

List of Abbreviations

AFM - Atomic Force Microscopy

BSA - Bovine Serum Albumin

BMP - Bone Morphogenic Protein

CCD - Charged Coupled Device

DC - Direct Current

DCM - Dichloromethane

DES - Drug Eluting Stent

ECM - Extracellular Matrix

EIMS - Electron Ionisation Mass Spectrometry

EM - Electromagnetic

EMCCD - Electron Multiplying Charged Coupled Device

ESCA - Electron Spectroscopy for Chemical Analysis

hES - Human Embryonic Stem cells

HPMC - Hydroxypropyl Methylcellulose

HT - High Throughput

IMFP - Inelastic Mean Free Path

LCST - Lower Critical Solution Temperature

LDPE - Low Density Polyethylene

MAF - Maximum Autocorrelation Factors

MCR - Multivariate Curve Resolution

MD - Molecular Dynamic

MM - Mixture Models

NN - Neuronal Networks

PAA - Poly(acid anhydride)

PBS - Phosphate Buffered Saline

PCA - Principal Component Analysis

PCL - Poly(ϵ -caprolactone)

PEA - Poly(ester amide)

PEC - Poly(ester carbonate)

PEG - Poly(ethylene glycol)

PES - Poly(ethylene succinate)

PGA - Poly(glycolide), Poly(glycolic acid)

PGALA - (Poly(glycolide-co-lactide), Poly(glycolic acid-co-lactic acid))

PHA - Poly(hydroxyalkanoate)

PHB - Poly(3-hydroxybutyrate)

PHEMA - Poly(2-hydroxyethyl methacrylate)

PLA - Poly(lactic acid)

PLS - Partial Least Squares

PNIPA - Poly(N-isopropylacrylamide)

POE - Poly(orthoester)

PSA - Poly(sebacic anhydride)

PVA - Polyvinyl Alcohol

QNM - Quantitative Nanomechanical Mode

RF - Radio Frequency

SEM - Scanning Electron Microscopy

SNMS - Sputtered Neutral Mass Spectrometry

SPR - Surface Plasmon Resonance

ToF-SIMS - Time of Flight - Secondary Ion Mass Spectrometry

UHV - Ultra High Vacuum

WCA - Water Contact Angle

XPS - X-ray Photoelectron Spectroscopy