

Appendix I. Selected Journal Abbreviations**A**

Acc. Chem. Res.
Acta Chem. Scand., Ser. A/B
Acta Crystallogr., Sect. A/B/C/D
Adv. Mass Spectrom.
Adv. X-Ray Anal.
Agric. Biol. Chem.
Anal. Biochem.
Anal. Chem.
Anal. Chim. Acta
Angew. Chem.
Angew. Chem., Int. Ed.
Angew. Makromol. Chem.
Ann. Chem. (Fr.)
Ann. Chem. (Roma)
Arzneim.-Forsch.
Aust. J. Chem.

B

Ber. Bunsenges. Phys. Chem.
Ber. Dtsch. Chem. Ges.
Biochemistry
Biochem. Biophys. Res. Commun.
Biochem. J.
Biochem. Pharmacol.
Bull. Chem. Soc. Jpn.
Bull. Soc. Chim. Belg.
Bull. Soc. Chim. Fr.

C

Can. J. Biochem.
Can. J. Chem.
Carbohydr. Res.
Chem. Abstr.
Chem. Ber.
Chem. Commun.
Chem. Eng. News
Chem. Eng. Sci.
Chem. Eng. (N. Y.)
Chem.-Eur. J.
Chem. Ind. (London)
Chem. Lett.
Chem. Pharm. Bull.
Chem. Phys.
Chem. Phys. Lett.
Chem. Rev.
Chem. Soc. Rev.
Chimia
Collect. Czech. Chem. Commun.
C. R. Acad. Sci., Ser. II/III

D

Dokl. Akad. Nauk SSSR

E

Electrochim. Acta
Eur. J. Biochem.
Eur. J. Inorg. Chem.
Eur. J. Org. Chem.
Eur. J. Pharmacol.
Experientia

F

Fresenius' J. Anal. Chem.

G

Gazz. Chim. Ital.

H

Helv. Chim. Acta
Heterocycles

I

Indian J. Chem., Sect. A/B
Inorg. Chem.
Inorg. Chim. Acta
Inorg. Nucl. Chem. Lett.
Int. J. Biochem.
Int. J. Chem. Kinet.
Int. J. Mass Spectrom. Ion Phys.
Int. J. Pept. Protein Res.
Int. J. Quantum Chem.
Izv. Akad. Nauk SSSR, Ser. Khim.

J

J. Am. Chem. Soc.
J. Antibiot.
J. Appl. Chem. Biotechnol.
J. Appl. Crystallogr.
J. Appl. Electrochem.
J. Biochem.
J. Biol. Chem.
J. Chem. Educ.
J. Chem. Phys.
J. Chem. Soc., Chem Commun.
J. Chem. Soc., Dalton Trans.
J. Chem. Soc., Faraday Trans. 1/2
J. Chem. Soc., Perkin Trans. 1/2
J. Chem. Thermodyn.
J. Chromatogr.
J. Chromatogr. Sci.
J. Electrochem. Soc.
J. Electron Spectrosc. Relat. Phenom.
J. Fluorine Chem.
J. Heterocycl. Chem.
J. Lipid Res.

J. Liq. Chromatogr.
J. Magn. Reson.
J. Med. Chem.
J. Mol. Spectrosc.
J. Organomet. Chem.
J. Org. Chem.
J. Pharm. Pharmacol.
J. Pharm. Sci.
J. Photochem.
J. Phys. Chem.
J. Prakt. Chem.
J. Radioanal. Chem.
J. Solid State Chem.
J. Solution Chem.
J. Steroid Biochem.
Jpn. J. Antibiot.
Jpn. J. Pharmacol.

K

Khim. Prir. Soedin.

L

Liebigs Ann. Chem.
Lipids

M

Microchem. J.
Microchim. Acta
Mol. Pharmacol.
Mol. Phys.
Monatsh. Chem.

N

Nature (London)
Naturwissenschaften
Nouv. J. Chim.
Nucleic Acids Res.

O

Org. Magn. Reson.
Org. Mass Spectrom.

P

Pharmacology
Pharmacol. Res. Commun.

Photochem. Photobiol.
Phytochemistry
Planta Med.
Polym. J.
Pol. J. Chem.
Proc. Anal. Div. Chem. Soc.
Proc. Natl. Acad. Sci. U.S.A.
Pure Appl. Chem.

R

Radiat. Phys. Chem.
Recl. Trav. Chim. Pays-Bas

S

Science
Spectrochim. Acta, Part A/B
Synthesis
Synth. Commun.
Synth. Lett.

T

Talanta
Tetrahedron
Tetrahedron Lett.
Theor. Chim. Acta
Topics Curr. Chem.

V

Vitamins

Y

Yakugaku Zasshi

Z

Z. Anorg. Allg. Chem.
Z. Kristallogr., Kristalloggeom., Kristallphys., Kristallchem.
Z. Naturforsch., A/B/C
Z. Phys. Chem. (Leipzig)
Z. Phys. Chem. (Wiesbaden)
Zh. Neorg. Khim.
Zh. Obshch. Khim.
Zh. Org. Khim.

Appendix II. IUPAC Recommendations on Nomenclature, Symbols, and Terminology**I. Nomenclature of Organic Chemistry**

1. 'Nomenclature of Organic Chemistry, Sections A, B, C, D, E, F, and H; 1979 Edition' (The 'Blue Book'), IUPAC, Pergamon Press, Oxford, 1979.
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18. 'Nomenclature and Terminology of Fullerenes: A Preliminary Survey', *Pure Appl. Chem.* **1997**, 69, 1411.
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22. 'Revised Section F: Natural Products and Related Compounds (Recommendations 1999)', *Pure Appl. Chem.* **1999**, 71, 587.
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24. 'Glossary of Terms Used in Theoretical Organic Chemistry (Recommendations 1999)', *Pure Appl. Chem.* **1999**, 71, 1919.
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III. Nomenclature of Inorganic Chemistry, Analytical Nomenclature, and Electrochemistry

Inorganic Chemistry

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11. 'Nomenclature of Inorganic Chains and Ring Compounds (Recommendation 1997)', *Pure Appl. Chem.* **1997**, 69, 1659.
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4. 'Recommendation for Publication of Papers on Precipitation Methods of Gravimetric Analysis', *Pure Appl. Chem.* **1981**, 53, 2303.
5. 'Nomenclature for Thermal Analysis II and III', *Pure Appl. Chem.* **1980**, 52, 2385.
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12. 'Recommendations for the Presentation of the Results of Chemical Analysis', *Pure Appl. Chem.* **1969**, 18, 437.
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Electrochemistry

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IV. Physical Chemistry

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Appendix III. Some Symbols and Abbreviations Used by HCA

Designation	Symbol	Remarks
Amount-of-substance concentration or 'molarity' ^{a)}	M	in mol/dm ³ , e.g. 1M NaOH
Molality ^{a)}	<i>m</i>	in mol/kg; e.g. 1 <i>m</i> HCl
Normality ^{a)}	N	in equiv./dm ³ ; e.g. 1N H ₂ S
Percentage by mass	%	e.g. 15%
Percentage by volume	% (v/v)	e.g. 20% (v/v)
Melting point	m.p.	e.g. m.p. 157–158°
Boiling point	b.p.	e.g. b.p. 111–112°
Boiling point under a certain pressure	b.p./Torr	e.g. b.p. 65°/4 Torr
Freezing point	f.p.	e.g. f.p. 3°
Refractive index	<i>n</i>	e.g. <i>n</i> _D ²⁰ = 1.643
Relative density	<i>d</i>	e.g. <i>d</i> ₄ ²⁰ = 1.1811
Optical rotation ^{b)}	<i>α</i>	e.g. <i>α</i> = 0.73 (<i>l</i> = 0.1, neat)
Specific optical rotation ^{b)}	[<i>α</i>]	e.g. [<i>α</i>] _D ²⁵ = 108 (<i>c</i> = 3.42, CHCl ₃)
Molecular optical rotation ^{b)}	[<i>M</i>]	e.g. [<i>M</i>] ₅₉₈ ²³ = 380 (<i>c</i> = 1.52, H ₂ O)
Thin-layer chromatography	TLC	
Gas-liquid chromatography	GLC	
Liquid chromatography	LC	
Column chromatography	CC	
High-pressure (performance) liquid chromatography	HPLC	
Paper chromatography	PC	
Ultraviolet	UV	
Visible	VIS	
Circular dichroism	CD	
Optical rotatory dispersion	ORD	
Infrared (absorption)	IR	
Nuclear magnetic resonance of ¹ H	¹ H-NMR	
Nuclear magnetic resonance of ¹³ C	¹³ C-NMR	
Electron paramagnetic resonance	EPR	
Electron spin resonance	ESR	
Mass spectrum	MS	
Photoelectron spectroscopy	PES	
X-Ray photoelectron spectroscopy	XPES, ESCA	
Shoulder	sh	
Broad	br.	
Strong IR absorption	<i>s</i>	
Medium IR absorption	<i>m</i>	
Weak IR absorption	<i>w</i>	
Singlet	<i>s</i>	
Doublet	<i>d</i>	
Triplet	<i>t</i>	
Quadruplet	<i>q</i>	
Quintuplet	<i>quint.</i>	
Sextuplet	<i>sext.</i>	
Septuplet	<i>sept.</i>	
Multiplet	<i>m</i>	

^{a)} For a comprehensive discussion on the usage of the terms 'equivalent' and 'normal', see *Pure Appl. Chem.* **1978**, 50, 325.

^{b)} The symbol *c* is used in connection with the specific optical rotation [*α*]; it is defined as mass of substance (in g) in 100 ml of solution. The quantities *l* and *d* in [*α*] = 100 · *a*/*l* · *c* or [*α*] = *a*/*l* · *d* are given in dm and g/ml (kg/m³), respectively.

Appendix IV. *Some Acceptable Non-SI Units*

Physical quantity	Name of unit	Symbol of unit
Length	Ångström	Å
	Bohr radius	a_0
Volume	Liter	l
	Milliliter	ml
	Microliter	μl
Time	Minute	min
	Hour	h
	Day	d
Frequency	Hertz	Hz
	Megahertz	MHz
Mass	Gram	g
	Milligram	mg
	Microgram	μg
Pressure	Bar	bar
	Millibar	mbar
	Torr	Torr
Energy	Electronvolt	eV
	Hartree	H_a or E_a
Temperature	Degree Celsius	$^{\circ}\text{C}$
Dipole moment	Debye	D