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ABBREVIATIONS AND SYMBOLS

A	soap film area
A	electrode area
A	peak area of analyte obtained by GC
C_0	concentration of a given analyte in the sample
F	Flux of transfer across soap film, mole/cm^{2}min
f	specific calibration factor of analyte
h	hour
K_{fs}	fiber coating-sample matrix distribution constant
K_{cell}	conductance cell constant
l	electrode length
n	mass of analyte extracted by the coating
n	permeation mole
V_f	fibre-coating volume
V_s	sample volume
s	second
S	siemens
t	flowing time
R	resistance, (Ω)
r_b	bubble radius
V_s	volume of the bubble making solution
α	separation factor

δ	film thickness
δ_{geom}	film thickness from geometrical consideration
$\vec{J}$	current density
$\vec{E}$	electrical field strength
Ω	ohm
τ	bubble age
μ	micro
CD	cyclodextrin
CT	polyurethane coiled tubing
CFLME	continuous-flow liquid membrane extraction
CE	capillary electrophoresis
DS	diffusion scrubber
IC	ion chromatograph
FID	frame ionization detector
GC	gas chromatograph
LCW	liquid core waveguide
LED	light emitting diode
MFC	mass flow controller
MMLLE	micro porous membrane liquid-liquid extraction
min	minute
NF	nanofiltration
PEEK	polyether ether ketone
PES	porous hydrophilic polyethersulfone

ppbv	volume by volume part per billion
PTFE	poly tetrafluoroethylene
sccm	standard cubic centimeters per minute
SDS	sodium dodecyl sulfate
SLM	supported liquid membrane
SPME	solid phase micro extraction
SPME-GC	solid phase micro extraction couple with gas chromatograph
SV	solenoid valve
SVP	solenoid valve pump
TX-100	triton X-100
tr	retention time