
List of Abbreviation

Å	Angstrom
AFM	Atomic force microscopy
Am	Amide
APCVD	Atmospheric-pressure chemical vapour deposition
ATSDR	Agency for Toxic Substance and Disease Registry
Az	Azide
C-f-MWCNT	Chitosan functionalized multiwalled carbon nanotubes
BSA	Bovine serum albumin
Brij 98	Poly oxy ethylene Oleyl Ether
CCVD	Catalyst Chemical Vapour Deposition
CNTs	Carbon nanotubes
COD	Chemical oxygen demand
CVD	Chemical vapour deposition
DI	Deionized
DMF	Dimethyl formamide
DNA	Deoxyribonucleic acid
DWCNTs	Double walled carbon nanotubes
FTIR	Fourier Transform Infrared Spectroscopy
gm	Gram
IARC	International Agency for Research on Cancer
LMH	L/m ² /h
ml	Mililitre
MF	Microfiltration
FESEM	Field Emission Scanning Electron Microscopy

FRR	Flux recovery ratio
f-MWCNT	Functionalized multiwalled carbon nanotubes
MMM	Mixed-matrix membranes
MW	Molecular Weight
NF	Nanofiltration
NMR	Nuclear magnetic resonance
Ox	Oxidized
P	Total phosphorous
PANI	Polyaniline
PECVD	Plasma enhanced chemical vapour deposition
PEG	Polyethylene glycol
PES	Polyether sulfone
PI	Polyimide
PSf	Polysulfone
PTFE	Polytetrafluoroethylene
PVDF	Poly vinylidene fluoride
PVP	Poly vinyl pyrrolidone
PVA	Poly vinyl alcohol
PAN	Poly acrylonitrile
r-MWCNT	Raw multiwalled carbon nanotubes
R_{ir}	Irreversible fouling ratio
R_r	Reversible fouling ratio
RO	Reverse osmosis
SANS	Small angle neutron scattering
SEM	Scanning electron microscopy
SI-ATRP	Surface initiated atom transfer radical polymerization
Span 20	Sorbitan monolaurate

SPES	Sulfonated polyethersulfone
SWCNTs	Single walled carbon nanotubes
TGA	Thermo gravimetric analysis
TEM	Transmission electron microscopy
TFC	Thin film composite
TOC	Total organic carbon
N	Total nitrogen
Turb	Turbidity
UF	Ultrafiltration
UV	Ultra violet
Wt%	Weight percentage
WHO	World health organization
XPS	X-ray Photoelectron Spectroscopy
XRD	X-Ray diffraction