

Keyword Index for Society For Biomaterials 2009 Annual Meeting and Exposition

- absorbable 169, 330, 332, 333, 413, 415, 495, 519, 522, 533, 639
- adhesion 140, 210, 214, 256, 297, 33, 348, 378, 421, 470, 568, 573, 682
- adsorption 239, 445, 598, 703
- angiogenesis/neovascularization 102, 141, 153, 161, 183, 260, 300, 322, 323, 454, 47, 56, 651, 695, 98
- animal model 185, 220, 27, 298, 328, 530, 535, 57
- antimicrobial 33, 35, 38, 497, 499, 525, 587, 590, 591, 592, 594, 596, 64, 679
- arthroplasty 243, 294, 362, 507, 592
- articular cartilage 133, 410, 469, 68, 689, 90
- artificial skin 404, 418
- atomic force microscopy 190, 199, 20, 327, 331, 335, 434, 445, 595, 628
- bacterial adherence 104, 33, 331, 36, 37, 419
- bearing surfaces 242, 243, 293, 409, 457, 65, 71, 77
- bioactive glass 108, 555, 663, 715
- bioactive material 117, 123, 141, 160, 181, 210, 260, 269, 29, 300, 396, 405, 422, 426, 431, 466, 513, 520, 537, 557, 562, 570, 58, 591, 630, 634, 674, 682, 685, 79, 80, 85, 94
- biocompatibility/hard tissue 148, 288, 32, 400, 481, 496, 501, 540, 629, 643, 655, 669
- biocompatibility/soft tissue 107, 147, 191, 192, 193, 219, 262, 306, 320, 400, 631, 696
- biodegradation 148, 174, 179, 237, 280, 32, 324, 339, 355, 381, 480, 483, 506, 565, 621, 631, 642, 678, 83, 90
- biological fluids 367, 668
- biomarker 224

biomaterials availability 431, 481, 636, 673, 74

biomechanics 144, 171, 180, 195, 241, 324, 392, 411, 488, 532, 535, 575, 605, 64, 641, 656

biomimetic 112, 115, 116, 118, 119, 120, 121, 122, 123, 124, 13, 15, 156, 159, 165, 172, 196, 203, 254, 259, 297, 298, 301, 302, 303, 309, 34, 378, 398, 412, 425, 426, 428, 429, 433, 437, 549, 588, 661, 691, 7, 86

biomolecular engineering 115, 376, 425, 9

bioresorbable 123, 228, 233, 350, 504, 514, 520, 527, 557, 561, 616, 62, 655, 662

biosensors/biochips 153, 154, 156, 157, 158, 321, 429, 434, 435, 55, 696, 703

block copolymer 190, 191, 193, 201, 205, 312, 36, 537, 539, 674, 683

blood-material interaction 17, 18, 19, 22, 23, 248, 299, 338, 437, 440, 441, 444, 447, 449, 450, 598

blood-material interface 105, 173, 24, 394, 449

bone 158, 196, 227, 27, 305, 309, 31, 420, 451, 454, 460, 472, 487, 512, 515, 522, 534, 540, 601, 8

bone cement (= PMMA, acrylic) 150, 295, 296, 356, 357, 358, 359, 360, 365, 406, 407, 514, 519, 578, 592, 64

bone graft 26, 28, 29, 31, 481, 517, 518, 521, 523, 526, 528, 529, 530, 531, 667

bone ingrowth 106, 25, 264, 669

bone marrow 458

bone remodeling 151, 570, 611, 639, 664

calcification 220, 221, 265, 699

calcium phosphate(s) 116, 196, 219, 339, 397, 398, 401, 427, 490, 496, 508, 512, 522, 523, 524, 525, 529, 531, 550, 625, 655, 711

calcium salts/compounds 513, 514

cancer 224

carbon 541

cardiovascular 11, 173, 182, 221, 222, 223, 265, 279, 554, 610, 677, 713, 87, 93
cartilage 112, 149, 152, 257, 258, 280, 287, 505, 603, 608, 609, 612, 618, 693, 709, 92, 99
cell adhesion 113, 199, 2, 277, 402, 428, 430, 448, 453, 46, 462, 469, 480, 552, 558, 588, 617, 676, 680, 700
cell culture 115, 218, 253, 454, 460, 466, 470, 471, 486, 487, 510, 511, 618, 704, 714
cell differentiation 100, 110, 125, 219, 246, 255, 279, 45, 464, 585, 686, 689, 691, 697, 706, 71, 86
cell therapy 507
cell-cell interactions 126, 232, 282, 478, 710, 713
cell-material interactions 108, 110, 113, 126, 129, 130, 131, 132, 133, 146, 150, 160, 161, 163, 164, 2, 206, 216, 221, 23, 230, 24, 249, 251, 255, 275, 277, 288, 303, 374, 388, 391, 403, 42, 44, 448, 453, 455, 457, 461, 462, 467, 469, 472, 473, 474, 475, 477, 485, 490, 496, 51, 554, 558, 583, 588, 594, 599, 602, 610, 613, 615, 627, 644, 652, 660, 676, 683, 685, 686, 688, 693, 696, 700, 702, 705, 707, 73, 75, 82, 83, 84
ceramic 513, 574
clinical 420, 493
coagulation 447
coagulation factors 17
coating(s) 122, 173, 190, 274, 342, 343, 35, 397, 401, 500, 540, 573, 577, 580, 582, 596, 715
cobalt-chromium (alloys) 294, 370, 479, 562, 566, 573, 577, 701
collagen 1, 111, 116, 168, 263, 385, 388, 421, 484, 650, 652, 662, 666
composite/hard tissue 28, 515, 520, 561, 565, 581, 611, 639, 663, 76
composite/soft tissue 166, 170, 354, 610
computational fluid dynamics 178, 486
computer modeling/simulation 179, 180, 181, 323, 329, 483, 488, 599

connective tissue 289, 88

contact lens 13

controlled release 102, 103, 15, 200, 25, 269, 276, 326, 337, 349, 351, 354, 396, 495, 497, 498, 500, 505, 508, 547, 56, 98

cornea/conjunctiva 141

corrosion 139, 370

craniofacial 185, 646

creep 492

crystallinity 137, 67, 712

cytokines 453, 456, 54, 689

cytotoxicity 474

degradation 14, 151, 169, 253, 524, 534, 616, 634, 657, 665, 67, 709

demineralized 530

Dendritic cell 49

dental/craniofacial material 183, 184, 185, 187, 188, 228, 27, 489, 491, 493, 524, 531

dental/endosteal implant 401, 489

dermal substitutes 553

dermal wound dressing 160, 212, 417

diabetes 284, 372

drug delivery/release 101, 102, 104, 11, 122, 13, 14, 15, 16, 204, 205, 208, 217, 226, 234, 267, 268, 269, 270, 271, 272, 273, 274, 276, 312, 330, 334, 336, 337, 339, 341, 342, 343, 345, 346, 347, 348, 349, 350, 351, 352, 353, 355, 382, 396, 495, 499, 504, 506, 508, 509, 511, 512, 516, 521, 525, 543, 547, 548, 564, 57, 587, 589, 59, 590, 61, 62, 637, 672, 677, 9, 95, 96

education/instruction 391

electrical stimulation 104, 163, 209, 211, 264, 327, 389, 412, 545

electrodes 251, 705, 714

embolization 222, 223

encapsulated cells 164, 383, 656, 82, 90

endothelial cells 230, 252, 430, 467, 468, 473, 713

endothelialization 135, 138, 142, 19, 218, 303

enzyme(s) 174, 555

epithelial cells 202, 256

extracellular matrix 120, 132, 235, 266, 304, 387, 400, 42, 471, 473, 475

failure analysis 244, 605

fatigue 139, 578, 584, 78

fiber 117, 215, 455, 666, 697

fibrin 208, 30, 47, 56, 623, 695, 95

fibrinogen 120, 443, 445, 595

fibroblasts 395, 650

fibronectin/vitronectin 256, 427

finite element analysis 182, 485

fixation 291, 536

foreign body reactions (response) 145, 153, 154, 374, 45, 52

fracture 479

fracture fixation 292, 679

fracture toughness 578

FTIR 222

gene therapy/gene delivery 10, 167, 201, 203, 273, 341, 402, 54, 63, 670, 673, 675, 684, 708, 99

genetic engineering 304

glow discharge (RF/Plasma) 699

glycolide 414

gold 439

graft/copolymer 200, 341, 359, 518, 81

growth factor 103, 133, 262, 30, 360, 468, 509, 510, 553, 58, 59, 80

heart valve 134, 171, 4

hemocompatibility 438, 441, 442, 444, 446

hemostasis 182, 338, 81

heparin 264, 608, 672, 97

heparin-like 439

hip prosthesis 242, 247, 290, 363, 364, 366, 420, 521, 574, 69, 70

histomorphometry 669

hydrogel 1, 103, 109, 117, 131, 142, 146, 152, 159, 167, 168, 177, 214, 229, 232, 250, 253, 254, 267, 281, 283, 285, 287, 300, 345, 349, 399, 416, 44, 463, 465, 478, 498, 502, 527, 586, 608, 609, 618, 62, 620, 627, 63, 631, 634, 642, 644, 646, 653, 660, 675, 677, 678, 692, 708, 709, 83, 92, 97

hydrophilic 552, 593

hydrophobic 593

hydroxyapatite 121, 188, 194, 195, 238, 28, 311, 405, 411, 562, 580, 581, 584, 632, 637, 640, 649, 711

hydroxyapatite 72

imaging 224

immobilization 231, 236, 299, 7

immune response 128, 150, 21, 297, 369, 371, 372, 373, 376, 378, 379, 380, 381, 382, 391, 50, 51, 52, 53, 54, 546, 591, 602

immunoassay(s) 325, 456, 55, 690
immunohistochemistry 325
Immunotherapeutic 49
implant design 105, 257, 532, 604, 70
implant interface 154, 247, 291, 39, 394, 597, 694, 705
implant retrieval 245, 247, 290, 37
in vitro 225, 282, 347, 351, 417, 418, 474, 509, 535, 561, 614, 629, 630, 646, 670, 675, 684, 704, 707, 712
in vivo 212, 214, 272, 273, 319, 322, 352, 5, 501, 516, 52, 59, 6, 651, 667, 93
infection 114, 350, 38, 40
inflammation 21, 234, 340, 371, 373, 5, 53, 57
integrins 127, 130, 338, 374
interface(s) 114, 146, 370, 489, 583
interleukin(s) 128
intervertebral disk 289, 536
joint replacement 241
knee prosthesis 294, 482, 579
laser 12, 249, 476
leukocyte 369, 373
ligament(s) 107
mammary 706
matrix 215, 46, 623, 644, 647, 653
mechanical properties 1, 134, 142, 152, 169, 176, 187, 191, 233, 263, 278, 287, 289, 292, 327, 335, 361, 408, 463, 465, 48, 485, 493, 506, 527, 565, 566, 609, 612, 619, 633, 640, 646, 692, 92

membrane 476

meniscus 408

metal (alloys) 197

metal ions 369

microdamage 8

micromotion 291

microscopy 225, 319, 320, 325, 41, 470

microspheres 14, 145, 155, 177, 204, 340, 353, 365, 379, 381, 383, 436, 79, 94

microstructure 197, 198, 232, 320, 336, 364, 4, 462, 566, 661

mineralization 458, 526, 643

molecular imaging 3, 310, 539, 556, 9

molecular modeling 484, 604

molecular weight 712

morphology 198

muscle 286, 471, 702

nanoassembled devices 156, 275, 450, 503

nanobiology 321, 376

nanomaterials/nanophase 118, 129, 137, 143, 230, 231, 239, 252, 276, 285, 288, 305, 307, 309, 310, 311, 344, 380, 405, 416, 541, 542, 548, 551, 552, 560, 603, 620, 7, 708

nanomedicine 10, 114, 135, 225, 226, 228, 274, 275, 306, 310, 312, 390, 50, 537, 539, 542, 543, 547, 548, 550, 6, 601, 670, 672, 81

nanomodified surfaces 251, 359, 386, 544, 558, 665, 680, 681, 688, 690, 700

nanotechnology 100, 11, 124, 131, 203, 227, 238, 259, 321, 329, 346, 393, 404, 490, 492, 499, 50, 542, 543, 546, 549, 556, 560, 607, 652, 91

nerve regeneration 132, 206, 207, 208, 209, 211, 261, 384, 385, 386, 387, 388, 389, 390, 463, 61

neural prosthesis 209

neurons 155, 390, 403, 436, 48, 680, 704, 714

ocular 298

ophthalmic 109

orthopedic 143, 147, 148, 195, 227, 285, 292, 311, 328, 393, 399, 407, 409, 410, 421, 457, 518, 545, 560, 575, 68, 698, 75, 85

osteogenesis 100, 144, 29, 356, 358, 360, 394, 466, 510, 516, 517, 601, 614

osteolysis 246, 293

osteoporosis 305

oxidation 340, 564, 571

particulate debris 356, 357, 358

pathology 456

PEEK 579, 580, 581, 582, 584, 73, 74, 75, 77, 78

percutaneous 352, 40, 575

permeability 202, 602, 632, 646, 647

phase separated polymer 175, 177, 238

plasma spray 76

platelet 183, 441

Poly(styrene-b-isobutylene-b-styrene) 189

polyetheretherketone 72

polyethylene (UHMWPE) 198, 290, 361, 362, 366, 375, 567, 569, 571, 576, 66, 67

polymer 118, 137, 138, 151, 179, 181, 204, 211, 217, 234, 268, 278, 334, 346, 35, 355, 377, 379, 382, 389, 41, 431, 483, 497, 519, 538, 55, 594, 606, 621, 625, 638, 668, 679, 68, 694, 710, 74

polymerization 187, 188, 362, 407, 503

polyurethane(s) 119, 126, 165, 174, 175, 176, 20, 213, 22, 233, 237, 25, 296, 32, 423, 444, 467, 60, 616, 633, 664, 69, 87, 93, 96

porosity 39, 623, 635, 654, 711

porous coated 397, 40, 635

protein adsorption 20, 22, 308, 423, 440, 442, 443, 448, 449, 450, 500, 529, 593, 595, 597, 599, 604, 681, 683

protein conformation 236, 425

radiation 332, 538, 559

regenerative medicine 149, 178, 213, 260, 266, 30, 304, 501, 60

rigidity 113, 128

scaffold 72

scaffolds 101, 110, 111, 112, 121, 124, 147, 170, 180, 2, 206, 215, 229, 254, 255, 258, 26, 261, 262, 263, 265, 266, 278, 281, 286, 393, 398, 486, 504, 505, 515, 534, 554, 58, 585, 605, 607, 611, 614, 617, 619, 620, 622, 624, 625, 626, 628, 629, 63, 633, 636, 638, 640, 643, 648, 649, 650, 651, 653, 654, 656, 657, 659, 661, 663, 664, 665, 667, 687, 82, 88, 91

SIBS 189

silicone(s) PDMS 175, 284, 476, 596, 606, 703

smart materials 201, 202, 205, 250, 281, 306, 399, 498, 550, 563, 570, 678, 84

spinal implant 207, 406, 412, 532, 536, 76, 77

stability 231, 240, 268, 308, 377, 440

stainless steel 136, 271, 563

stem/progenitor cells 129, 145, 162, 166, 23, 246, 280, 301, 31, 357, 383, 384, 386, 41, 42, 43, 44, 45, 46, 461, 464, 465, 47, 48, 502, 517, 603, 682, 684, 686, 687, 688, 691, 693, 695, 697, 95, 98

stents 136, 140, 330, 332, 333, 334, 336, 452

strain 158, 184

stress 170, 184, 451

surface analysis 361, 438, 597

surface characterization 106, 140, 199, 235, 236, 237, 239, 240, 3, 380, 402, 437, 458, 541, 544, 577, 692, 698, 701, 715

surface modification 12, 127, 136, 162, 17, 18, 186, 207, 240, 249, 250, 271, 299, 308, 344, 36, 37, 372, 419, 423, 430, 434, 438, 439, 442, 443, 447, 455, 475, 480, 491, 494, 528, 544, 551, 556, 568, 583, 585, 600, 606, 666, 676, 681, 685, 690, 694, 701, 702, 73, 84, 85

sustained release 270, 344, 347, 348, 422

suture 413, 424, 533

tears 324

tendon prosthesis 111, 125, 392

test method 342, 343, 406

Thermoplastic elastomer 189

thrombogenicity 18, 19, 598

tissue adhesion 106, 414

tissue culture 186, 193, 282, 491, 494

tissue engineering 101, 107, 108, 109, 119, 130, 134, 143, 144, 149, 159, 171, 172, 176, 178, 192, 216, 220, 229, 252, 257, 258, 259, 26, 277, 279, 284, 286, 302, 319, 329, 371, 384, 385, 387, 392, 395, 4, 404, 410, 411, 43, 451, 464, 488, 502, 51, 511, 586, 607, 612, 615, 621, 624, 626, 630, 632, 635, 636, 637, 638, 641, 646, 648, 649, 654, 658, 660, 662, 671, 687, 699, 706, 707, 710, 79, 86, 87, 88, 89, 91, 94, 99

titanium (alloys) 127, 162, 163, 186, 194, 426, 427, 428, 477, 479, 487, 494, 528, 545, 546, 551, 564, 568, 582, 622

total joint replacement 366, 567, 569, 571, 574, 66, 71
toxicity 155, 436, 642
tribology 241, 363, 452
tumor 10, 12, 226, 270, 272, 345, 353, 478, 563, 617, 674
umbilical 125, 647, 659
urology/urological engineering 165, 166, 167, 168, 333, 589
Vaccine 49
vascular 301, 302, 335, 452, 468, 586, 641, 648, 80, 96, 97
vascular graft 172, 24, 248, 615, 659, 89
vascular prosthesis 105, 197, 218
vascular stents 135, 138, 139, 248
vertebral 295, 296, 523
viscoelastic 367, 409, 484, 619, 668
viscosity 367, 492
wear 242, 243, 363, 364, 375, 567, 569, 576, 579, 65, 66, 69, 70
wear debris 21, 245, 293, 375, 507, 572, 576, 65
women's health 337, 435, 587, 590
wound dressings 354, 38, 416, 418, 419
wound healing 212, 213, 216, 217, 328, 39, 395, 415, 417, 422, 43, 53, 553, 60
zirconia 698