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Joseph J. Lagowski

Editor in Chief

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COMMON ABBREVIATIONS AND SYMBOLS

′	foot; minute (of arc); single prime
″	inch; second (of arc); double prime
+	plus
$^+$	positive charge
−	minus
$^-$	negative charge
±	plus-or-minus
∓	minus-or-plus
×	multiplied by
·	multiplied by
/	divided by
=	equals
≠	not equal to
≢	not equivalent to
~	about, approximately
≅	congruent to; approximately equal to
≈	approximately equal to
≡	identical to; equivalent to
<	less than
≤	less than or equal to
>	greater than
≥	greater than or equal to
⊂	included in
⊃	excluded from
%	percent
°	degree (temperature; angle of arc)
:	ratio
@	at
—	single bond
═	double bond
: :	double bond
≡	triple bond
: : :	triple bond
∞	infinity
∝	variation
∂	partial derivative or differential
α	proportional to
√	square root
$\sqrt[3]{}$	cube root
Δ	delta; increment of a variable
∈	is an element of
ε_0	dielectric constant; permittivity
θ	plane angle
λ	wavelength
μ	magnetic moment; micro-
μA	microampere
μC	microcoulomb
μF	microfarad
μg	microgram
μg/ml	microgram per milliliter
μK	microkelvin
μm	micrometer (also called micron)
μmol	micromole
μs, μsec	microsecond
ν	frequency
υ	velocity
π or pi	ratio of the circumference of a circle to its diameter; double as in double bond
σ	single as in single bond; Stefan-Boltzmann constant
Σ	summation
ϕ	null set
ψ	amplitude of a wave (as in *wave,* or *psi, function*)
∠	angle
Ⓗ	angle of diffraction maxima (under Bragg's law)
Ω	solid angle
→	reaction to right
←	reaction to left
↔	connecting resonance forms
⇆	equilibrium reaction beginning at right
⇄	equilibrium reaction beginning at left
⇌	reversible reaction beginning at left
⇋	reversible reaction beginning at right
⇑	elimination
⇓	absorption
↻	repositioning
↻	ring opening

↯	electrolysis
⌠	integral (may position horizontally as here or vertically)
a	acceleration; year
A	area
a_0	Bohr Unit
AA	atomic absorption
AAS	atomic absorption spectroscopy
ABS	alkylbenzene sulfate
Ac	actinium
ACE	angiotension-converting enzyme
ACM	asbestos-containing materials
ACP	acyl carrier protein
ACS	American Chemical Society
A.D.	anno domini
ADD	attention deficit disorder
ADH	alcohol dehydrogenase
ADP	adenosine diphosphate
AE	atomic emission; atomization energy
AEC	Atomic Energy Commission
AES	atomic emission spectroscopy
AF	atomic fluorescence
AFM	atomic force microscope; atomic force microscopy
AFS	atomic fluorescence spectroscopy
Ag	silver
AHERA	Asbestos Hazard Emergency Response Act
AIDS	acquired immunodeficiency syndrome
Al	aluminum
ALDH	aldehyde dehydronase
Am	americium
amp	ampere
AMP	adenosine monophosphate
cAMP	cyclic adenosine monophosphate
AMS	accelerator mass spectometry
amu	atomic mass unit
ANFO	ammonium nitrate and fuel oil
ANRORC	addition nucleophilic ring opening and ring closure
APC	air pollution control
Ar	argon
As	arsenic
ASHAA	Asbestos School Hazard Abatement Act
ASHARA	Asbestos School Hazards Abatement Reauthorization Act
ASTM	American Society for Testing and Materials
At	astatine
atm.	standard atmosphere (unit of pressure)
ATP	adenosine triphosphate
ATR	attenuated total reflectance
Au	gold
AZT	the anti-HIV drug also known as Zidovudine (trade name Retrovir)
B	boron
B	magnetic flux density
Ba	barium
BAL	British Anti-Lewisite
BAT	best available technology
BDE	bond dissociation energies
Be	beryllium
Bh	nielsbohrium, niels-bohrium, or bohrium (three forms of one of the names proposed for element 107)
BHA	butylated hydronyanisole
BHT	butylated hydroxytoluene
Bi	bismuth
Bk	berkelium
BOD	biochemical oxygen demand
b.p.	boiling point
Br	bromine
Btu	British thermal unit
c	centi-; speed of light
C	carbon; Celsius; centigrade; coulomb
C	heat capacity; electric capacitance
ca.	approximately or circa
Ca	calcium
CAA	Clean Air Act
CAM	Crassulacean acid metabolism
CAS	Chemical Abstracts Service
CASSI	Chemical Abstracts Service Source Index
C.B.E.	Commander of the Order of the British Empire
Cd	cadmium
CD	circular dichroism
CD-ROM	compact disc/read-only memory device
Ce	cerium
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cf.	compare, confer
Cf	californium
CFC	chlorofluorocarbon
CFR	Code of Federal Regulation
CFSE	crystal field stabilization energy
CFT	crystal field theory
CGPM	Conférence des Générale des Poids et Mesures (General Conference on Weights and Measures)
Ci	Curies

CI	configuration interaction
CIEEL	chemically initiated electron exchange luminescence
Cl	chlorine
cm	centimeter
Cm	curium
cm^3	cubic centimeter
CMC	critical micelle concentration
CMP	cytidine monophosphate
CMPES	capacitatively coupled microwave plasma emission spectroscopy
CMPS	capacitatively coupled plasma spectroscopy
CN	coordination number
CNDO	complete neglect of differential overlap
CNOC	Commission on Nomenclature of Organic Chemistry
CNS	central nervous system
Co	cobalt
COD	chemical oxygen demand
COSY	correlation spectroscopy
CPI	chemical processing industries
Cr	chromium
Cs	cesium
CSF	cerebospinal fluid; colony-stimulating factor
CT	computed tomography
Cu	copper
CVT	chemical vapor transport
cyt	cytochromes
d	day; deci-
D	debye; deuterium; dipole moment unit of measure
D	dipole moment
D	dextrorotatory
DA	dopamine
Db	dubnium (one of the names variously proposed for elements 104 or 105)
DC	direct current
DCPES	direct current plasma emission spectroscopy
DDD	dichlorodyphenyldichloroethane (a pesticide)
DDT	dichlorodiphenyltrichloroethane (a pesticide)
deg	degree
DES	diethylstilbestrol
DIFP	diisopropyl fluorophosphate
DMBA	dimethylbenzanthracene
DMF	dimethylformamide
DMPU	dimethylpropylene urea
DMSO	dimethyl sulfoxide (dimethylsulfoxide)
DNA	deoxyribonucleic acid
cDNA	complementary DNA
rDNA	recombinant DNA
DOT	Department of Transportation
doz.	dozen
DP	degree of polymerization
DPP	differential pulse polarography
DQMC	diffusion quantum Monte Carlo method
dr	diastereomer ratio
DS	degree of substitution
D.Sc.	doctor of science
dt	document type
Dy	dysprosium
DZ	double zeta
e	elementary charge
E	epinephrine
E	electric field strength; energy
$\mathscr{E}$	maximum electrical potential
E_a	activation energy
E_g	bandgap energy
ea.	each
EA	electron affinity
ECD	electron capture detector
ECG	explicitly correlated Gaussian wave function
ed.	edition, editor
EDTA	ethylenediaminetetraacetic acid
ee	enantiomeric excess
EFF	empirical force field
e.g.	for example (from Latin *exempli gratia)*
EGF	epidermal growth factor
EM	electromagnetic
e.m.f.	electromotive force
EMPD	*para*-ethoxy-*meta*-phenylediamine
EN	electronegativity
EOR	enhanced oil recovery
EP	electron pair
EPA	Environmental Protection Agency
EPR	electron paramagnetic resonance
er	enantiomer ratio
Er	erbium
erg. sec.	centimeter-gram-second (unit of measure of work)
ERT	estrogen replacement therapy
Es	einsteinium
ESCA	electron spectroscopy for chemical analysis
ESEM	environmental scanning electron microscope

ESR	electron spin resonance
esu	electrostatic unit
et al.	and others (from Latin, *et alia*)
etc.	et cetera, and so on
Eu	europium
eV	electron volts
EWG	electron-withdrawing group
f	femto-
F	Fahrenheit; Faraday's constant; fluorine
F	force
$\mathcal{F}$	Faraday's constant
FAAS	flame atomic absorption spectroscopy
FAB	fast atom bombardment
FAD	flavin adenine dinucleotide
FAES	flame atomic emission spectroscopy
FAFS	flame atomic fluorescence spectroscopy
FAS	fatty acid synthetase
FCC	face-centered cubic; fluid-catalytic cracking
FDA	Food and Drug Administration
FES	flame emission spectroscopy
FITC	fluorescein isothiocyanate
Fm	fermium
FMN	flavin mononucleotide
Fr	francium
FRET	fluorescence resonance energy transfer
F.R.S.	Fellow of the Royal Society
FSH	follicle-stimulating hormone
FT	Fourier transform
FTIR	Fourier transform infrared
FVT	flash vacuum thermolysis
g	gram
g	*g*-orbital
G	gravity; gravitational constant
Ga	gallium
GABA	gamma aminobutyric acid
GAC	granular activated carbon
GB	Sarin (a nerve agent)
GC	gas chromatography
GC-IR	gas chromatography–infrared spectrophotometry
gc-mass spec	gas chromatography–mass spectrometry
GC-MS	gas chromatography–mass spectrometry
Gd	gadolinium
GD	Soman (nerve agent)
Ge	germanium
g/l	grams per liter
GLC	gas-liquid chromatography
GMP	guanosine monophosphate
GnRH	gonadotropin-releasing hormone
GSC	gas-solid chromatography
GTP	guanosine diphosphate
h	hour
h	Planck's constant
$\hbar$	*h* divided by 2π
H	enthalpy, hydrogen
^{1}H or H^1	protium (most common hydrogen isotope)
^{2}H or H^2	deuterium (hydrogen isotope)
^{3}H or H^3	tritium (hydrogen isotope)
Ha	hahnium (one of the names variously proposed for elements 105 or 108)
Hb	hemoglobin
HD	high density; "mustard gas"
HDPE	high-density polyethylene
He	helium
hex	hexatic
Hf	hafnium
HF-SCF	Hartee-Fock self-consistent field
Hg	mercury
HIV	human immunodeficiency virus
HMO	Hückel molecular orbital
HMPA	hexamethyl phosphoramide
Ho	holmium
HOAc	acetic acid
HOMO	highest occupied molecular orbital
HPLC	high-performance liquid chromatography
HRE	hormone-responsive elements
HRT	hormone replacement therapy
Hs	hassium (one of the names proposed for element 108)
HTLV-1	human t-cell lymphotropic virus 1
HVAO	hybrid-valence atomic orbital
Hz	hertz
i	*i*-orbital
I	iodine; ionic strength; electric current
ibid.	in the same place (from Latin, *ibidem*)
ICAPES	inductively coupled argon plasma emission spectroscopy
ICPS	inductively coupled plasma spectroscopy
ICRP	International Commission on Radiological Protection
i.e.	that is (from Latin, *id est*)
IE	ion exchange; ionization energy
IEEE	Institute of Electrical and Electronics Engineers
IGR	insect growth regulator
Igs	immunoglobulins
in.	inch

IP	ionization potential
IPK	international prototype kilogram
Ir	iridium
IR	infrared
IUC	International Union of Chemistry
IUPAC	International Union of Pure and Applied Chemistry
J	joule
J	electric current density
JH	juvenile hormone
Jl	joliotium (one of the names proposed for element 105)
k	*k*-orbital
K	degrees Kelvin; Kelvin; potassium
K_a	acidity constant for the dissociation of a weak acid (the weaker the acid, the lower the K_a value)
k_B	Boltzmann's constant
K.B.E.	Knight Commander of the British Empire
KE	kinetic energy
Kg	kilogram
kHz	kilohertz
kJ	kilojoule
kJ mol	kilojoule mole
km	kilometer
K_m	Michaelis constant
Kr	krypton
l	length
L	lambert; liter
L	length; Avogadro's constant
L	levorotatory
La	lanthanum
LAS	linear alkylsulfonates
laser	light amplification by stimulated emission of radiation
LC	liquid chromatography
LCAO	linear combination of atomic orbitals
LD	lethal dose
LDL	low-density lipoprotein
LDPE	low-density polyethylene
LEED	low-energy electron diffraction
LEIS	laser-enhanced ionization spectroscopy
LFER	linear free energy relation
LFP	laser flash photolysis
LFT	ligand field theory
LH	light-harvesting; loop of Henle; luteinizing hormone
Li	lithium
LIES	laser-induced emission spectroscopy
LIFS	laser-induced fluorescence spectroscopy
LIPES	laser-induced plasma emission spectroscopy
LIPFS	laser-induced plasma fluorescence spectroscopy
LLDPE	linear low-density polyethylene
LMFB	liquid-metal fast breeder (reactor)
LMO	localized molecular orbital
L/mole	liters per mole
ln	natural logarithm
log	logarithm
LP	liquefied petroleum
LPE	liquid phase epitaxy
LPG	liquefied petroleum gas
Lr	lawrencium
LSD	lysergic acid diethylamide
LTMA	lithium trimethoxyaluminium
Lu	lutetium
LUMO	lowest unoccupied molecular orbital
LVLD	very low-density lipoproteins
m	meter; milli-; molal (concentration)
m	mass
$\hat{m}$	equivalent weight
M	molar (concentration)
$\mathfrak{M}$	molar mass
m^2	square meter
m^3	cubic meter
m_e	electron mass
mA	milliamperes
M.A.	master of arts degree
MALDI	matrix-assisted laser desorption ionization
6-MAM	6-monoacetylmorphine
Mb	million base
MBE	molecular beam epitaxy
MBPT	many-body perturbation theory
MBS	minimum basis sets
MC	Monte Carlo (as in *Monte Carlo simulations*)
MCL	maximum contaminant level
MCLG	maximum contaminant level goal
Md	mendelevium
MD	molecular dynamics
mg	milligram
Mg	magnesium
mg/L	milligrams per liter
MHz	megahertz
min	minute
MINDO	modified intermediate neglect of differential overlap
MIPS	microwave-induced plasma spectroscopy
MIR	multiple internal reflectance
mix	mixture
ml	milliliter

mL	millilambert; milliliter
MLv	multilamellar vesicle
mm	millimeter
MM	molecular mechanics
MMPD	*para*-methoxy-*meta*-phenylenediamine
Mn	manganese
Mo	molecular orbital; molybdenum
mol	mole
MOT	molecular orbital theory
m.p.	melting point
MRI	magnetic resonance imaging
MRS	magnetic resonance spectroscopy
MS	mass spectrometer; mass spectrometry; molar substitution
msec	millisecond
MSG	monosodium glutamate
MSW	municipal solid waste
Mt	meitnerium (name proposed for element 109)
MTBE	methyl *t*-butyl ether
MVK	methyl vinyl ketone
MW	megawatt
n	amount of substance in moles; molecular quantity; nano-; negative; neutral; neutron
n	neutron; number
N	newton, nitrogen, nylon
N	normal molecular structure; normal solute concentration
N_a	Avogadro's constant
Na	sodium
NAAQS	National Ambient Air Quality Standards
NAD	nicotinamide adenine dinucleotide
NADH	nicotinamide adenine dinucleotide (reduced form)
NADP	nicotinamide adenine dinucleotide phosphate
NADPH	nicotinamide adenine dinucleotide phosphate (reduced form)
Nb	niobium
Nd	neodymium
Ne	neon
NE	norepinephrine
Ni	nickel
NIH	National Institutes of Health
NIMBY	"not in my backyard"
NIST	National Institute of Standards and Technology
nm	nanometer
NMR	nuclear magnetic resonance
No	nobelium
Np	neptunium
NRC	Nuclear Regulatory Commission
NSAID	nonsteroidal anti-inflammatory drug
nsec	nanosecond
NSOM	near-field scanning optical microscope
NTD	neural tube defects
O	oxygen
O.B.E.	Officer of the Order of the British Empire
OBP	odorant-binding protein
O.E.D.	Oxford English Dictionary
ORD	optical rotary dispersion
ORN	olfactory receptor neurons
Os	osmium
OSHA	Occupational Safety and Health Act; Occupational Safety and Health Administration
OTC	over-the-counter
P	electron density; mass density; phosphorus; pressure; power; stress
P_c	critical pressure
Pa	pascal; protactinium
PABA	*para*-aminobenzoic acid
PAH	polycyclic aromatic hydrocarbon
PAN	peroxyacetyl nitrate
Pb	lead
PBB	polybrominated biphenyl
PBG	porphobilinogen
PBI	polybenzimidazole
PCB	polychlorinated biphenyl
PCP	phencyclidine
PCR	polymerase chain reaction
Pd	palladium
PDGF	platelet-derived growth factors
PDT	photodynamic therapy
PEA	phenylethylamine
PEL	permissible exposure level
PEM	protein energy malnutrition
PET	polyethylene terephthalate; positron emission tomography
PETN	pentaerythritol tetranitrate
pH	measure of acidity or alkalinity (from French, *pouvoir hydrogène*, meaning "hydrogen power")
Ph.D.	doctor of philosophy degree
PIC	product of incomplete combustion
pK_a	the negative logarithm of the acidity constant for the dissociation of a weak acid (the pK_a value increases as the level of acidity decreases)
PKU	phenylketonuria
pm	picometer; pyridoxamine
Pm	promethium
PMMA	polymethyl methacrylate

PMT	photomultiplier tubes
Po	polonium
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
Pr	praseodymium
PRDDO	partial retention of diatomic differential overlap
psi	per square inch; English for ψ
Pt	platinum
PTA	packed tower aeration
PTTH	prothoracicotropic hormone
Pu	plutonium
PUFA	polyunsaturated fatty acids
PVA	polyvinyl alcohol
PVAc	polyvinyl acetate
PVB	polyvinyl butyral
PVC	polyvinyl chloride
q	quantity
$\bar{q}$	specific quantity
$\hat{q}$	equivalent quantity
Q	electric charge
QM	quantum mechanics
QSAR	quantitative structure-activity relationships
QSPR	quantitative structure-property relationships
Ra	radium
rad	radian; radiation-absorbed state
Rb	rubidium
RBE	related biological effectiveness
RC	reaction center
RCRA	Resource Conservation and Recovery Act
RDA	recommended daily allowance
RDF	radial distribution function
rds	rate-determining step
Re	rhenium
REM	radiation-dose unit of measure (acronym stands for "Roentgen Equivalent Man")
Rf	rutherfordium
RF	radiofrequency
RFLP	restriction fragment length polymorphism
RI	refractive index
RITC	rhodamine isthiocyanate
Rn	radon
RNA	ribonucleic acid
mRNA	messenger ribonucleic acid
tRNA	transfer ribonucleic acid
RO	reverse osmosis
ROMP	ring-opening metathesis polymerization
RSP	reactivity-selectivity principle
Ru	ruthenium
Rf	rutherfordium (one of the names variously proposed for element 104 or 106)
S	sulfur
S	entropy
SARA	Superfund Amendments and Reauthorization Act
Sb	antimony
Sc	scandium
SCF	self-consistent field
Se	selenium
sec	second; secant
SEM	scanning electron microscope
SF	supercritical field
SFC	supercritical fluid chromatography
SFE	supercritical fluid extraction
Sg	seaborgium (one of the names proposed for element 106)
SHE	standard hydrogen electrode
Si	silicon
SI	Système Internationale (International System of Measurements)
SLV	single lamellar vesicle
Sm	samarium
Sn	tin
SPF	skin protection factor
SPM	scanning probe microscope
sr	steradian
Sr	strontium
SRM	Standard Reference Materials
STM	scanning tunneling microscope; scanning tunneling microscopy
STP	standard temperature and pressure (0°C, 1 atm)
Sv	sievert unit (1 Sv = 100 rem), used to measure radiation dose
t	time
T	moment of force; thermodynamic temperature (in degrees Kelvin); torque
T_c	critical temperture
T_1, T_2, T_3	various thyroid hormones
Ta	tantalum
Tb	terbium
Tc	technetium
TCA	tricarboxylic acid
TCDD	tetrachlorodibenzo-*para*-dioxin (a pesticide)
Te	tellurium
TEM	transmission electron microscope
TFPIA	Textile Fiber Products Identification Act
tg	teragram

Th	thorium
THC	tetrahydrocannabinol
THF	tetrahydrofuran
THM	trihalomethane
Ti	titanium
Tl	thalium
TL	triboluminescence
TLC	thin-layer chromatography
Tm	thulium
TNT	trinitrotoluene
TPA	tissue-plasminogen activator
TPN	triphosphopyridine nucleotide
TPNH	triphosphopyridine nucleotide (reduced form)
TRC	taste-receptor cell
TRXRF	total reflection X-ray fluorescence
TSCA	Toxic Substances Control Act
TSH	thyroid-stimulating hormone
TTHM	total trihalomethane
u	unified atomic mass unit
U	uranium
U	electric potential
dU	denatured uranium
UHF	ultrahigh frequency
Une	temporary symbol for element 109, unnilennium
Unh	temporary symbol for element 106, unnilhexium
Uno	temporary symbol for element 108, unniloctium
Unp	temporary symbol for element 105, unnilpentium
Unq	temporary symbol for element 104, unnilquadium
Uns	temporary symbol for element 107, unnilseptium
UPS	ultraviolet photoelectron spectroscopy
UV	ultraviolet
V	electric potential; vanadium; volume
V	volt
vap.	vaporization
VB	valence bond
vel.	velocity
VIS	visible
viz.	namely (from Latin, *videlicet*)
VOC	volatile organic compounds
vol.	volume (of a book)
vs.	versus
VSEPR	valence shell electron pair repulsion
VUV	vacuum ultraviolet
VX	ethyl diisopropylaminoethyl methylphosphonothiolate (a nerve agent)
W	tungsten; watt
W	mass-fraction
WORM	write once, read many
WWW	World Wide Web
X	halogen atom
Xe	Xenon
XPS	X-ray photoelectron spectroscopy
y	yocto-
Y	yttrium
Yb	ytterbium
z	zepto-
Z	atomic number
Zn	zinc
Zr	zirconium

JOURNAL ABBREVIATIONS

Acc. Chem. Res.
Accounts of Chemical Research
Acta Chim. Scand.
Acta Chimica Scandinavica
Adv. Anal. Toxicol.
Advances in Analytical Toxicology
Advances in Enzymol.
Advances in Enzymology
Adv. in Phys.
Advances in Physics
Adv. Inter. Med.
Advances in Internal Medicine
Adv. Organomet. Chem.
Advances in Organometallic Chemistry
Adv. Phys. Org. Chem.
Advances in Physical and Organic Chemistry
Adv. Polym. Sci.
Advances in Polymer Science
Adv. Quantum Chem.
Advances in Quantum Chemistry
Am. Chem. Soc.
American Chemical Society Monographs
Amer. J. Sports. Med.
American Journal of Sports Medicine
Amer. Scient.
American Scientist
Am. Fam. Phy.
American Family Physician
Am. J. Phys.
American Journal of Physics
Anal. Biochem.
Analytical Biochemistry
Analyt. Chem.
Analytical Chemistry
Angew. Chem. Int. Ed. Engl.
Angewandte Chemie, International Edition in English
Ann. Chim.
Annali di Chimica
Ann. Chim. Phys.
Annales de Chimie et de Physique
Ann. Rep. Med. Chem.
Annual Report of Medicinal Chemistry
Ann. Rev. Biochem.
Annual Review of Biochemistry
Ann. Rev. Phys. Chem.
Annual Review of Physical Chemistry
Ann. Sci.
Annals of Science
Antiviral Chem. & Chemother.
Antiviral Chemistry & Chemotherapy
Arch. Gesch. Naturwiss. Technik
Archiv der Geschichter der Naturwissenschaften und Technik
Arch. Neerl. Sci. Exactes Nat.
Archive for the History of Exact Science (Netherlands)
Atmos. Sci.
Atmospheric Science Paper
Biochem.
Biochemistry (American Chemical Society)
Biochem. Pharmacol.
Biochemical Pharmacology
Biochem. Z.
Biochemische Zeitschrift
Biochim. Biophysic. Acta
Biochimica et Biophysica Acta
Biog. Mem. Nat. Acad. Sci.
Biographical Memoirs of the National Academy of Science
Biog. Memoirs. Roy. Soc.
Biographical Memoirs of the Royal Society (United Kingdom)
Bull. Soc. Chem. Belg.
Bulletin of the Chemical Society of Belgium
CA
Chemical Abstracts
Cancer Res.
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CAS
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Chem. & Biol.
Chemistry and Biology
Chem. Brit.
Chemistry in Britain
Chem. Commun.
Chemical Communications
Chem. Educ.
Chemical Education
Chem. Eng. News
Chemical and Engineering News
Chem. Phys.
Chemical Physics
Chem. Phys. Lett.
Chemical Physics Letters
Chem. Rev.
Chemical Reviews
Chemtech
Chemical Technology (now known as Chemtech)
Clin. Chem.
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Académie des Sciences: Comptes Rendus, Série 2
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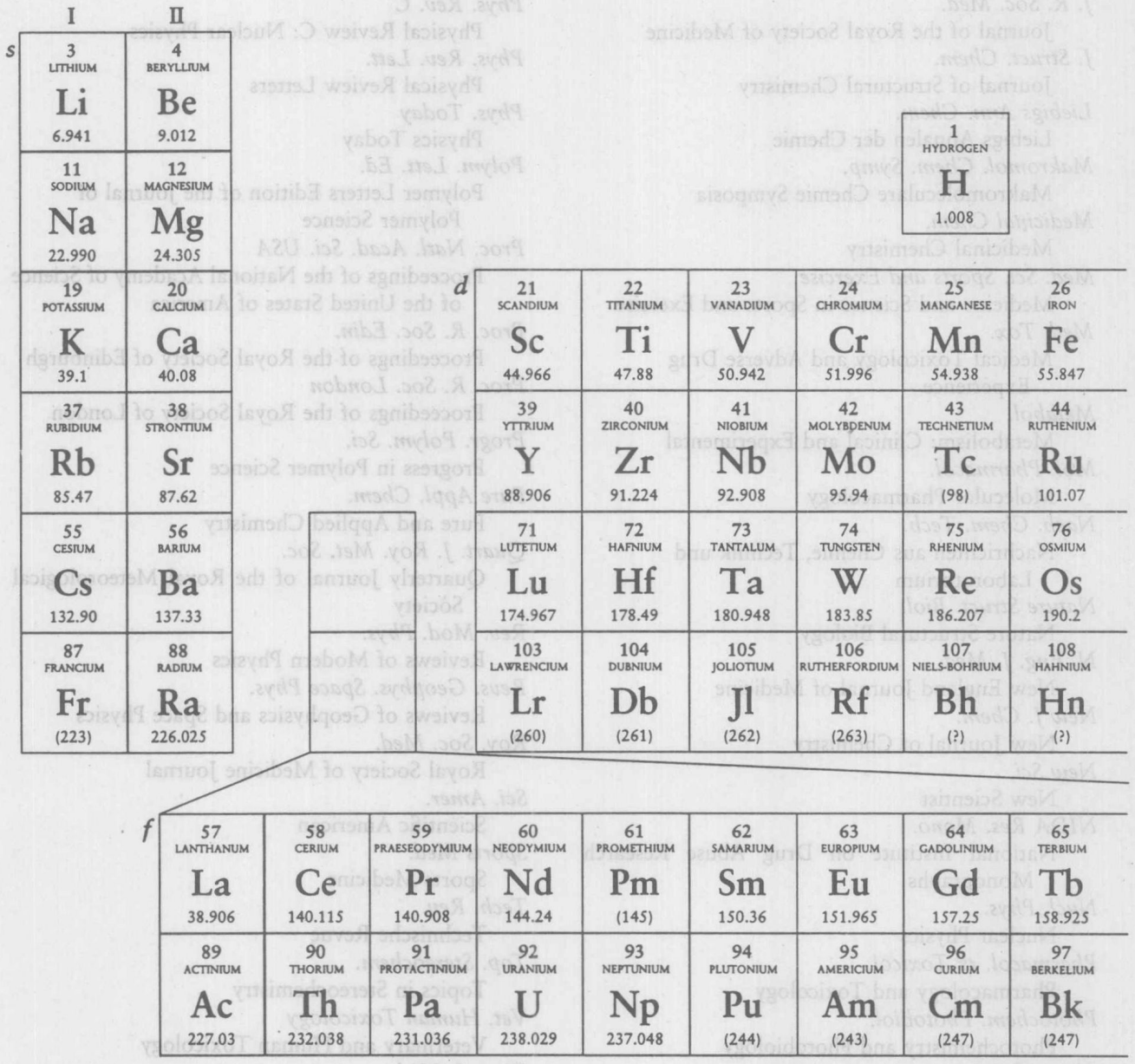
Contemporary Physics
C. R. Hebd. Séance. Acad. Sci.
Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences
Crit. Rev. Oral Biol. Med.
Critical Reviews in Oral Biology and Medicine
Croatica Chem. Acta
Croatica Chemica Acta
Drug Metab. Rev.
Drug Metabolism Review
Ecol. Bull.
Ecological Bulletin
Edin. N. Phil. J.
Edinburgh Journal of Natural Philosophy
Educ. Chem.
Education in Chemistry
Endo. Metab. Clinics N. Am.
Endocrine and Metabolism Clinics of North America
Environ. Monit. Assess.
Environmental Monitoring and Assessment
Environ. Pollut.
Environmental Pollution
Exp. Clin. Pharm.
Experimental and Clinical Pharmacology
Exp. Med.
Experimental Medicine and Microbiology
FASEB Journal
Federation of American Societies for Experimental Biology Journal
Food Tech.
Food Technology
Helv. Chim. Acta
Helvetica Chimica Acta (Switzerland)
Ind. Chem. Eng.
Industrial Engineering Chemical Research
Inorg. Chem.
Inorganic Chemistry
Int. J. Quantum Chem.
International Journal of Quantum Chemistry
Int. J. Quantum Chem. Symp.
International Journal of Quantum Chemistry Symposium
J. Am. Chem. Soc.
Journal of American Chemical Society
J. Atmos. Sci.
Journal of Atmospheric Science
J. Catal.
Journal of Catalysis
J. Chem. Educ.
Journal of Chemical Education
J. Chem. Phys.
Journal of Physical Chemistry
J. Chem. Soc.
Journal of the Chemical Society
J. Chem. Tech. and Biotech.
Journal of Chemical Technology and Biotechnology
J. Electrochem. Soc.
Journal of the Electrochemical Society
J. Inorg. Nucl. Chem.
Journal of Inorganic and Nuclear Chemistry
J. Laryng. Otol.
Journal of Laryngology and Otology
J. Math. Physics
Journal of Mathematical Physics
J. Medicinal Chem.
Journal of Medicinal Chemistry
J. Membrane Sci.
Journal of Membrane Science
J. Molec. Struct.
Journal of Molecular Structure
J. Mol. Med.
Journal of Molecular Medicine
J. Org. Chem.
Journal of Organic Chemistry
J. Pharm. Sci.
Journal of Pharmaceutical Science

J. Phys. Chem.
Journal of Physical Chemistry
J. Psycho. Drugs
Journal of Psychoactive Drugs
J. R. Soc. Med.
Journal of the Royal Society of Medicine
J. Struct. Chem.
Journal of Structural Chemistry
Liebigs Ann. Chem.
Liebigs Annalen der Chemie
Makromol. Chem. Symp.
Makromoleculare Chemie Symposia
Medicinal Chem.
Medicinal Chemistry
Med. Sci. Sports and Exercise
Medicine and Science in Sports and Exercise
Med. Tox.
Medical Toxicology and Adverse Drug Experience
Metabol.
Metabolism: Clinical and Experimental
Mol. Pharmacol.
Molecular Pharmacology
Nach. Chem. Tech.
Nachrichten aus Chemie, Technik und Laboratorium
Nature Struct. Biol.
Nature Structural Biology
N. Eng. J. Med.
New England Journal of Medicine
New J. Chem.
New Journal of Chemistry
New Sci.
New Scientist
NIDA Res. Mono.
National Institute on Drug Abuse Research Monographs
Nucl. Phys.
Nuclear Physics
Pharmacol. & Toxicol.
Pharmacology and Toxicology
Photochem. Photobiol.
Photochemistry and Photobiology
Phys. Chem.
Physiological Chemistry and Physics
Physik. Chem.
Physikalisch-Chemische Trenn- und Messmethoden
Phys. Rev.
Physiological Review
Phys. Rev. A
Physical Review A
Phys. Rev. C
Physical Review C: Nuclear Physics
Phys. Rev. Lett.
Physical Review Letters
Phys. Today
Physics Today
Polym. Lett. Ed.
Polymer Letters Edition of the Journal of Polymer Science
Proc. Natl. Acad. Sci. USA
Proceedings of the National Academy of Science of the United States of America
Proc. R. Soc. Edin.
Proceedings of the Royal Society of Edinburgh
Proc. R. Soc. London
Proceedings of the Royal Society of London
Progr. Polym. Sci.
Progress in Polymer Science
Pure Appl. Chem.
Pure and Applied Chemistry
Quart. J. Roy. Met. Soc.
Quarterly Journal of the Royal Meteorological Society
Rev. Mod. Phys.
Reviews of Modern Physics
Revs. Geophys. Space Phys.
Reviews of Geophysics and Space Physics
Roy. Soc. Med.
Royal Society of Medicine Journal
Sci. Amer.
Scientific American
Sports Med.
Sports Medicine
Tech. Rev.
Technische Revue
Top. Stereochem.
Topics in Stereochemistry
Vet. Human Toxicology
Veterinary and Human Toxicology
West. J. Med.
Western Journal of Medicine
Zeitschr. Chem.
Zeitschrift für anorganische und allgemeine Chemie



*Each element in the table is listed with (from top to bottom) its atomic number, its name, its symbol, and its atomic mass. Atomic mass numbers in parentheses are the mass numbers of the longest-lived isotope. Other atomic mass numbers are the average mass number of the naturally occurring isotopes.

†The names and labels for elements beyond number 103 are controversial. IUPAC initially ruled in favor of Latin names based on atomic number, but in 1994 a set of specific names and symbols (shown in the table) was suggested. Various groups have suggested alternative names for some of these elements. Additional superheavy elements continue to be synthesized, though with increasing difficulty, with no definite upper atomic-number limit yet established.