## **Abbreviations**

CMC	Critical Micelle Concentration
HLB	Hydrophilic-Lipophilic Balance
BS	Biosurfactants
ST	Surface Tension
TLR	Toll-Like Receptors
MEOR	Microbial Enhanced Oil Recovery
EOR	Enhanced Oil Recovery
HSV	Herpes Simplex Virus
HIV	Human Immunodeficiency Virus
EPA	Environmental Protection Agency
BATH	Bacterial Adhesion To Hydrocarbons
HPLC	High Performance Liquid Chromatography
FTIR	Fourier Transform Infrared Spectroscopy
E 24	Emulsion Index
IR	Infrared
MS	Mass Spectroscopy
NMR	Nuclear Magnetic Resonance
rpm	Revolutions Per Minute
nm	Nanometer
hrs	Hours
RSM	Response Surface Methodology
$^{0}$ C	Degree Celsius
PBD	Plackett-Burman Design
CCD	Central Composite Design
DF	Degree Of Freedom
SS	Sum Of Squares
MS	Mean Square
RP-HPLC	Reversed-Phase High-Performance Liquid Chromatography
TLC	Layer Chromatography

## **Abbreviations**

PDA	Photodiode Array
TFA	Trifluoroacetic Acid
TOF-MS	Time Of Flight-Mass Spectrometer
ESI	Electrospray Ionization
$V_{\mathrm{frag}}$	Fragmentor Voltage
Da	Daltons
IFT	Interfacial Tension
$R_{\mathrm{f}}$	Retention Factor
AU	Absorbance Units
TIC	Total Ion Chromatogram
PV	Pore Volume
OOIP	Original Oil In Place
Sorbf	Oil Released From Sand Pack Column After Treatment With
	Biosurfactant
Sowf	Oil Retained After Brine Flooding
Soi %	Percent Initial Oil Saturation
Swi %	Percent Initial Water Saturation
Sor %	Percent Residual Oil Saturation
AOR %	Percent Additional Oil Recovery
AD	Alzheimer's Disease
Αβ	B-Amyloid Protein
RMSD	Root-Mean-Square Deviation
RMSF	Root-Mean-Square fluctuations
SASA	Solvent Accessible Surface Area
Rg	Radius Of Gyration
MD	Molecular Dynamics
NPT	Normal Pressure Temperature
NVT	Normal Volume Temperature
PS	Pulmonary Surfactant

## **Abbreviations**

LS	Lung Surfactant
DPPC	Dipalmitoyl-Phosphatidylcholine
RDS	Respiratory Distress Syndrome

## Units

```
N/m (Newton per metre)
g/l (gram/liter)
nm (nanometer)
g/cm<sup>3</sup> (gram/centimeter cube)
m<sup>3</sup> (meter cube)
μg/ml (microgram/milileter)
dyn/ cm (dyne per centimeter)
mg (miligram)
tons/cm<sup>2</sup> (tons/centimeter square)
μl (microleter)
ml/L (milileter/liter)
N (Normality)
cm<sup>-1</sup> (per centemetre)
v/v (Volume/volume)
pico second (ps)
ns nanosecond (ns)
```