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LIST OF SYMBOLS AND ABBREVIATIONS

Symbols

Atm	-	Atmosphere
cm	-	Centimeter
ΔC	-	Concentration difference
C _f	-	Concentration of the feed
C _p	-	Concentration of the permeate
CA	-	Contact angle
DG	-	Degree of grafting
D	-	Diffusion coefficient
ΔU	-	Electrical Potential difference
R	-	Electrical resistance
J	-	Flux of NF membranes
T _g	-	Glass transition temperature
H	-	Hours
R _m	-	Hydraulic resistance of the membrane
kDa	-	Kilo Daltons
kPa	-	Kilopascal
kV	-	Kilovolt
M	-	Liquid viscosity
γ_{lv}	-	Liquid-vapour free energy
A	-	Membrane area
M	-	Meter
μg	-	Micro gram
μm	-	Micro meter

min	-	Minute
C_s	-	Molar concentration of the solute.
π	-	Osmotic Pressure
$\Delta\pi$	-	Osmotic pressure difference
Ppm	-	Parts per million
%SR	-	Percentage solute rejection
ΔP	-	Pressure difference
J_p	-	Protein flux after 60 min of filtration
J_0	-	Pure Water Flux (PWF)
J_1	-	PWF after hydraulic washing
J_2	-	PWF after chemical Cleaning
Q	-	Quantity of permeate collected
R_r	-	Reversible fouling
Rpm	-	Rotation per minute
Δt	-	Sampling time
γ_{sl}	-	Solid-liquid free energy
γ_{sv}	-	Solid-vapour free energy
$C_{s,0}$	-	Solute concentration
ΔT	-	Temperature difference
J_w	-	Water flux (in $\text{lm}^{-2} \text{h}^{-1}$)
W_a	-	Work of adhesion
Δa		Acidity gradient

Abbreviations

AA-g-PES	-	Acrylic acid grafted Polyethersulfone
FTIR	-	Attenuated total reflectance- fourier transform infrared spectroscopy
BSA	-	Bovine Serum Albumin
CP	-	Concentration polarization
DMF	-	Dimethyl formamide
EA	-	Egg Albumin
EIPS	-	Evaporation induced phase separation
FRC	-	Flux recovery after chemical cleaning
FRW	-	Flux recovery after hydraulic washing
FRR	-	Flux recovery ratio
FTIR	-	Fourier transform infrared spectroscopy
GS	-	Gas separation
IRF	-	Irreversible fouling
MF	-	Microfiltration
Mw	-	Molecular weight
MWCO	-	Molecular weight cut off
NF	-	Nanofiltration
NOM	-	Natural organic matter
NMP	-	N-methyl pyrrolidone
NVP-g-PES	-	N-vinyl pyrrolidone grafted Polyethersulfone
PEI	-	Polyetherimide
PES	-	Polyethersulfone
PWF	-	Pure water flux
RO	-	Reverse osmosis
RFC	-	Reversible fouling after chemical cleaning
RFW	-	Reversible fouling after hydraulic washing

SEM	-	Scanning electron microscopy
SLS	-	Sodium lauryl sulphate
TIPS	-	Thermally induced phase separation
TGA	-	Thermo gravimetric analysis
TFL	-	Total flux loss
UF	-	Ultrafiltration