

Environmental Chemistry

Standard Abbreviations

General

FT	Fourier transform
IR	infrared
FIR	far-IR
NIR	near-IR
UV	ultraviolet
UV/Vis	ultraviolet-visible
STP	standard temperature and pressure
id	internal diameter
od	outer diameter

Methods and Techniques—Spectroscopy and Microscopy

AAS	atomic absorption spectroscopy
CVAAS	cold vapour AAS
FAAS	flame AAS
HGAAS	hydride generation AAS
ICP	inductively coupled plasma
NMR	nuclear magnetic resonance
OES	optical emission spectroscopy
SEM	scanning/surface (reflection) electron microscopy
STM	scanning tunnelling (electron) microscopy
XRD	X-ray diffraction
XRF	X-ray fluorescence

Methods and Techniques—Mass Spectrometry

MS	mass spectrometry
EI	electron ionization
ESI	electrospray ionization
FAB	fast atom bombardment
ICP-MS	inductively coupled plasma-MS
MS/MS	MS coupled to MS
MS ⁿ	multiple mass spectrometry
SIMS	secondary ion mass spectrometry
TOF	time of flight

Methods and Techniques—Analysis, Assay, and Separation

CE	capillary electrophoresis
CZE	capillary zone electrophoresis
ELISA	enzyme linked immunosorbent assay
GC	gas chromatography
HRGC	high resolution GC
GC-MS	gas chromatography-mass spectrometry
NAA	neutron activation analysis
TLC	thin layer chromatography
HPTLC	high performance TLC
LC	liquid chromatography
HPLC	high performance LC
LC-MS	liquid chromatography-mass spectrometry
TGA	thermogravimetric analysis

Detection

DAD	diode array detector
FD	fluorescence detection
FID	flame ionization detector
FPD	flame photometric detector
LOD	limit of detection
LOQ	limit of quantification
ppb	parts per billion (10 ⁻⁹ ; ng g ⁻¹)
ppm	parts per million (10 ⁻⁶ ; µg g ⁻¹)
ppt	parts per trillion (10 ⁻¹² ; pg g ⁻¹)
SCE	standard calomel electrode

Data Processing and Statistics

ANOVA	analysis of variance
cpm	counts per minute
rms	root mean square
rpm	revolutions per minute
RSD	relative standard deviation
SIMCA	soft independent modelling of class analogy
S/N	signal-to-noise ratio
<i>r</i>	correlation coefficient
<i>s</i>	standard deviation of sample
σ	population standard deviation

Materials

CRM	certified reference material
DNA	deoxyribonucleic acid
EDTA	ethylenediamine tetraacetic acid
PAHs	polycyclic aromatic hydrocarbons
PCBs	polychlorinated biphenyls
PCDDs	polychlorinated dibenzo- <i>para</i> -dioxins
PCDFs	polychlorinated dibenzofurans
PTFE	polytetrafluoro ethylene
PVC	polyvinyl chloride
RNA	ribonucleic acid
SRM	standard reference material
TOC	total organic carbon
TMS	trimethylsilane
Tris	2-amino-2-(hydroxymethyl)-propane-1,3-diol

Organizations

AOAC	Association of Official Analytical Chemists
ASTM	American Society for Testing and Materials
CEN	European Committee for Standardization
EPA	Environmental Protection Agency
NIST	National Institute of Standards and Technology

Environmental

APCI	atmospheric pressure chemical ionization
API	atmospheric pressure ionization
BOD	biochemical oxygen demand
COD	chemical oxygen demand
DO	dissolved oxygen
TEQ	toxicity equivalent quotient