

Biointerphases*Theory and Modeling*

- 4010 Ab initio theories
- 4011 Computer simulations, general
- 4012 Micro-and nano-fluidics (theory)
- 4013 Modeling of functional surfaces
- 4014 Modeling of molecular recognition
- 4015 Molecular dynamics simulation
- 4016 Monte Carlo Simulation
- 4017 Protein Modeling
- 4018 Theoretical and computational biophysics
- 4019 Theoretical treatments, general
- 4020 Water interaction with biomolecules and biointerfaces

Biophysics/Biophysical Chemistry

- 4050 Biolubrication
- 4051 Biophysics, general
- 4052 Conformational dynamics of biological macromolecules
- 4053 Ion-specific effects
- 4054 Lubrication
- 4055 Membrane biophysics
- 4056 Nano-mechanics
- 4057 Phase transitions
- 4058 Protein folding and unfolding
- 4059 Single molecule techniques
- 4060 Surface energetics
- 4061 Surface forces
- 4062 Thermodynamics
- 4063 Water at interfaces
- 4064 Wetting

Biomaterials

- 4100 Bacterial adhesion
- 4101 Biocompatible surfaces
- 4102 Biofilm Formation
- 4103 Biomaterials (general)
- 4104 Biomimetic or bioinspired materials
- 4105 Clinically related surface science
- 4106 Coatings for implants

Biointerphases

- 4107 Drug delivery systems
 - 4108 Implants, general
 - 4109 Marine fouling
 - 4110 Non-fouling surfaces
 - 4111 Thrombo-resistant surfaces
- Interface Chemistry*
- 4150 Adhesion, general
 - 4151 Adhesion receptors
 - 4152 Adsorption
 - 4153 Bioinert surfaces
 - 4154 Biomolecule immobilization
 - 4155 Fibrinolytic surfaces
 - 4156 Functional surfaces (general)
 - 4157 Hydrophobicity, hydrophilicity
 - 4158 Interfacial reactions
 - 4159 Layer-by-layer deposition
 - 4160 Micro- and nano patterning
 - 4161 Microfabrication
 - 4162 Plasma deposition
 - 4163 Polyelectrolytes
 - 4164 Polymers at surfaces
 - 4165 Protein patterning
 - 4166 Self-assembled monolayers (SAMs)
 - 4167 Self-assembly/self-organized structures
 - 4168 Stimulus responsive or dynamic materials and surfaces
 - 4169 Surface charges

Protein adsorption and immobilization

- 4200 Antigen-antibody interactions
- 4201 Plasma proteins
- 4202 Protein adsorption
- 4203 Protein aggregation
- 4204 Protein function
- 4205 Receptor-ligand interactions

Membranes and Vesicles

- 4250 Channels and nanopores
- 4251 Lipids
- 4252 Membranes

Biointerphases

- 4253 Model membranes
 - 4254 Nanocontainers / vesicles
 - 4255 Pores in membranes
 - 4256 Supported/tethered/suspended lipid membranes
 - 4257 Synthetic vesicles
- Cells, Tissue and Organs*
- 4300 Actin filaments
 - 4301 Amyloid formation
 - 4302 Blood
 - 4303 Cell adhesion
 - 4304 Cell biology (general)
 - 4305 Cell engineering
 - 4306 Cell locomotion
 - 4307 Cell mechanics
 - 4308 Cell scaffold
 - 4309 Cell-cell adhesion
 - 4310 Cellular signalling
 - 4311 Cytoskeleton
 - 4312 Extracellular matrix
 - 4313 Focal adhesion
 - 4314 Mechanotransduction
 - 4315 Microtubules
 - 4316 Morphogenesis
 - 4317 Platelets
 - 4318 Single cell techniques
 - 4319 Stem cells
 - 4320 Tissue engineering
 - 4321 Vascular systems
- Plants*
- 4350 Cellulose
 - 4351 Hemicellulose
 - 4352 Microfibril angle
 - 4353 Plant cell wall
 - 4354 Wood fibres
- Biomaterials*
- 4400 Bioceramics
 - 4401 Biomaterialization

Biointerphases*Characterization*

4450 Analytical electron microscopy
4451 Cryo-electron microscopy
4452 Electron tomography
4453 Electrophysiology
4454 Fluorescence spectroscopy and microscopy
4455 Fluorescent probes
4456 Gel electrophoresis
4457 Holography
4458 Imaging techniques
4459 NEXAFS
4460 Non-linear optical techniques
4461 QCM-D technique
4462 Scanning probe microscopy
4463 Secondary ion mass spectrometry (SIMS)
4464 Surface analysis
4465 Surface Force Measurements
4466 Surface plasmon optics
4467 Surface spectroscopy
4468 Surface vibrational spectroscopy
4469 Synchrotron radiation
4470 TIRF – total internal reflection fluorescence
4471 Transmission electron microscopy
4472 XPS
4473 X-ray and neutron techniques

Biosensors

4500 Biochips
4501 Biosensing using optical transducer principles
4502 Coatings for sensing applications-biochips
4503 Evanescent wave optics
4504 in vitro sensor
4505 in vivo sensor
4506 Lab-on-chip
4507 Micro- and nano-fluidics
4508 sensor design
4509 sensor fabrication

Biointerphases*Chemistry*

4550 Biochemistry
4551 Colloids
4552 Emulsions
4553 Gels
4554 Host-guest systems
4555 Magnetic particles
4556 Microemulsions
4557 Molecular recognition
4558 Nanoparticles / quantum dots
4559 Polymers
4560 Protein engineering
4561 Supramolecular chemistry