, 85.40.Hp
Micromanipulators
in biophysics and biomedical engineering, 87.80.Fe, 87.85.Uv
Micrornasers, 42.50.Pq
Micromechanical devices, 07.10.Cm
Micromixing (micro- and nanoscale flow), 47.61.Ne
Microorganisms
bacterial diseases, 87.19.xb
in sea water, 92.20.Jt, *92.20.jb
swimming of, 47.63.Gd
Microparticles
magnetic materials, 75.50.Tr
optical properties of, 78.66.Vs
Microphones, 43.38.Kb
Microscopy
acoustical, *43.35.Sx, *43.58.Ls
atomic force
electron
field-ion and field emission
friction force, 07.79.Sp
magnetic force
optical
scanning tunneling
x ray
Microstructure
crystals, 61.72.-y
liquid crystals, 61.30.Cz
materials treatment effects on, 81.40.-z
by solidification, 81.30.-t
Microtubules
in subcellular structure and processes, 87.16.Ka
Microwave circuits, 84.40.Dc
integrated, 84.40.Lj
Microwave optical double resonance spectroscopy, 33.40.+f
Microwave radiation
effects on biological systems, 87.50.S-
interactions with condensed matter, 78.70.Gq
in plasma, 52.25.Os
plasma heating by, 52.50.St
receivers and detectors, 07.57.Kp
sources of, 07.57.Hm
therapeutic applications, 87.50.ux
wave propagation, 41.20.Jb, 84.40.-x
Microwave spectrometers, 07.57.Pt
Microwave technology, 84.40.-x
Microwave tubes, 84.40.Fe
Mid-ocean ridges
geochemical processes in, *91.67.ff
in marine geology, 91.50.Rt
seismology of, 91.30.Hc
in volcanology, 91.40.St
Mie scattering, 42.25.Fx, 42.68.Mj
Military technology, 89.20.Dd
Milky Way, 98.35.-a
quantum, 42.50.Lc
superconductivity fluctuations, 74.40.De
turbulence-generated, 47.27.Sd
Nondestructive testing
of materials, 81.70.-q
in structural acoustics, *43.40.Le
Nonequilibrium processes
chemical reaction kinetics, 82.40.Bj
gas dynamics, 47.70.Nd
in superconductivity, 74.40.Gh
thermodynamics, 05.70.Ln
Non-Fermi-liquid ground states, 71.10.Hf
Nonhomogeneous flows, 47.55.-t
Nonlinear acoustics, *43.25.-x, 43.25.+y
Nonlinear deformation
nucleon distribution, 21.10.Gv
Nuclear physics aspects of, 26.50.+x
nucleosynthesis in, 26.30.-k
Nozzle flow, 47.60.Kz
(α,p) reactions, 25.40.Kv
(N,α) and (N,3He), reactions, 25.40.Hs
Nuclear astrophysics
Big Bang nucleosynthesis, 26.35.+c
cosmic ray nucleosynthesis, 26.40.+r
hydrostatic stellar nucleosynthesis, 26.20.-f
nuclear matter aspects of neutron stars, 26.60.-c
nucleosynthesis in novae and supernovae, 26.30.-k
solar neutrinos, 26.65.+t
Nuclear binding energy, 21.10.Dr
Nuclear charge, 21.10.Ft
Nuclear Coulomb effects, 21.10.Sf
Nuclear data analysis, 29.30.+d, 33.50.-j
Nuclear deformation
nucleon distribution, 21.10.Gv
Nuclear fission, 24.75.+i, 25.85.-w
Nuclear fission power, 89.30.Gg
Nuclear forces, 21.30.-x
Nuclear test sites, 24.80.+y
Nuclear giant resonances, 24.30.Cz
Nuclear hole states, 21.10.Pc
Nuclear magnetic resonance (NMR)
in biophysics, 87.64.kj, 87.80.Lg
in chemical physics, 82.56.-b
in condensed matter, 76.60.-k
defect structure determinations by, 61.72.Hh
in molecules, 33.25+k
in structure determination, 61.05.Qr, 82.56.Ub
in superconductors, 74.25.nj
Nuclear mass, 21.10.Dr
Nuclear matter, 21.65.-f
asymmetric matter, 21.65.Cd
equations of state, 21.65.Ma
mesons in, 21.65.Jk
neutron matter, 21.65.Cd
quark matter, 21.65.Qr
Nuclear models, 21.60.-n
cluster models, 21.60.Gx
collective models, 21.60.Ev
shell model, 21.60.Cs
Nuclear moments, 21.10.Ky
Nuclear morphologies
in subcellular structure and processes, 87.16.Zg
Nuclear orientation devices, 29.30.Lw
Nuclear Overhauser effect, 33.35.+r
Nuclear parity, 21.10.Hw
Nuclear power
nuclear reactors
Nuclear properties, 21.10.-k
binding energies, 21.10.Dr
charge distribution, 21.10.Ft
nucleon distribution and halo features, 21.10.Gv
of specific nuclei (see 27)
spin and parity, 21.10.Hw
Nuclear quadrupole resonance
in condensed matter, 76.60.Gv
in molecules, 33.25+k
Nuclear reactions
2H-induced reactions, 25.45.-z
3H-, 3He -, and 4He - induced reactions, 25.55.-e
antineutron-induced, 25.43.+t
direct, 24.50.+g
fission reactions
fusion-fission reactions, 25.70.Jj
fusion reactions
heavy-ion reactions
involving few nucleons, 25.10.+s
lepton-induced, 25.30.-c
meson- and hyperon-induced, 25.80.-e
models of, 24.10.-i
nucleon-induced, 25.40.-h
photonuclear reactions, 25.20.-x
polarization in, 24.70.+s
resonance reactions, 24.30.-v
surrogate reactions, 24.87.+y
unstable-nuclei-induced, 25.60.-t
Nuclear reactors
fission reactors, 28.41.-i
types of
fusion reactors, 28.52.-s
Nuclear shell model, 21.60.Cs
Nuclear tests of fundamental interactions and symmetries, 24.80.+y
Nuclear wastes
waste disposal, 28.41.Kw
Nucleation
chemical thermodynamics of, 82.60.Nh
in crystal growth, 81.10.Aj
in film growth, 68.55.A-
in phase transitions, 64.60.Q-
Nucleic acids, 87.14.G-
DNA, 87.14.gk
nucleotides, 87.14.gf
RNA, 87.14.gn
Nucleon decays, 13.30.-a, 14.20.Dh
Nucleon distribution (nuclear structure), 21.10.Gv
Nucleon-hyperon interactions, 13.75.Ev
Nucleon-induced reactions, 25.40.-h
Nucleon-kaon interactions, 13.75.Jz
Nucleon-meson interactions, 13.75.Cs, 13.85.-t
Nucleon-pion interactions, 13.75.Gx, 13.85.-t
Nucleons, 14.20.Dh
Nucleosynthesis
Big Bang, 26.35.+c
cosmic ray, 26.40.+r
in cosmology, 98.80.Ft
in late stellar evolution, 26.20.Np
stellar, 97.10.Cv
Nucleotides, 87.14.gf
Nucleus, compound
in heavy-ion reactions, 25.70.Gh
statistical theory of, 24.60.Dr
Number theory, 02.10.De
Numerical methods (mathematics), 02.60.-x
O
Obduction zones (tectonophysics), 91.45.Hc
Obliteraries, 01.60.+q, *43.05.Sf
Observatories, 95.45.+i
Occultations, 95.10.Gi
Ocean basin thermometry, *43.30.Qd
Ocean chemistry, *92.20.C-, 92.20.Cm
Ocean drilling, 91.50.Sn
Ocean/Earth/atmosphere interaction, 91.10.Vr
Oceanic crust
chemical composition, *91.67.gf
seismology of, 91.30.Ye
Oceanic plateaus, 91.50.Uv
Oceanographic regions, 93.30.-w
Oceanography
acoustical methods in, *43.30.Pc
circulation and currents, 92.10.A-
coastal, 92.10.Sx
eddies, 92.10.ak
El Nino Southern Oscillation, 92.10.am
jets, 92.10.Ty
overflows, 92.10.Ui
upwelling, 92.10.Zf
Ocean optics, 42.68.Xy
Oceans
chemistry of, *92.20.C-, 92.20.Cm
energy extraction, 92.05.Jn
fine structure and microstructure of, 92.10.Ns
fog, 92.10.Xc
global changes in, 92.70.Iw
long term variability, 92.05.Ek
ocean/atmosphere interactions, 92.60.Cc
optics of, 42.68.Xy
radioactivity, 92.20.Td
sedimentation, 92.20.Vn
Ocean waves, *92.10.H-, 92.10.Hm
capillary waves, *92.10.hd
Kelvin waves, *92.10.hh
Rossby waves, *92.10.hf
tsunamis, *92.10.hl
ODMR, 76.70.Hb
Ohmic contacts, 73.40.Cg
Oil (fossil fuel), 89.30.aj
Oil prospecting, 93.85.Tf
Olfaction (sensory systems), 87.19.lt
One-dimensional conductivity, 72.15.Nj
Oort cloud, 96.50.Hp
Operational calculus, 02.30.Vv
Operator theory, 02.30.Tb
Ophiolites (marine geology), 91.50.Vx
Ophthalmic optics, 42.66.Ct
Optical absorption
in atmosphere, 42.68.Ay, 92.60.Ta
in atoms, 32.30.Jc
in biomolecules, 87.15.M-
in condensed matter, 78.20.Ci
in molecules, 33.20.Kf
in plasma, 52.25.Os
wave propagation, 42.25.Bs
Optical activity
in bulk materials and thin films, 78.20.Ek
in molecules, 33.55.+b
Optical angular momentum (quantum optics), 42.50.Tx
Optical beam splitters, 42.79.Fm
Optical bistability, 42.65.Pc
Optical coatings, 42.79.Wc
Optical collimators, 42.79.Ag
Optical communication systems, 42.79.Sz
Optical computers, 42.79.Ta
Optical constants, 78.20.Ci
Optical cooling and trapping of atoms, 37.10.Jb
in biophysics, 87.80.Cc
of molecules, 37.10.Mn, 37.10.Pq
Optical correlators, 42.79.Hp
Optical couplers, 42.82.Et
fiber-optical, 42.81.Qb
non-fiber-optical, 42.79.Gn
Optical design, 42.15.Eq
Optical devices, 42.79.-e
Optical disks, 42.79.Vb
Optical double-resonance spectroscopy, 33.40.+f
Optical elements, 42.79.-e
Optical fibers, 42.81.-i
fiber networks, 42.81.Uv
Optical filters, 42.79.Ci
Optical frequency converters, 42.79.Nv
Optical frequency synthesizers, 42.62.Eh
Optical instabilities (quantum optics), 42.65.Sf
Optical instruments, 07.60.-j
Optically detected magnetic resonance (ODMR), 76.70.Hb
Optical materials, 42.70.-a
Optical methods in rheology, 83.85.Ei
Optical mixing, 42.65.Hw
Optical models (nuclear reactions), 24.10.Ht
Optical modulators, 42.79.Hp
Optical nutation
in quantum optics, 42.50.Md
in ultrafast spectroscopy, 78.47.jp
Optical processors, 42.79.Hp
Optical properties
of bulk materials and thin films, 78.20.-e
of clusters, 36.40.Vz
of fluid materials, 78.15.+e
of gases, 51.70.+f
dothers, 87.67.Wj
of liquid crystals, 78.15.+e
materials treatment effects on, 81.40.Tv
of multilayers, 78.67.Pt
of nanoscale materials and structures
new topics in, 78.90.+t
of photonic structures, 78.67.Pt
of plasma, 52.70.Kz
of rocks and minerals, 91.60.Mk
of superconductors, 74.25.Gz
of supercritical fluids, 78.15.+e
of superlattices, 78.67.Pt
of surfaces, 78.68.+m
Polishing
  in optical workshop techniques, 42.86.+b
  in surface treatments, 81.65.Ps

Pollution
  atmospheric, 92.60.Sz
  effects on instruments, 07.89.+b
  environmental regulations of, 89.60.Fe
  for measurement of, 07.88.+y
  land (biogeosciences), *91.62.Rt
  marine, 92.20.Ny

Polyatomic molecules, *92.30.Wx

Pollution
  atmospheric, 92.60.Sz
  effects on instruments, 07.89.+b
  environmental regulations of, 89.60.Fe
  for measurement of, 07.88.+y
  land (biogeosciences), *91.62.Rt
  marine, 92.20.Ny

Polyatomic molecules, *92.30.Wx

Polymer blends
  structure of, 61.25.hk

Polymer blends (rheology), 83.80.Tc

Polymer cross linking, 61.25.hp

Polymer-electrolyte fuel cells (PEFC), 82.47.Nj

Polymerization, 82.35.-x
  of biomolecules, 82.35.Pq, 87.15.rp
  of polymer molecules, 36.20.-r

Polymer melts, 83.80.Sg
  structure of, 61.25.hk

Polymer molecules, 36.20.-r

Polymer processing flows, 47.85.md

Potential energy surfaces
  for chemical kinetics, 82.20.Kh
  of excited electronic states, 31.50.Df
  of ground electronic states, 31.50.Bc
  in molecular collisions, 34.20.-b
  surface crossings in, 31.50.Gh

Potential flows, 47.15.km

Potential models, 12.39.Pn

Positron annihilation, 78.70.Bj

Positron-atom interactions, 34.80.-i

Positron beams
  nonrelativistic, 41.75.Fr
  relativistic, 41.75.Ht

Positron emission, 79.20.Mb

Positron emission tomography (PET), 87.57.uk

Positronium, 36.10.Dr
  in chemical reactions, 82.30.Gg
  formation in atomic and molecular collisions, 34.80.Lx
  in electrochemistry, 82.45.Wx

Positron microscopes, 07.78.+s

Positron-molecule interactions, 34.80.-i

Positrons
  properties of, 14.60.Cd
  radiation damage by, 61.80.Fe
  states (electronic structure of solids), 71.60.+z

Positron scattering
  in atomic and molecular collisions, 34.80.Uv
  in nuclear reactions, 25.30.Hm

Posters, educational, 01.50.fh

Powder diffraction
  neutron, 61.05.fm
  x-ray, 61.05.cp

Powder metallurgy, 81.20.Ev

Powders
  processing of, 81.20.Ev
  of superconducting, 74.81.Bd

Power reactors, 28.50.Hw

Power supply circuits, 84.30.Jc

Power systems
  biopower systems, 88.20.M-
  high-current and high-voltage systems, 84.70.+p
  power electronics, 84.30.Jc
  superconducting high-power technology, 84.71.-b
  transmission lines and cables, 84.70.+p

Detector (n,¹) reactions, 25.40.Qa

Precambrian period, *91.70.H-, 91.70.Hm

Precipitation
  of energetic particles (magnetosphere), 94.30.Ny
  hydrology of, *92.40.E-, 92.40.Ea
  in materials synthesis, 81.20.Fw
  in meteorology, 92.60.Jq, *92.60.jf
  of particles (ionosphere), 94.20.Qq
  in phase transformations, 81.30.Mh
  in solidification, 81.30.Mh

Precipitation hardening, 81.40.Cd

Precipitation
  of energetic particles (magnetosphere), 94.30.Ny
  hydrology of, *92.40.E-, 92.40.Ea
  in materials synthesis, 81.20.Fw
  in meteorology, 92.60.Jq, *92.60.jf
  of particles (ionosphere), 94.20.Qq
  in phase transformations, 81.30.Mh
  in solidification, 81.30.Mh

Pressure effects
  on crystal structure, 61.50.Ks
  in materials treatment, 81.40.Vw
  on rocks and minerals, 91.60.Gf
  in solids and liquids, 62.50.-p
  on superconducting transition temperature, 74.62.Fj

Pressure sensors, 07.07.Df

Pressure treatment of materials, 81.40.Vw

Primordial galaxies, 98.54.Kt

Prisms, 42.79.Bh

Probability theory, 02.50.Cw
Quadrupole moments, 21.10.Ky, 33.15.Kr
Quadrupole magnets
Q-switching, 42.60.Gd
Quantum dots
PZT films (dielectric films), 77.55.fg, 77.55.hj
PZT ceramics, 77.84.Cg
Pyrometers, 07.20.Ka
Pyrolysis, 82.30.Lp
Pyroelectric films, 77.55.Kt
Pyroelectric effects, 77.70.+a
Pyroelectric devices, 85.50.-n
Purification (materials), 81.20.Ym
Pumps, vacuum, 07.30.Cy
Pulse sequences in MRI, 87.61.Hk
Pulse sequences, in NMR, 82.56.Jn
Pulse generators, 84.30.Ng
Pulse compression (optical), 42.65.Re
Proximity effects (superconductivity), 74.45.+c
Proteins, 87.14.E-
Protons, properties of, 14.20.Dh
Proton scattering (nuclear reactions)
etic, 25.40.Ep
elastic, 25.40.Cm
Proton-neutron interactions, 13.75.Cs, 13.85.-t
Proton-nucleus reactions, 25.40.-h
Proton-pion interactions, 13.75.Gx, 13.85.-t
Proton-proton interactions, 13.75.Cs, 13.85.-t
Proton-hyperon interactions, 13.75.Ev, 13.85.-t
Proton-reaction capture, 25.40.Lw
Protons, properties of, 14.20.Dh
Proton scattering (nuclear reactions)
elastic, 25.40.Cm
inelastic, 25.40.Ep
Pulsars, 97.60.Gb
Pulse circuits, 84.30.Sk
Pulse compression (optical), 42.65.Re
Pulse generators, 84.30.Ng
Pulse sequences, in NMR, 82.56.Jn
Pulse sequences in MRI, 87.61.Hk
Pump-probe spectroscopy
in femtochemistry, 82.53.Eb, 82.53.Hn
in ultrafast solid state dynamics, 78.47.J-
Pumps, vacuum, 07.30.Cy
Purification (materials), 81.20.Ym
Pyroelectric devices, 85.50.-n
Pyroelectric effects, 77.70.+a
Pyroelectric films, 77.55.Kt
Pyrolysis, 82.30.Lp
Pyrometers, 07.20.Ka
PZT ceramics, 77.84.Cg
PZT films (dielectric films), 77.55.fg, 77.55.hj
Quantum beats
in quantum optics, 42.50.Md
in ultrafast pump/probe spectroscopy, 78.47.jm
Quantum chromodynamics, 12.38.-t
in nuclei, 24.85.+p
Quantum communication, 03.67.Hk
Quantum computation, 03.67.Lx
Quantum cosmology, 98.80.Qc
Quantum critical phenomena (superconductivity), 74.40.Kb
Quantum cryptography, 03.67.Dd
Quantum crystals, 67.80.-s
Quantum dots
devices, 85.35.Be
electronic transport in, 73.63.Kv
electron states and collective excitations in, 73.21.La
fabrication of, 81.07.Ta
magnetic properties of, 75.75.-c
structure and nonelectronic properties of, 68.65.Hb
Quantum electrodynamics (QED)
of cavities (quantum optics), 42.50.Pq
corrections to electronic structure of atoms and molecules, 31.30.J-
in particle physics, 12.20.-m
Quantum ensemble theory, 05.30.Ch
Quantum entanglement, 03.65.Ud
Quantum field theory, 03.70.+k, 11.10.-z
Quantum fluctuations, 42.50.Lc
Quantum fluids
boson degeneracy in, 67.10.Ba
fermion degeneracy in, 67.10.Db
hydrodynamics in, 67.10.Jn
structure and dynamics of, 67.10.Hk
transport processes in, 67.10.Jn
Quantum geometry, 04.60.Pp
Quantum gravity, 04.60.-m
Quantum groups, 02.20.Uw
Quantum Hall effects, 73.43.-f
Quantum information, 03.67.-a
entanglement production, 03.67.Bg
optical implementations, 42.50.Ex
quantum algorithms and protocols, 03.67.Ac
Quantum interference devices
semiconductor, 85.35.Ds
superconducting, 85.25.Dq
Quantum jumps, 42.50.Lc
Quantum localization
in metals and alloys, 72.15.Rn
on surfaces and interfaces, 73.20.Fz
Quantum mechanics, 03.65.-w
optical tests of, 42.50.Xa
Quantum noise, 42.50.Lc
Quantum nonlocality, 03.65.Ud
Quantum optics, 42.50.-p
Quantum phase transitions, 64.70.Tg, 05.30.Rt
Quantum solids
diffusion in, 66.30.Ma
solid 3He, 67.80.D-
solid 4He, 67.80.B-
solid hydrogen, 67.80.F-
supersolids, 67.80.K-
Quantum statistical mechanics, 05.30.-d
of quantum fluids, 67.10.Fj
Quantum tomography, 03.65.Wj
Quantum tunneling
devices, 85.35.Aa
macroscopic in magnetic systems, 75.45.+j
Quantum systems with finite Hilbert space, 03.65.Aa
Quantum wells
devices, 85.35.Be
electronic transport in, 73.63.Hs
electron states and collective excitations in, 73.21.Fg
fabrication of, 81.07.St
magnetic properties of, 75.75.-c
optical properties of, 78.67.De
structure and nonelectronic properties of, 68.65.Fg
Quantum wires
devices, 85.35.Be
electronic transport in, 73.63.Nm
electron states and collective excitations in, 73.21.Hb
fabrication of, 81.07.Vb
optical properties of, 78.67.Lt
structure and nonelectronic properties of, 68.65.La
Quantum Zeno dynamics, 03.65.Xp
Quark confinement, 12.38.Aw
Quark deconfinement, 25.75.Nq
Quark-gluon plasma, 12.38.Mh
phase transitions in, 25.75.Nq
production of, 25.75.Nq
Quark matter
nuclear matter, 21.65.Qr
Quark models, 12.39.-x
Quarkonia
heavy quarkonia, 14.40.Pq
decays of
Quarks
bottom quarks, 14.65.Fy
charmed quarks, 14.65.Dw
fourth generation quarks, 14.65.Jk
in nuclei and nuclear processes, 24.85.+p
light quarks, 14.65.Bt
masses and mixing (electroweak interactions), 12.15.Ff
top quarks, 14.65.Ha
Quartz, optical material, 42.70.Ce
Quartz resonator, 77.65.Fs
Quasars, 98.54.Aj
absorption- and emission-line systems, 98.62.Ra
Quasicrystals
electronic structure of, 71.23.Ft
in magnetic materials, 75.50.Kj
structure of, 61.44.Br
Quasiparticle methods (atomic physics), 31.15.xm
Quenching (fluorescence)
atoms, 32.50.+d
condensed matter, 78.55.-m
molecules, 33.50.Hv
Quenching (thermal), 81.40.Gh
Quantum information
quantum algorithms and protocols, 03.67.Ac
Radiation belts, 94.30.Xy
Radiation chemistry, 82.50.-m
Radiation detectors, 07.60.Dq
Radiopharmaceuticals, 87.57.un
Radiosurgery, 87.53.Ly
Radio telescopes, 95.55.Jz
Radio wave radiation
astronomical observations, 95.85.Bh
effects on biological systems, 87.50.S-
interactions with condensed matter, 78.70.Gq
in plasma, 52.25.Os
in plasma diagnostics, 52.70.Gw
plasma heating with, 52.50.Qt
sources, galactic and extragalactic, 98.70.Dk
wave propagation of, 41.20.Jb, 84.40.-x
Radio wave sources, nonastronomical, 07.57.Hm
Radio wave spectrometers, 07.57.Pt
Radio wave technology, 84.40.-x
Rain, 92.40.Ea, *92.40.eq, *92.60.jf
Raman lasers, 42.55.Ye
Raman scattering, in plasmas, 52.38.Bv
Raman spectra
of disordered solids, 87.50.S-
of fullerenes, 78.70.Na
of insulators, 78.30.Am
of liquids, 78.30.C-
of macro- and polymer molecules, 36.20.Ng
of metals and alloys, 78.30.Er
of molecules, 33.20.Pb
of nonmetallic inorganics, 78.30.Hv
of organic solids, 78.30.Jw
of polymers, 78.30.Jw
of semiconductors
electromagnetic and acoustic fields in, 87.50.-a
equipment for, 87.56.-v
ionizing radiations in, 87.53.-j
treatment strategy in, 87.55.-x
Radiation therapy equipment, 87.56.-v
for beam intensity modifications, 87.56.N-
for collimation, 87.56.J-
radiation sources for, 87.56.B-
Radiation treatment
of materials, 81.40.Wx
in medical physics, 87.55.-x
Radiative capture of nucleons, 25.40.Lw
Radiative corrections
atoms and molecules, 31.30.jf
electromagnetic, 13.40.Ks
electroweak, 12.15.Lk
Radiative flows, 43.25.Qp
Radiative recombination, 78.60.-b
Radiative transfer
in astrophysics, 95.30.Jx
in atmosphere, 42.68.Ay, 92.60.Vb
in heat transfer, 44.40.+a
stellar, 97.10.Ex
Radioactive beams, 29.38.-c
Radioactive dating, 93.85.Np
Radioactive decay. See 23
Radioactive pollution, 89.60.-k
Radioactive sources, 29.25.Rm
in medical physics, 87.50.hg
Radioactive wastes, 28.41.Kw
accelerator-driven transmutation of, 28.65.+a
Radioactivity
methods in exploration geophysics, 93.85.Np
in mineralogy and petrology, 91.65.Dt
oceanic, 92.20.Td
radiogenic isotope geochemistry, 91.67.Qr
Radioastronomy, 95.85.Bh, 95.85.Fm
Radiochemical activation analysis, 82.80.Jp
Radio-frequency spectra
atoms, 32.30.Bv
molecules, 33.20.Bx
Radio galaxies, 98.54.Gr
Radiolysis, 82.50.Kx
Radiometers, 07.60.Dq
Radioisotopes, 87.57.un
Radiosurgery, 87.53.Ly
Radio telescopes, 95.55.Jz
Radio wave radiation
astronomical observations, 95.85.Bh
effects on biological systems, 87.50.S-
interactions with condensed matter, 78.70.Gq
in plasma, 52.25.Os
in plasma diagnostics, 52.70.Gw
plasma heating with, 52.50.Qt
sources, galactic and extragalactic, 98.70.Dk
wave propagation of, 41.20.Jb, 84.40.-x
Radio wave sources, nonastronomical, 07.57.Hm
Radio wave spectrometers, 07.57.Pt
Radio wave technology, 84.40.-x
Rain, 92.40.Ea, *92.40.eq, *92.60.jf
Raman lasers, 42.55.Ye
Raman scattering, in plasmas, 52.38.Bv
Raman spectra
of disordered solids, 87.30.Ly
of fullerenes, 78.30.Na
of insulators, 78.30.Am
of liquids, 78.30.C-
of macro- and polymer molecules, 36.20.Ng
of metals and alloys, 78.30.Er
of molecules, 33.20.Pb
of nonmetallic inorganics, 78.30.Hv
of organic solids, 78.30.Jw
of polymers, 78.30.Jw
of semiconductors
Segregation. See phase separation in granular systems, 45.70.Mg
Seismicity, 91.30.Dk
Seismographs, *43.40.Pb
Seismology, 91.30.-f
  core and mantle, 91.30.Uv
  free oscillations in, 91.30.Fn
  lithosphere, 91.30.Wx
  seismic sources, 91.30.Bi
  transform faults, 91.30.Iv
  underwater acoustics of, *43.30.Ma
  Seismotectonics, *91.45.gd
Selected-area electron diffraction, 61.05.jm
Selenodesy (Moon), 96.20.Jz
Self-assembly, 64.75.Yz
Self-assembly (nanofabrication), 81.16.Dn
Self-consistent field calculations for atoms and molecules, 31.15.xr
  in nuclear structure, 21.60.Jz
  for solids, 71.15.Mb
Self-diffusion
  in liquids (mass diffusion), 66.10.cg
  in metals and alloys, 66.30.Fq
  in nonmetals, 66.30.H-
Self-focusing
  in laser-plasma interactions, 52.38.Hb
  in nonlinear optics, 42.65.Jx
Self-gravitating systems, 04.40.-b
Self-induced transparency, 42.50.Md
Self-organization
  complex systems, 89.75.Fb
  statistical physics, 05.65.+b
  semiclassical modulation (nonlinear optics), 42.65.Jx
  semiclassical theories
    in atomic physics, 31.15.xg
    in gauge fields, 11.15.Kc
    in quantum mechanics, 03.65.Sq
  Semiconductor detectors
    for nuclear physics, 29.40.Wk
    optoelectronic, 85.60.-q
  Semiconductor devices, 85.30.-z
  Semiconductor lasers, 42.55.Px
Semiconductors
  absorption and reflection spectra of, 78.40.Fy
  amorphous (conductivity), 72.80.Ng
  band structure of, 71.20.Mq, 71.20.Nr
  conductivity of, 72.20.-i
  doping of, 61.72.uf, 61.72.uj
  in electrochemistry, 82.45.Vp
  fabrication of, 81.05.Cy, 81.05.Dz, 81.05.Ea, 81.05.Gc, 81.05.Hd
  film growth, 68.55.ag
  impurity levels of, 71.55.-i
  infrared and Raman spectra of, 78.30.Am, 78.30.Fs
  liquid
  magnetic, 75.50.Pp
  nonelectronic thermal conduction in, 66.70.Df
  as nonlinear optical materials, 42.70.Nq
  organic, 81.05.Fb
  phase separation and segregation in, 64.75.Qr
  photoluminescence of, 78.55.-m
  radiation effects in, 61.82.Fk
  semiconductor-electrolyte contacts, 73.40.Mr
  semiconductor-insulator-semiconductor structures, 73.40.Ty
  semiconductor-metal-semiconductor structures, 73.40.Vz
  semiconductor-to-insulator structure, 73.40.Qv
  semiconductor-to-semiconductor contacts, 73.40.-c
  solid-solid transitions, 64.70.kg
  solid surfaces of, 68.47.Fg
  spin polarized transport in, 72.25.Dc
  surface structure of, 68.35.bg, 68.35.bj
  thin films
  Semiconductors, elemental
    band structure of, 71.20.Mq
    conductivity of, 72.80.Cw
    impurity and defect levels in, 71.55.Ak
    infrared and Raman spectra of, 78.55.Ap
    photoluminescence of, 78.55.Ap
    processing of, 81.05.Cy
    thin films
  Semiconductors, III-V
    doping and ion implantation of, 61.72.uj
    electrical conductivity of, 72.80.Ey
    fabrication of, 81.05.Dz
    impurity and defect levels in, 71.55.Gs
    infrared and Raman spectra of, 78.30.Fs
    photoluminescence of, 78.55.Cr
    thin films and layered structures
  Semiconductors, II-VI
    doping and ion implantation of, 61.72.uj
    electrical conductivity of, 72.80.Ey
    fabrication of, 81.05.Bx
    self-diffusion in, 66.30.Fq
    visible and ultraviolet spectra of, 78.40.Kc
Sensors
  biosensors, 87.85.fk
  chemical, 07.07.Df
  electrical, 07.07.Df
  electrochemical, 82.47.Rs
  fiber-optical, 42.81.Pa
  gas, 07.07.Df
  magnetic field, 85.75.Ss
  motion, 07.07.Df
  optical, 42.79.Pw, 42.79.Qx
  pressure, 07.07.Df
  Sensory systems (neuroscience), 87.19.lt
Separated flows, 47.32.Ef
Septa (beam optics), 41.85.Ne
Sequences and series, 02.30.Lt
Servo devices, 07.07.Tw
Set theory, 02.10.Ah
Seyfert galaxies, 98.54.Cm
Shape memory effects
  deformation and plasticity, 62.20.fg
Shear flows
  boundary-free, 47.27.W-
  free layers, 47.15.St
  instability of, 47.20.Ft
  rheological measurements of, 83.85.Vb
  steady (rheology), 83.50.Ax
  wall-bounded, 47.27.N-
  shear modulus, 62.20.de, 81.40.Jj
  shear stress, 83.10.-y
  shear thinning and shear thickening, 83.60.Rs
  shear turbulence, 47.27.nb
  shear waves (fluids), 47.35.De
  shelf processes, 91.50.Cw
  shell model (nuclear structure), 21.60.Cs
  shells
    in structural acoustics, *43.40.Ey
    in structural mechanics, 46.70.De
  shielding (nuclear technology), 28.41.Qb
  shock tubes, 07.35.+k
  shock wave effects
    in solids and liquids, 62.50.Ef
  shock waves, *43.25.Cb, *43.40.Jc
  aeroacoustics, *43.28.Mw
    in chemical reaction kinetics, 82.40.Fp
    in fluid dynamics, 47.40.Nm
Sonar
active systems, *43.30.Vh
passive systems, *43.30.Wi
Sonic boom, *43.28.Mw
Sonography (rheology), 83.85.Ei
Sonoluminescence
in acoustics, *43.35.Hl
in condensed matter, 78.60.Mq
Sonoraphy (rheology), 83.85.Ei
Sonoluminescence
in acoustics, *43.35.Hl
in condensed matter, 78.60.Mq
Sonoluminescence
in condensed matter, 78.60.Mq
Sorption, 68.43.-h
Sound
atmospheric, *43.28.-g, 43.28.+h
effects on biological systems, 87.50.Y-
in fluids, 47.35.Rs
generation and reproduction devices for, 43.38.+n, *43.38.-p
generation by fluid flow, *43.28.Ra
physical effects of, *43.35.-c, 43.35.+d
in plasma, 52.35.Dm
propagation of, *43.20.Bi
recording and reproducing systems for, *43.38.Md, *43.38.Ne,
*43.38.Qg
reflection, refraction, and diffraction of, *43.20.El
reinforcement systems for, *43.38.Tj
in superfluid helium-4, 67.25.dt
velocity, *43.20.Hq
wall transmission through, *43.55.Rg
Soundings, ionospheric, 94.20.Tt
Sound sources
intense, *43.25.Vt
localization of, *43.66.Qp
outdoor, *43.28.Hr
South America, 93.30.Jg
Southern Ocean, 93.30.Qn
Southern Oscillation, 92.10.-c, 92.60.-e
Spaceborne and space-research instruments, 07.87.+v, 95.55.-n
Space-charge-dominated beams (plasmas), 52.59.Sa
Space charge effects (dielectric properties), 77.22.Jp
Space charge-limited devices, 85.30.Fg
Spacecraft
interactions with atmosphere, 94.05.Hk
sheaths and wakes, 94.05.Jq
Space geodetic surveys, 91.10.Fc
Space groups (crystal symmetry), 61.50.Ah
Space plasma, 94.05.-a
radiation processes, 94.05.Dd
solitons in, 94.05.Fg
wave-wave, wave-particle interactions, 94.05.Pt
Spacetime
curved
topology of, 04.20.Gz
Space weather, *94.05.S-, 94.05.Sd
forecasting, 94.05.Sd, *94.05.sx
Solar effects, 94.05.Sd, *94.05.sp
Spallation breeder reactors, 28.50.Ft
Spallation reactions, 25.40.Sc
Sparks, 52.80.Mg
Spatial dimensions, measurement of, 06.30.Bp
Spatial filters, optical, 42.79.Ci
Special relativity, 03.30.+p
Specific heat
of liquids, 65.20.Jk
of magnetic materials, 75.40.-s
of solids, 65.40.Ba, 65.60.+a
of superconductors, 74.25.Bt
Speckles, 42.30.Ms
SPECT, 87.57.ah
Spectral classification, stellar, 97.10.Ri
Spectral filters, 42.79.Ci
Spectral lines
intensity of, 32.70.Fw, 33.70.Fd
shape and shift of, 32.70.Jz, 33.70.Jg
Spectral methods
computational techniques, 02.70.Hm
in fluid dynamics, 47.11.Kb, 47.27.er
Spectral MRI (in neuroscience), 87.19.1f
Spectral sources, electric-discharge, 52.80.Yr
Spectra of biomolecules, 87.15.M-
Spectrochemical analysis, 82.80.Dx, 82.80.Ej, 82.80.Gk, 82.80.Ha
Spectrometers
electron, 07.81.+a
gamma-ray, 07.85.Nc
infrared, 07.57.Ty
ion, 07.81.+a
magnetic resonance, 07.57.Pt
microwave and radiowave, 07.57.Pt
for nuclear physics, 29.30.-h
visible and ultraviolet, 07.60.Rd
x-ray, 07.85.Nc
Spectrophotometry
in astronomy, 95.75.Fg
in chemical analysis, 82.80.Dx
Spectroscopy
in astronomy, 95.55.Qf, 95.75.Fg
in chemical analysis, 82.80.-d in-beam (see 23) instrumentation
laser, 42.62.Fi
of solid state dynamics, 78.47.-p
time resolved spectroscopy
ultrashort spectroscopy 1ps
Speech
perception, *43.71.-k, 43.71.+m
processing, *43.72.-p, 43.72.+q
production, *43.70.-h, 43.70.+i
Spheromaks, 52.55.Ip
Sicules, 96.60.Na
Spin chain models, 75.10.Pq
Spin crossover, 75.30.Ez
Spin density waves, 75.30.Kr
Spin dynamics
of superfluid helium-3, 67.30.hj
Spin echo, 76.60.Lz
Spin fluctuations (superconductivity), 74.20.Mn
Spin foams, 04.60.Pp
Spin glasses, magnetic properties of, 75.50.Lk
Spin-glass models, 75.10.Nr
Spin Hamiltonians, 75.10.Dg
Spin Helionians, 75.10.Dg
Spin-lattice relaxation, 76.60.4s
Spinodal decomposition, 64.75.-g, 81.30.-t
Spin-orbit coupling
atomic, 32.10.Fn, 33.60.+q
in condensed matter, 71.70.Ej
molecular, 33.15.Pw, 33.57.+c
in magnetic thin films, 75.70.Tj
Spin ordering, 75.25.-j
Spinor structure, 04.20.Gz
Spin polarized 3He, 67.30.ep
Spin-polarized transport
field effect transistors, 85.75.Hh
magnetic field sensors, 85.75.Ss
resonant tunnel junctions, 85.75.Mm
Spin pumping, current-driven, 72.25.Pn
Spin transport (magnetoelectronics), 75.76.+j
Spintronics, 85.75.-d
spin transport effects, 75.76.+j
Spin waves, 75.30.Ds
and magnetic critical points, 75.40.Gb
resonance, 76.50.+g
Spiral galaxies, 98.52.Nr, 98.56.Ne
Spoken languages, processing of, *43.71.Sy
Spontaneous symmetry breaking, 11.30.Qc
of gauge symmetries, 11.15.Ex
Sports, physics of, 01.80.+b
Spray coating techniques, 52.77.Fv, 81.15.Rs
s-process (nuclear astrophysics), 26.20.Kn
Sputtering
by atom, molecule, and ion impact, 79.20.Rf
in etching, 81.65.Cl
film deposition by, 81.15.Cd
of dendrites, 68.70.+w
of disordered solids, 61.43.-j
of fractals, 61.43.-j
of fullerenes, 61.48.-c
of galaxies, 98.62.Lv
of glasses, 61.43.Fs
of graphene, 61.48.Gh
irradiation effects on, 61.80.-x
of liquid crystals, 61.30.-v
of liquids, 61.20.-p, 61.25.-f
of multilayers, 68.65.Ac
of nanoparticles, 61.46.Df
of quasicrystals, 61.44.-n
stellar, 97.10.Cv
of superlattices, 68.65.Cd
of thin films, 68.55.-a, 68.55.J-
of whiskers, 68.70.+w
Structures, mechanical, 46.70.-p
Subcellular structure and processes, 87.16.-b
cell walls, 87.16.Gj
cytoskeleton, 87.16.Ln
intracellular signaling, 87.16.Xa
intracellular trafficking, 87.16.Wd
membranes in, 87.16-D-
microtubules in, 87.16.Ka
mitochondria in, 87.16.Tb
morphology of nerve cells, 87.16.Mq
motor proteins in, 87.16.Nn
nuclear morphology, 87.16.Zg
regulatory networks, 87.16.A-
transport processes in, 87.16.dp, 87.16.Uv, 87.16.Vy
Subduction zones
geochemistry of, *91.67.fc
in marine geology, 91.50.Wy
seismology of, 91.45.Hc
in volcanology, 91.40.Rs
Sublimation, 64.70.Hz
Submarine landslides, 91.50.Xz
Submersible ocean observatories, 91.50.Yf
Submillimeter waves
astronomical observations, 95.85.-e
receivers and detectors, 07.57.Kp
sources, 07.57.Hm
Subsonic flows, 47.40.Dc
SU groups
in nuclear physics, 21.60.Fw
Summer schools, 01.30.Bb
Sum rules (S-matrix theory), 11.55.Hx
Sun
characteristic and properties of, 96.60.-j
cosmic rays, 96.50.S-
helioseismology, 96.60.Ly
radiation (meteorology), 92.60.Vb
solar magnetism, 96.60.Hv
Sunspots, 96.60.qd
Superconducting cables, 84.71.Fk
Superconducting devices, 85.25.-j
Superconducting films, 74.78.-w
Superconducting high-power technology, 84.71.-b
Superconducting integrated circuits, 85.25.Hv
Superconducting junctions (SN and SNS), 74.45.+c
Superconducting low-dimensional structures, 74.78.-w
Superconducting magnets, 84.71.Ba
Superconducting materials
noncuprate materials, 74.70.-b
cuprates, 74.72.-h
Superconducting wire networks, 74.81.Fa
Superconducting wires, fibers, and tapes, 84.71.Mn
Superconductivity
new topics in, 74.90.+n
potential candidates, 74.10.+v
theories and models of, 74.20.-z
Superconductors
nuclear magnetic resonance (NMR), 74.25.nj
optical spectra, 74.25.nd
phonons in, 74.25.Kc
Raman spectra, 74.25.nd
properties of, 74.25.-q
Supercritical fluids
chemical reactions in, 82.33.De
optical properties of, 78.15.+e
Superexchange interactions, 75.30.Et
Superfluidity
hydrodynamic aspects of, 47.37.+q
of mixed systems, 67.60.-g
Superfluorescence, 42.50.Nn
Supergiant stars, 97.20.Pm
Supergravity, 04.65.+e
Superheavy elements
properties of, 27.90.+b
reactions and scattering of, 25.70.-z, 25.75.-q
Superionic conductors, 66.30.H-
Superlattices
dielectric films, 77.55.Px
electron states and collective excitations in, 73.21.Cd
magnetic properties of, 75.70.Cn
optical properties of, 76.87.Pt
photoemission and photoelectron spectra of, 79.60.Jv
structure and nonelectronic properties of, 68.65.Cd
superconducting, 74.78.Fk
Supermagnetism, 75.50.Vv
Supernovae, 97.60.Bw
evolution, nuclear physics aspects of, 26.50.+x
explosive burning in shock fronts, 26.30.Ef
nucleosynthesis in, 26.30.-k
Supernova remnants
in external galaxies, 98.58.Mj
in Milky Way, 98.38.Mr
Superplasticity, 62.20.qc
Super-radiance, 42.50.Nn
Supersaturation measurement, 82.20.-w
Supersolids
4He, 67.80.bd
quantum solids, 67.80.K-
Supersonic flows, 47.40.Ki
Supersymmetric Higgs bosons, 14.80.Da
Supersymmetric models, 12.60.Jv
Supersymmetric partners of known particles, 14.80.Ly
Supersymmetry, 11.30.Pb
Supramolecular assembly, 81.16.Fg
Surface acoustic wave devices, 85.50.-n
superconducting, 85.25.Qc
transducers for, *43.38.Rh
Surface acoustic waves
effect of nonlinearity on, *43.25.Fe
in piezoelectrics, 77.65.Dq
in solids and liquids, *43.35.Pt, 68.35.Jv
Surface barrier devices, 85.30.Hi
Surface cleaning, 81.65.CF
plasma-assisted, 52.77.Bn
Surface conductivity, 73.25.+i
Surface crossings (electronic structure), 31.50.Gh
Surface diffusion, 68.35.Fx
Surface double layers, 73.30.+y, 82.45.Mp
Surface dynamics, 68.35.Ja
Surface-enhanced Raman scattering (SERS), 78.30.-j
Surface energy
of solid surfaces, 68.35.Md
thermal properties of crystalline solids, 65.40.gp
Surface flows, 83.50.Lh
Surface hardening, 81.65.Lp
Surface impedance (superconductivity), 74.25.nn
Surface magnetism, 75.70.Rf
Surface patterning, 81.65.CF
Surface phase transitions, 68.35.Rh
ultrasonic, 43.35.Wa
Top quarks, 14.65.Ha
Topography
Earth, 91.10.Jf
Moon, 96.20.Dt
Topological excitations (Bose-Einstein condensation), 03.75.Lm
Topological phases (quantum mechanics), 03.65.Vf
Topology, 02.40.Pc
algebraic, 02.40.Re
Topside region, ionosphere, 94.20.dl
Toroidal confinement devices, 52.55.Hc
Torque
measurement of, 07.10.Pz
in Newtonian mechanics, 45.20.da
Torsatrons, 52.55.Hc
Torque measurement of, 07.10.Pz
in Newtonian mechanics, 45.20.da
Torsatron, 52.55.Hc
Total energy calculations (condensed matter), 71.15.Nc
Touch (sensory systems), 87.19.lt
Townsend discharge, 52.80.Dy
Toys, physics of, 01.50.Wg
Trajectory models
for atomic and molecular collisions, 34.10.+x
for chemical kinetics, 82.20.Fd
Transducers
acoustic, 43.38.+n, 43.38.-p
general instrumentation for, 07.07.Mp
for underwater sound, 43.30.Yj
Transfer functions, optical, 42.30.Lr
Transfer reactions
deuterium-induced, 25.45.Hf
heavy-ion-induced, 25.70.Hf
nucleon-induced, 25.40.Hf
unstable-nuclei-induced, 25.60.Jf
Transient grating spectroscopy, 78.47.jj
Transistors
bipolar, 85.30.Pq
field effect, 85.30.Tv
Transition-metal compounds, electrical conductivity of, 72.80.Ga
Transition metals and alloys
electric conductivity of, 72.15.Eb
electronic structure of, 71.20.Be
Transition probabilities
atomic, 32.70.Cs
molecular, 33.70.Ca
nuclear, 23.20.-g
Transition radiation
by relativistic moving charges, 41.60.Dk
Transition state theory (chemical kinetics), 82.20.Db
Transition temperature variations (superconductivity), 74.62.-c
chemical composition effects on, 74.62.Bf
crystal defects effects on, 74.62.Bf
disorder effects on, 74.62.En
doping and substitution effects on, 74.62.Dh
material synthesis effects on, 74.62.Bf
pressure effects on, 74.62.Fj
Transmission coefficients, optical, 78.20.Ci
Transmission electron microscopy (TEM), 68.37.Lp
high-resolution transmission electron microscopy (HRTEM), 68.37.Qg
scanning transmission electron microscopy (STEM), 68.37.Ma
Transmission lines, 84.40.Az
Transonic flows, 47.40.Hg
Transportation, 89.40.-a
Transport dynamics
of biomolecules, 87.15.hj
Transport processes
classical, 05.60.Cd
in gases, 51.10.+y
in interfaces, 73.40.-c
in metals and alloys, 72.15.-v, 72.25.Ba
neutron, 28.20.Gd
non-electronic (see 66)
in normal phase 3He, 67.30.eh
in normal phase 4He, 67.25 bf
in plasma, 52.25.Fi
quantum, 05.60.Gg
in quantum fluids, 67.10.Jn
in semiconductors and insulators, 72.20.-i, 72.25.-b
spin-polarized, 72.25.-b
subcellular, 87.16.dp, 87.16.Uv, 87.16.Vy
in superconductors, 74.25.F-
in superfluid phase 3He, 67.30.hb
in superfluid phase 4He, 67.25.dg
in thin films, 73.50.-h, 73.61.-r
Trapped particles (magnetosphere), 94.30.Hn
Trapping, charge carriers
in bulk matter, 72.20.Jv
in thin films, 73.50.Gr
Traps, ion, 37.10.Ty
Traveling-wave tubes, 84.40.Fe
Traversal time (quantum mechanics), 03.65.Xp
Treatment planning, 87.55.D-
dose-volume analysis in, 87.55.dk
optimization techniques in, 87.55.de
tissue response in, 87.55.db
Treatment strategy (medical physics), 87.55.-x
Monte Carlo methods in, 87.55.K-
quality assurance in, 87.55.Qr
radiation monitoring in, 87.55.N-
record and verify systems in, 87.55.T-
safety in, 87.55.N-
simulation of, 87.55.Gh
treatment planning, 87.55.D-
Triassic period, *91.70.dg
Tribology
rheology of, 83.50.Lh
of solids, 62.20.Qp
in structural mechanics, 46.55.+d
Triboluminescence, 78.60.Mq
Trions, 71.35.Pq
Triple points, 64.60.Kw
Triplet state, 31.50.Df, 33.50.-j
Triton-induced reactions, 25.55.-e
Tritons, 27.10.-h
Tropical regions, 93.30.Vs
meteorology of, 92.60.Ox
Troposphere, 92.60.hf
Tsunamis, 91.30.Nw, *92.10.hl
Tube flow, 47.60.-i
Tube theories (rheology), 83.10.Kn
Tully-Fisher relationship (astrophysics), 98.62.Ve
Tundra, 92.40.Vq, *92.40.Vy
Tunneling
in Bose-Einstein condensation, 03.75.Lm
defects, 66.35.+a
in interface structures, 73.40.Gk
macroscopic, in magnetic systems, 75.45.+j
in quantum Hall effects, 73.43.Ij
quantum mechanics of, 03.65.Xp, 03.75.Lm
single particle tunneling (superconductors), 74.55.+v
Josephson effects, 74.50.-r
Tunnel junction devices, 85.30.Mn
Turbulence
atmospheric, 92.60.hk
atmospheric optics, 42.68.Bz
fluid, 47.27.-i
meteorological, 92.60.hk
oceanic, 92.10.Lq
plasma, 52.35.Ra
space plasma, 94.05.Lk
Turbulent diffusion, 47.27.tb
Turbulent flows, 47.27.-i
boundary-free, 47.27.W-
boundary layer, 47.27.nb
channel flow, 47.27.ad
coherent structures, 47.27.De
mixing layers, 47.27.wj
simulation and modeling, 47.27.E-
transition to turbulence, 47.27.Cn
wall-bounded, 47.27.N-
Tutorial papers, 01.30.Rr
Twining, 61.72.Mm
Two-fluid theory (superconductivity), 74.20.De

Vacancies, in crystals, 61.72.jd
Vacuum chambers, 07.30.Kf
Vacuum gauges, 07.30.Dz
Vacuum microelectronics, 85.45.-w
Vacuum production, 07.30.-t
Vacuum tubes, 84.47.+w
Valence-bond method
in electronic structure of atoms and molecules, 31.15.xw
in electronic structure of solids, 71.15.Ap
Valence fluctuation
in diamagnetism and paramagnetism, 75.20.Hr
in magnetically ordered materials, 75.30.Mb
Vapor-liquid transitions, 64.70.F-
Vapor phase epitaxy, 81.15.Kk
Vapor-solid transitions, 64.70.Hz
Variable stars, 97.30.-b
Variational methods
in atomic physics, 31.15.xt
in classical mechanics, 45.10.Db
in continuum mechanics, 46.15.Cc
in elementary particle physics, 11.80.Fv
in general relativity, 04.20.Fy
Varistors, 84.32.Ff
Vegetable oils as fuels from biomass, 88.20.ft
Vibrating structures, *43.20.Tb
Vibrational constants, molecular, 33.15.Mt
Vibrational energy transfer, 34.50.Ez
Vibrational levels
macromolecular, 36.20.Ng
molecular, 33.20.Tp
nuclear, 33.20.Tp
nuclear, 21.60.Ev
Vibrations
of adsorbates, 68.43.Pq
in crystal lattices, 63.70.+h
in disordered systems, 63.50.-x
mechanical, 46.40.-f
in mechanical properties of solids, 62.30.+d
at solid surfaces and interfaces, 68.35.Ja
in structural acoustics, *43.40.-r, 43.40.+s
Vibronic interactions, 33.20.Wr
Vibrational rotation, 06.70.Cj
Video coding, 42.30.Va
Video devices, educational, 01.50.ff
Viral diseases, 87.19.xd
Viscoelasticity
in continuum mechanics of solids, 46.35.+z
in rheology, 83.60.Bc, 83.60.Df
Viscometers, 47.80.-v
Viscometry, 83.85.Jn
Viscoplasticity
in continuum mechanics, 46.35.+z
in rheology, 83.60.La
Viscosity, 66.20.-d
experimental studies of, 66.20.Ej
of gases, 51.20.-d
shear rate dependent, 83.60.Fg
theory and modeling of, 66.20.Cy
Viscous instability, 47.20.Gv
Visible and ultraviolet spectrometers, 07.60.Rd
Visible radiation
in astronomical observations, 95.85.Kr
effects on biological systems, 87.50.W-
in plasma, 52.25.Os
scattering of, in biophysics, 87.64.Cc
surface irradiation effects of, 61.80.Ba
Visible spectra
X-ray optics, 41.50.+h
X-ray photoelectron diffraction, 61.05.js
X-ray photoelectron spectra
  of molecules, 33.60.+q
  in surface analysis, 79.60.-i
X-ray radiation effects, 61.80.Cb
  in biology, 87.53.-j
  in photochemistry, 82.50.Kx
X-ray radiography, 87.59.B-
  computed radiography, 87.59.bd
  digital radiography, 87.59.hf
X-ray reflectometry
  in crystal structure, 61.05.cm
X rays
  emission, absorption, and scattering in plasmas, 52.25.Os
  in plasma diagnostics, 52.70.La
  radiation monitoring and safety of, 87.55.N-
  spin arrangement determinations with, 75.25.-j
X-ray scattering
  interactions with matter, 78.70.Ck
  in structure determination, 61.05.cf
X-ray sources
  galactic and stellar, 97.80.Jp, 98.70.Qy
  hard, 52.59.Px
  instrumentation for, 07.85.Fv
  from laser-plasma interactions, 52.38.Ph
X-ray spectrometers, 07.85.Nc
X-ray spectroscopy
  in astronomical observations, 95.85.Nv
  in atoms, 32.30.Rj
  in biophysics, 87.64.kd
  in chemical analysis, 82.80.Ej
  EXAFS
    molecules, 33.20.Rm
    nuclear physics, 29.30.Kv
X-ray standing waves, 68.49.Uv
X-ray telescopes, 95.55.Ka
X-ray topography (crystal defects), 61.72.Ff

Y
Yang-Mills fields, 12.10.-g, 12.15.-y
Yield stress, 62.20.fg
Yield stress (rheology), 83.60.La
Young's modulus, 62.20.de, 81.40.Ij
Yrast states, 21.10.Re
ZZ bosons, 14.70.Hp
Zeeman effect
  in atoms, 32.60.+i
  in condensed matter, 71.70.Ej
  in molecules, 33.57.+c
Zener diodes, 85.30.Mn
Zeolites
  catalysis in, 82.75.Qt
  clusters in, 82.75.Vx
  molecule migration in, 82.75.Jn
  properties of molecules in, 82.75.Mj
  reactions in, 82.33.Jx

Z
Zero gravity experiments (materials testing), 81.70.Ha
ZnO films (dielectric films), 77.55.he
Zodiacal light, 96.50.Dj
Zone melting and refining, 81.10.Fq
Zone plates, 42.79.Cl
Z-pinches
  devices, 52.58.Lq
  wire array, 52.59.Qy

Please note that the AIP Thesaurus has replaced PACS® as an aid in indexing and retrieving scientific information. PACS® 2010 is the final version.