



Guide for Authors

Contributions which fulfil the Aims and Scope of the journal will be welcomed from anywhere in the world. The language of the journal is English. All manuscripts should be written in the past tense and impersonal style.

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This journal is an international medium for the publication of original research reports and authoritative reviews on pharmaceutical and biomedical analysis. It covers the interdisciplinary aspects of analysis in the pharmaceutical and biomedical sciences, including relevant developments in analytical methodology, instrumentation, computation and interpretation. Submissions on novel applications focussing on drug purity and stability studies, pharmacokinetics, therapeutic monitoring, metabolic profiling; drug-related aspects of analytical biochemistry and forensic toxicology; quality assurance in the pharmaceutical industry are welcome.

Since classical UV-VIS methods (including derivative spectrophotometric and multi-wavelength measurements), solvent extraction, basic electroanalytical methods, titrimetry, etc. are

well established, studies in such areas are accepted for publication in exceptional cases only, if a unique and substantial advantage over presently known systems. Studies reported should be supported by a demonstration of the application of the method to real samples. No papers dealing with the determination of drugs in biological samples based merely on spiked samples are acceptable. In determining the suitability of submitted articles for publication, particular scrutiny will be placed on the degree of novelty and significance of the research and the extent to which it adds to existing knowledge in pharmaceutical and biomedical analysis. In all submissions to the journal, authors must address the question of how their proposed methodology compares with previously reported methods. A substantial body of work cannot be fractionated into different shorter papers.

The journal is directed towards the needs of academic, clinical, government and industrial analysis and presents a unique forum for the discussion of current developments at the interface between pharmaceutical, biochemical and clinical analysis.

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The following types of papers will be considered for publication:

Reviews: Authors wishing to submit a review should send a short synopsis to one of the editors before starting detailed work on a manuscript. The structure and presentation of a review article will normally be at the author's discretion. Reviews may be relatively short, i.e. dealing with a limited subject, or longer and more general in nature.

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Abstract: This should be a concise self-contained summary of the principal results of the work described, together with any essential experimental details.

Introduction: This should be a concise statement of the background to the work presented, including relevant earlier work, suitably referenced. The importance of the subject and reasons for the readers' presumed interest should be indicated.

Experimental (or Materials and Methods): This section should contain reasonably detailed accounts of materials and experimental procedures, and/or references to previously published methods used. Sufficient information should be provided to permit repetition of the work by other workers. When describing mixed solvents for chromatography, extraction or other purposes, the following convention must be adopted: solvent A–solvent B–solvent C (a:b:c, v/v/v) or (a:b:c, w/w/w) where a:b:c are the proportions (by volume or weight as appropriate) of the components A–C, respectively.

The method of preparation of buffers should be clearly expressed, with the pH value and molarity stated in parentheses, e.g. sodium acetate (pH 4.7; 0.1 M). For mixed solvent systems, it should be clearly stated whether the pH value quoted is the pH of the *original* aqueous component or the *apparent* pH (i.e. pH*) of the mixed solvent system. Typical examples of mobile phases employed in liquid chromatography might be: acetonitrile–sodium octylsulphate (10 mM)–sodium acetate (pH 4.7; 0.1 M) (25:25:50, v/v/v), and acetonitrile–sodium octylsulphate (10 mM)–sodium acetate (0.1 M) (25:25:50, v/v/v) (pH* 4.7). Discussion of the optimisation procedure for the proposed method/assay should be given in detail.

Results: The important results of the work should be clearly stated and illustrated where necessary by tables and figures. The latter should be kept to the minimum consistent with clarity. In particular figures showing linear analytical response curves are generally unnecessary, and will be deleted. The details of slope, intercept, standard error of slope, standard error of intercept, concentration range and number of standards are essential and they should be given in the text or tabulated. This section may also contain experimental detail such as that obtained when describing the development of new analytical procedures. It should include all relevant validation data, e.g. Specificity (Selectivity), Precision (repeatability, intermediate precision, reproducibility), Accuracy, Linearity, Range, Limit of detection, Limit of quantitation, Robustness, Ruggedness.

Discussion: The results, and their wider implications, should be fully discussed. In some cases, this section may conveniently be combined with the *Results* section.

Conclusions: Where appropriate, a section may be included, which concisely summarizes the principal conclusions of the work and highlights the wider implications. This section should not merely duplicate the abstract.

Acknowledgments: Where necessary, these should be given at the end of the paper.

References: Responsibility for the accuracy of bibliographic citations lies entirely with the authors.

Citations in the text: Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications should not be in the refer-

ence list, but may be mentioned in the text. The Author(s) should make clear that there is new valuable information in the submitted manuscript. Citation of a reference as 'in press' implies that the item has been accepted for publication.

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Text: Indicate references by number(s) in square brackets in line with the text. The actual authors can be referred to, but the reference number(s) must always be given.

Example: "... as demonstrated [3,6]. Barnaby and Jones [8] obtained a different result ..."

List: Number the references (numbers in square brackets) in the list in the order in which they appear in the text.

Examples:

Reference to a journal publication:

[1] J. van der Geer, J.A.J. Hanraads, R.A. Lupton, *J. Sci. Commun.* 163 (2000) 51–59.

Reference to a book:

[2] W. Strunk Jr., E.B. White, *The Elements of Style*, third ed., Macmillan, New York, 1979.

Reference to a chapter in an edited book:

[3] G.R. Mettam, L.B. Adams, in: B.S. Jones, R.Z. Smith (Eds.), *Introduction to the Electronic Age*, E-Publishing, Inc. New York, 1994, pp. 281–304.

Journal names should be abbreviated according to CAS (Chemical Abstracts Service).

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The correct format for citing a DOI is shown as follows (example taken from a document in the journal *Physics Letters B*):

doi:10.1016/j.physletb.2003.10.071

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TIFF:	Bitmapped line drawings: use a minimum of 1000 dpi.
TIFF:	Combinations bitmapped line/half-tone (colour or greyscale): a minimum of 500 dpi is required.
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ABBREVIATIONS

Absorbance	A	Electron spin resonance	ESR	Least squares regression	LS
Ad libitum	ad lib.	Electron volt	eV	Limit of detection	LOD
Adsorptive stripping voltammetry	AdSV	Electron capture detector	ECD	Limit of quantitation	LOQ
Alternating current	a.c.	Electron ionisation	EI	Litre	l
Ampere	A	Electrospray ionization	ESI	Liquid chromatography	LC
Analysis of variance	ANOVA	Enantiomeric excess	ee	Liquid secondary-ion mass spectrometry	LSIMS
Ångström	Å	Enzyme-linked immunosorbent assay	ELISA	Logarithm	log
Arbitrary unit(s)	A.U.	Enzyme-multiplied immunoassay technique	EMIT	Logarithm (natural)	ln
Artificial neural network	ANN	Enzyme immunoassay	EIA	Lumen	lm
Atmosphere	atm	Erg(s)	erg(s)	Luminescence immunoassay	LIA
Atmospheric-pressure chemical ionization	APCI	European Pharmacopeia	Ph. Eur.	Lux	lx
Atomic absorption spectroscopy	AAS	Evaporative light scattering	ELS	Magnetomotive force	m.m.f.
Atomic emission spectroscopy	AES	Factorial design	FD	Mass spectrometry	MS
Atomic weight	at. wt	Fast-atom bombardment	FAB	Mass-selective detector	MSD
Audio frequency	a.f.	Flame-ionization detection	FID	Matrix-assisted laser desorption ionisation	MALDI
Biological oxygen demand	BOD	Flow-injection analysis	FIA	Melting point	m.p.
Boiling point	b.p.	Fluorescence polarization immunoassay	FPIA	Mercury-drop-electrode	MDE
Bovine serum albumin	BSA	Food and Drug Administration	FDA	Metre	m
Calorie	cal	Fourier transform	FT	Micellar electrokinetic chromatography	MEKC
Candela	cd	Fractional factorial design	FFD	Microemulsion electrokinetic chromatography	MEEKC
Capillary electrochromatography	CEC	Freezing point	f.p.	Millilitre	ml
Capillary electrophoresis	CE	Full scan	FS	Millimolar concentration	mM
Capillary-zone electrophoresis	CZE	Gas chromatography	GC	Milliequivalent	mEq
Centimetre	cm	Gas-liquid chromatography	GC or GLC	Minute(s)	min
Central composite design	CCD	Gauss	G	Molar concentration	M
Centre of gravity	cg.	Good laboratory practice	GLP	Mole	mol
Chemical ionization	CI	Good manufacturing practice	GMP	Multiple-ion monitoring	MIM
Chemical reference substance	CRS	Gram	g	Near-infrared	NIR
Circa	ca	Graphite furnace	GF	Negative chemical ionization	NCI
Circular dichroism	CD	Gravitational acceleration	g	Neural network	NN
Company	Co.	Hanging-mercury-drop-electrode	HMDE	Newton	N
Corporation	Corp.	Henry	H	Nuclear Overhauser effect	NOE
Correlation coefficient	<i>r</i>	Hertz	Hz	Normal concentration	N
Coulomb	C	High-frequency	h.f.	Normal phase	NP
Counts per minute	cpm	High-performance liquid chromatography	LC or HPLC	Nuclear magnetic resonance	NMR
Counts per second	cps	High-performance thin-layer chromatography	HPTLC	Ohm	Ω
Cross-validation (-validated)	<i>cv</i>	Hour(s)	h	One-variable-at-a-time	OVAT
Cubic centimetre	cm ³	Human immunodeficiency virus	HIV	Optical rotatory dispersion	ORD
Cubic metre	m ³	Hydrophobic interaction chromatography	HIC	Organic volatile impurity	OVI
Curie	Ci	Inductively coupled plasma	ICP	Osmolar	OsM
Cycles per second	cs ⁻¹	Infrared	IR	Outside diameter	o.d.
Cyclodextrin	CyD	Intermediate frequency	i.f.	Overpressured layer chromatography	OPLC
Dalton	Da	Internal diameter	i.d.	Partial least-squares	PLS
Day(s)	d	International unit	I.U.	Particle induced X-ray emission	PIXE
Debye unit	D	International Conference on Harmonization	ICH	Parts per billion	ppb
Decibel	dB	International Organization for Standardization	ISO	Parts per million	ppm
Degrees		Ion exchange chromatography	IEC	Parts per trillion	ppt
Celsius	°C	Ion pair	IP	Pascal	Pa
Centigrade	°C	Ion-selective electrode	ISE	Phosphate-buffered saline	PBS
Kelvin	K	Isoelectric focusing	IEF	Picofarad	PF
Degree (temperature difference)	deg.	Isotachopheresis	ITP	Positive chemical ionization	PCI
Degrees of freedom	df	Japanese Pharmacopoeia	JP	Polyacrylamide	gel
Differential pulse	DP	Joule	J	electrophoresis	PAGE
Differential pulse polarography	DPP	Kilogram	kg	Pound(s)	lb
Differential scanning calorimetry	DSC	Kilowatt-hour	kWh	Principal component analysis	PCA
Diode-array detection	DAD			Probability	<i>P</i>
Direct current	d.c.			Proton magnetic resonance	¹ H-NMR
Disintegrations per minute	dpm			Quality assurance	QA
Disintegrations per second	dps				
Dyne	dyn				
Electromagnetic unit	e.m.u.				
Electromagnetic force	e.m.f.				
Electron Impact	EI				
Electron paramagnetic resonance	EPR				

Quality control	QC	Solid-phase microextraction	SPME	Total reflection X-ray	TXRF
Quantitative structure-activity relationship	QSAR	Square metre	m ²	fluorescence spectrometry	
		Square-wave	SW	Ultraviolet	UV
Radian	rad	Standard deviation	SD	Ultraviolet-visible	UV-VIS
Radioimmunoassay	RIA	Standard error of the mean	SEM	United States Pharmacopeia	USP
Radio-frequency	r.f.	Standard temperature and pressure	S.T.P.	U.S. adopted names	USAN
Relative humidity	r.h.	Static headspace	SH	U.S. Code of Federal Regulations	CFR
Relative standard deviation	RSD	Stripping voltammetry	SV	Versus	vs
Response surface methodology	RSM	Supercritical-fluid chromatography	SFC	Volt	V
Reversed-phase	RP	Supercritical-fluid extraction	SFE	Volt-ampere	VA
Revolutions per minute	rpm	Surface plasmon resonance	SPR	Volt-coulomb	VC
Root mean square	r.m.s.	Thermodynamic temperature	<i>T</i>	Volume	vol
Saturated calomel electrode	SCE	Thermogravimetric analysis	TGA	Volume by volume	v/v
Second(s)	s	Thermospray ionization	TSP	Watt	W
Scanning-electron microscopy	SEM	Thin-layer chromatography	TLC	Watt-hour	Wh
Sequential Injection Analysis	SIA	Time	<i>t</i>	Weber	Wb
Siemens	S	Time-resolved fluorescence	TRF	Weight	wt
Single-ion monitoring	SIM	Total organic carbon	TOC	Weight by volume	w/v
Size-exclusion chromatography	SEC	Total ion current	TIC	Weight by weight	w/w
Sodium dodecyl sulphate	SDS			X-ray powder diffraction	XRPD
Solid-phase extraction	SPE				

PREFIXES

Prefixes to the names of units

Multiplier	Prefix	Symbol
10 ⁻¹	deci	d
10 ⁻²	centi	c
10 ⁻³	milli	m
10 ⁻⁶	micro	μ
10 ⁻⁹	nano	n
10 ⁻¹²	pico	p
10 ⁻¹⁵	femto	f
10 ⁻¹⁸	atto	a
10	deca	da
10 ²	hecto	h
10 ³	kilo	k
10 ⁶	mega	M
10 ⁹	giga	G
10 ¹²	tera	T
10 ¹⁵	peta	P
10 ¹⁸	exa	E