

List of frequently used abbreviation in this thesis

AAS	Atomic absorption spectrometry
AFS	Atomic fluorescence spectrometry
CID	Charge injection device
CSS	Compton suppression spectrometry
CTAB	Cetyltrimethylammonium bromide
DAB	3,3'-Diaminobenzidine
DMA	Dimethylarsonic acid
DPCSV	Differential pulse cathode stripping voltammetry
DSA	Digital spectrum analyser
DTPA	Diethylenetriamine pentaaceticacid
EDXRF	Energy dispersive X-ray fluorescence
EOB	End of bombardment
ETV-ICP-MS	Electrothermal vaporization inductively coupled plasma mass spectrometry
GBME	Graphite bar microextraction
GPMAS	Gas phase molecular absorption spectrometry
HDEHP	di-(2-ethylhexyl)phosphoric acid
HG	Hydride generation
HGAAS	Hydride generation atomic absorption spectrometry
HPGe	High-purity germanium
ICP	Inductively coupled plasma
ICP-AES	Inductively coupled plasma atomic emission spectrometry
ICP-OES	Inductively coupled plasma optical emission spectrometry
INAA	Instrumental neutron activation analysis

J-acid	6-amino-1-naphthol-3-sulphonic acid
LAMPF	Los alamos meson physics facility
LLX	Liquid-liquid extraction
MCA	Multichannel analyzer
MIP-OES	Microwave induced plasma optical emission spectrometry
MMA	Monomethylarsonic acid
NAA	Neutron activation analysis
NaI(Tl)	Sodium iodide (thallium-activated)
NCA	No carrier added
NIM	Nuclear instrument module
NIST	National Institute of Standards and Technology
NORM	Naturally occurring radioactive materials
PET	Positron emission tomography
PTFE	Polytetrafluoroethylene
PVP	Polyvinylpyrrolidone
RF	Radio frequency
SINP-CSS	Saha Institute of Nuclear Physics Compton suppressor spectrometry
SRMs	Standard reference materials
SS-HG	Slurry sampling-hydride generation
TBP	Triisobutylphosphate
TIOA	Triisooctylamine
TIMS	Thermal ionization mass spectrometry
TOA	Trioctylamine
WCAES	Tungsten coil atomic emission spectrometry
WDXRF	Wavelength dispersive X-ray fluorescence