Michele Iafisco

List of Publications by Year
in descending order

129 papers	4,570 citations	87888 38 h-index	123424 61 g-index
132 all docs	132 docs citations	132 times ranked	5699 citing authors

#	Article	IF	Citations
1	Biomimetic Hydroxyapatiteâ€“Drug Nanocrystals as Potential Bone Substitutes with Antitumor Drug Delivery Properties. Advanced Functional Materials, 2007, 17, 2180-2188.	14.9	304
2	Progress on the preparation of nanocrystalline apatites and surface characterization: Overview of fundamental and applied aspects. Progress in Crystal Growth and Characterization of Materials, 2013, 59, 1-46.	4.0	219
3	Crystallization of bioinspired citrate-functionalized nanoapatite with tailored carbonate content. Acta Biomaterialia, 2012, 8, 3491-3499.	8.3	134
4	Inhalation of peptide-loaded nanoparticles improves heart failure. Science Translational Medicine, 2018, 10, .	12.4	132
5	Magnetic Bioinspired Hybrid Nanostructured Collagenâ€“Hydroxyapatite Scaffolds Supporting Cell Proliferation and Tuning Regenerative Process. ACS Applied Materials & Interfaces, 2014, 6, 15697-15707.	8.0	119
6	Amino acid synergetic effect on structure, morphology and surface properties of biomimetic apatite nanocrystals. Acta Biomaterialia, 2009, 5, 1241-1252.	8.3	118
7	Surface Enamel Remineralization: Biomimetic Apatite Nanocrystals and Fluoride Ions Different Effects. Journal of Nanomaterials, 2009, 2009, 1-9.	2.7	106
8	Influence of Hydroxyapatite Nanoparticles on Germination and Plant Metabolism of Tomato (Solanum) Tj ETQq0 0 0 rgBT /Overlock 10 T	3.6	94
9	Fluoride-doped amorphous calcium phosphate nanoparticles as a promising biomimetic material for dental remineralization. Scientific Reports, 2018, 8, 17016.	3.3	90
10	Bioinspired negatively charged calcium phosphate nanocarriers for cardiac delivery of MicroRNAs. Nanomedicine, 2016, 11, 891-906.	3.3	89
11	pH-Responsive Delivery of Doxorubicin from Citrateâ€“Apatite Nanocrystals with Tailored Carbonate Content. Langmuir, 2013, 29, 8213-8221.	3.5	88
12	Smart delivery of antitumoral platinum complexes from biomimetic hydroxyapatite nanocrystals. Journal of Materials Chemistry, 2009, 19, 8385.	6.7	84
13	Surface Hydration and Cationic Sites of Nanohydroxyapatites with Amorphous or Crystalline Surfaces: A Comparative Study. Journal of Physical Chemistry C, 2010, 114, 16640-16648.	3.1	81
14	Synergistic effects of bisphosphonate and calcium phosphate nanoparticles on peri-implant bone responses in osteoporotic rats. Biomaterials, 2014, 35, 5482-5490.	11.4	79
15	Adsorption and Conformational Change of Myoglobin on Biomimetic Hydroxyapatite Nanocrystals Functionalized with Alendronate. Langmuir, 2008, 24, 4924-4930.	3.5	78
16	Cell Surface Receptor Targeted Biomimetic Apatite Nanocrystals for Cancer Therapy. Small, 2013, 9, 3834-3844.	10.0	76
17	The role of biomimetism in developing nanostructured inorganic matrices for drug delivery. Expert Opinion on Drug Delivery, 2008, 5, 861-877.	5.0	75
18	Magnetic Bioactive and Biodegradable Hollow Fe-Doped Hydroxyapatite Coated Poly(<scp>l</scp>-lactic) Acid Micro-nanospheres. Chemistry of Materials, 2013, 25, 2610-2617.	6.7	70

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19	Nanocrystalline carbonate-apatites: role of Ca/P ratio on the upload and release of anticancer platinum bisphosphonates. Nanoscale, 2012, 4, 206-217.	5.6	68
20	Nanomedicine Approaches for the Pulmonary Treatment of Cystic Fibrosis. Frontiers in Bioengineering and Biotechnology, 2019, 7, 406.	4.1	65
21	Synergistic Release of Crop Nutrients and Stimulants from Hydroxyapatite Nanoparticles Functionalized with Humic Substances: Toward a Multifunctional Nanofertilizer. ACS Omega, 2020, 5, 6598-6610.	3.5	65
22	Biomimetic magnesiumâ€“carbonate-apatite nanocrystals endowed with strontium ions as anti-osteoporotic trigger. Materials Science and Engineering C, 2014, 35, 212-219.	7.3	64
23	Synthetic Biomimetic Carbonate-Hydroxyapatite Nanocrystals for Enamel Remineralization. Advanced Materials Research, 0, 47-50, 821-824.	0.3	61
24	Superparamagnetic iron-doped nanocrystalline apatite as a delivery system for doxorubicin. Journal of Materials Chemistry B, 2016, 4, 57-70.	5.8	61
25	Evolving application of biomimetic nanostructured hydroxyapatite. Nanotechnology, Science and Applications, 2010, 3, 107.	4.6	60
26	Crystallization of citrate-stabilized amorphous calcium phosphate to nanocrystalline apatite: a surface-mediated transformation. CrystEngComm, 2016, 18, 3170-3173.	2.6	60
27	Fe-Doping-Induced Magnetism in Nano-Hydroxyapatites. Inorganic Chemistry, 2017, 56, 4446-4458.	4.0	60
28	The growth mechanism of apatite nanocrystals assisted by citrate: relevance to bone biomineralization. CrystEngComm, 2015, 17, 507-511.	2.6	58
29	Silica xerogels and hydroxyapatite nanocrystals for the local delivery of platinumâ€“bisphosphonate complexes in the treatment of bone tumors: A mini-review. Journal of Inorganic Biochemistry, 2012, 117, 237-247.	3.5	56
30	Hydroxyapatite nanocrystals functionalized with alendronate as bioactive components for bone implant coatings to decrease osteoclastic activity. Applied Surface Science, 2015, 328, 516-524.	6.1	55
31	Biomimetic Carbonateâ€“Hydroxyapatite Nanocrystals Prepared by Vapor Diffusion. Advanced Engineering Materials, 2010, 12, B218.	3.5	52
32	Adsorption and spectroscopic characterization of lactoferrin on hydroxyapatite nanocrystals. Dalton Transactions, 2011, 40, 820-827.	3.3	51
33	On the use of superparamagnetic hydroxyapatite nanoparticles as an agent for magnetic and nuclear in vivo imaging. Acta Biomaterialia, 2018, 73, 458-469.	8.3	49
34	Conjugation of hydroxyapatite nanocrystals with human immunoglobulin G for nanomedical applications. Colloids and Surfaces B: Biointerfaces, 2012, 90, 1-7.	5.0	48
35	Synthesis and Preliminary in Vivo Evaluation of Well-Dispersed Biomimetic Nanocrystalline Apatites Labeled with Positron Emission Tomographic Imaging Agents. ACS Applied Materials & Interfaces, 2015, 7, 10623-10633.	8.0	42
36	Synthetic chrysotile nanocrystals as a reference standard to investigate surface-induced serum albumin structural modifications. Journal of Colloid and Interface Science, 2007, 314, 389-397.	9.4	41

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37	Conformational modifications of serum albumins adsorbed on different kinds of biomimetic hydroxyapatite nanocrystals. Colloids and Surfaces B: Biointerfaces, 2010, 81, 274-284.	5.0	41
38	Amino Acidic Control of Calcium Phosphate Precipitation by Using the Vapor Diffusion Method in Microdroplets. Crystal Growth and Design, 2011, 11, 4802-4809.	3.0	41
39	Electrostatic Spray Deposition of Biomimetic Nanocrystalline Apatite Coatings onto Titanium. Advanced Engineering Materials, 2012, 14, B13.	3.5	40
40	Silica Gel Template for Calcium Phosphates Crystallization. Crystal Growth and Design, 2009, 9, 4912-4921.	3.0	39
41	Bisphosphonateâ€Functionalized Imaging Agents, Antiâ€Tumor Agents and Nanocarriers for Treatment of Bone Cancer. Advanced Healthcare Materials, 2017, 6, 1601119.	7.6	39
42	Fabrication and Pilot In Vivo Study of a Collagen-BDDGE-Elastin Core-Shell Scaffold for Tendon Regeneration. Frontiers in Bioengineering and Biotechnology, 2016, 4, 52.	4.1	38
43	Strontium doped calcium phosphate coatings on poly(etheretherketone) (PEEK) by pulsed electron deposition. Surface and Coatings Technology, 2017, 319, 191-199.	4.8	38
44	Electrospun Nanostructured Fibers of Collagen-Biomimetic Apatite on Titanium Alloy. Bioinorganic Chemistry and Applications, 2012, 2012, 1-8.	4.1	36
45	Calcium phosphate-based nanosystems for advanced targeted nanomedicine. Drug Development and Industrial Pharmacy, 2018, 44, 1223-1238.	2.0	35
46	Magnetic calcium phosphates nanocomposites for the intracellular hyperthermia of cancers of bone and brain. Nanomedicine, 2019, 14, 1267-1289.	3.3	35
47	Magnetic Labelling of Mesenchymal Stem Cells with Iron-Doped Hydroxyapatite Nanoparticles as Tool for Cell Therapy. Journal of Biomedical Nanotechnology, 2016, 12, 909-921.	1.1	34
48	Effect of hydroxyapatite nanocrystals functionalized with lactoferrin in osteogenic differentiation of mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2015, 103, 224-234.	4.0	33
49	Biomimetic mineralization of recombinant collagen type I derived protein to obtain hybrid matrices for bone regeneration. Journal of Structural Biology, 2016, 196, 138-146.	2.8	33
50	Bioinspired Citrateâ€“Apatite Nanocrystals Doped with Divalent Transition Metal Ions. Crystal Growth and Design, 2016, 16, 145-153.	3.0	32
51	The Remineralizing Effect of Carbonate-Hydroxyapatite Nanocrystals on Dentine. Materials Science Forum, 2007, 539-543, 602-605.	0.3	30
52	On the surface effects of citrates on nano-apatites: evidence of a decreased hydrophilicity. Scientific Reports, 2017, 7, 8901.	3.3	29
53	Cardiovascular nanomedicine: the route ahead. Nanomedicine, 2019, 14, 2391-2394.	3.3	29
54	Platinum-loaded, selenium-doped hydroxyapatite nanoparticles selectively reduce proliferation of prostate and breast cancer cells co-cultured in the presence of stem cells. Journal of Materials Chemistry B, 2020, 8, 2792-2804.	5.8	29

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55	A Step toward Control of the Surface Structure of Biomimetic Hydroxyapatite Nanoparticles: Effect of Carboxylates on the {010} P-Rich/Ca-Rich Facets Ratio. Journal of Physical Chemistry C, 2015, 119, 5928-5937.	3.1	26
56	Tough and adhesive nanostructured calcium phosphate thin films deposited by the pulsed plasma deposition method. RSC Advances, 2015, 5, 78561-78571.	3.6	26
57	Mussel Shell-Derived Macroporous 3D Scaffold: Characterization and Optimization Study of a Bioceramic from the Circular Economy. Marine Drugs, 2020, 18, 309.	4.6	26
58	Selenium-doped hydroxyapatite nanoparticles for potential application in bone tumor therapy. Journal of Inorganic Biochemistry, 2021, 215, 111334.	3.5	26
59	Preparation of injectable auto-forming alginate gel containing simvastatin with amorphous calcium phosphate as a controlled release medium and their therapeutic effect in osteoporosis model rat. Journal of Materials Science: Materials in Medicine, 2012, 23, 1291-1297.	3.6	25
60	The binding of CNA35 contrast agents to collagen fibrils. Chemical Communications, 2011, 47, 1503-1505.	4.1	24
61	Controlled Release of Chemotherapeutic Platinumâ€“Bisphosphonate Complexes from Injectable Calcium Phosphate Cements. Tissue Engineering - Part A, 2016, 22, 788-800.	3.1	24
62	Bio-inspired assembling/mineralization process as a flexible approach to develop new smart scaffolds for the regeneration of complex anatomical regions. Journal of the European Ceramic Society, 2016, 36, 2857-2867.	5.7	24
63	Interaction of Folic Acid with Nanocrystalline Apatites and Extension to Methotrexate (Antifolate) in View of Anticancer Applications. Langmuir, 2018, 34, 12036-12048.	3.5	24
64	The Use of Calcium Phosphates in Cosmetics, State of the Art and Future Perspectives. Materials, 2021, 14, 6398.	2.9	24
65	Coupling Hydroxyapatite Nanocrystals with Lactoferrin as a Promising Strategy to Fine Regulate Bone Homeostasis. PLoS ONE, 2015, 10, e0132633.	2.5	23
66	Nanotechnology support the next agricultural revolution: Perspectives to enhancement of nutrient use efficiency. Advances in Agronomy, 2020, 161, 27-116.	5.2	23
67	The Cooperative Effect of Size and Crystallinity Degree on the Resorption of Biomimetic Hydroxyapatite for Soft Tissue Augmentation. International Journal of Artificial Organs, 2010, 33, 765-774.	1.4	21
68	Characterization of a Toothpaste Containing Bioactive Hydroxyapatites and In Vitro Evaluation of Its Efficacy to Remineralize Enamel and to Occlude Dentinal Tubules. Materials, 2020, 13, 2928.	2.9	21
69	Electrospun Collagen Mimicking the Reconstituted Extracellular Matrix Improves Osteoblastic Differentiation Onto Titanium Surfaces. Journal of Nanoscience and Nanotechnology, 2013, 13, 4720-4726.	0.9	20
70	Luminescent calcium phosphate bioceramics doped with europium derived from fish industry byproducts. Journal of the American Ceramic Society, 2017, 100, 3402-3414.	3.8	19
71	A combined low-frequency electromagnetic and fluidic stimulation for a controlled drug release from superparamagnetic calcium phosphate nanoparticles: potential application for cardiovascular diseases. Journal of the Royal Society Interface, 2018, 15, 20180236.	3.4	19
72	A sustainable multi-function biomorphic material for pollution remediation or UV absorption: Aerosol assisted preparation of highly porous ZnO-based materials from cork templates. Journal of Environmental Chemical Engineering, 2019, 7, 102936.	6.7	19

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73	Calorimetric and Raman investigation of cowâ€™s milk lactoferrin. Journal of Thermal Analysis and Calorimetry, 2011, 103, 41-47.	3.6	18
74	Preparation of coreâ€“shell poly(l-lactic) acid-nanocrystalline apatite hollow microspheres for bone repairing applications. Journal of Materials Science: Materials in Medicine, 2012, 23, 2659-2669.	3.6	18
75	Thermal crystallization of amorphous calcium phosphate combined with citrate and fluoride doping: a novel route to produce hydroxyapatite bioceramics. Journal of Materials Chemistry B, 2021, 9, 4832-4845.	5.8	18
76	Dental tissue remineralization by bioactive calcium phosphate nanoparticles formulations. Scientific Reports, 2022, 12, 5994.	3.3	18
77	Formation of calcium phosphates by vapour diffusion in highly concentrated ionic microâ€droplets. Crystal Research and Technology, 2011, 46, 841-846.	1.3	16
78	Combined Effect of Citrate and Fluoride Ions on Hydroxyapatite Nanoparticles. Crystal Growth and Design, 2020, 20, 3163-3172.	3.0	16
79	Targeting of radioactive platinum-bisphosphonate anticancer drugs to bone of high metabolic activity. Scientific Reports, 2020, 10, 5889.	3.3	15
80	Thermal conversion of fish bones into fertilizers and biostimulants for plant growth â€“ A low tech valorization process for the development of circular economy in least developed countries. Journal of Environmental Chemical Engineering, 2021, 9, 104815.	6.7	15
81	A combined additive layer manufacturing / indirect replication method to prototype 3D vascular-like structures of soft tissue and endocrine organs. Virtual and Physical Prototyping, 2012, 7, 3-11.	10.4	14
82	Extraction and characterization of hydroxyapatiteâ€based materials from grey triggerfish skin and black scabbardfish bones. International Journal of Applied Ceramic Technology, 2021, 18, 235-243.	2.1	14
83	Types of ceramics. , 2017, , 21-82.		13
84	Preclinical evaluation of platinum-loaded hydroxyapatite nanoparticles in an embryonic zebrafish xenograft model. Nanoscale, 2020, 12, 13582-13594.	5.6	13
85	Inhalable Microparticles Embedding Calcium Phosphate Nanoparticles for Heart Targeting: The Formulation Experimental Design. Pharmaceutics, 2021, 13, 1825.	4.5	13
86	Polyester fibers can be rendered calcium phosphateâ€binding by surface functionalization with bisphosphonate groups. Journal of Biomedical Materials Research - Part A, 2017, 105, 2335-2342.	4.0	12
87	The Effect of the Repression of Oxidative Stress on Tenocyte Differentiation: A Preliminary Study of a Rat Cell Model Using a Novel Differential Tensile Strain Bioreactor. International Journal of Molecular Sciences, 2019, 20, 3437.	4.1	12
88	Bone tumorâ€“targeted delivery of theranostic 195mPt-bisphosphonate complexes promotes killing of metastatic tumor cells. Materials Today Bio, 2021, 9, 100088.	5.5	12
89	Calcium Phosphate Particles Coated with Humic Substances: A Potential Plant Biostimulant from Circular Economy. Molecules, 2021, 26, 2810.	3.8	12
90	Bioinspired crystallization, sensitized luminescence and cytocompatibility of citrate-functionalized Ca-substituted europium phosphate monohydrate nanophosphors. Journal of Colloid and Interface Science, 2019, 538, 174-186.	9.4	11

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91	Calcium Phosphate Nanoparticle Precipitation by a Continuous Flow Process: A Design of Experiment Approach. Crystals, 2020, 10, 953.	2.2	11
92	DSC and Raman study on the interaction of DDT [1,1,1-trichloro-2,2-bis(p-chlorophenyl)-ethane] with liposomal phospholipids. Pesticide Biochemistry and Physiology, 2008, 92, 144-149.	3.6	10
93	Role of citrate in the formation of enamel-like calcium phosphate oriented nanorod arrays. CrystEngComm, 2019, 21, 4684-4689.	2.6	10
94	Antimicrobial Activity of Remineralizing Ion-Doped Amorphous Calcium Phosphates for Preventive Dentistry. Frontiers in Materials, 2022, 9, .	2.4	10
95	Controlled release of vancomycin from cross-linked gelatine. Journal of Materials Science: Materials in Medicine, 2008, 19, 1325-1334.	3.6	9
96	pH-responsive collagen fibrillogenesis in confined droplets induced by vapour diffusion. Journal of Materials Science: Materials in Medicine, 2014, 25, 2305-2312.	3.6	9
97	Superparamagnetic hybrid microspheres affecting osteoblasts behaviour. Materials Science and Engineering C, 2019, 96, 234-247.	7.3	9
98	Nano-miR-133a Replacement Therapy Blunts Pressure Overloadâ€“Induced Heart Failure. Circulation, 2021, 144, 1973-1976.	1.6	9
99	Bio-inspired citrate-functionalized apatite thin films crystallized on Tiâ€“6Alâ€“4V implants pre-coated with corrosion resistant layers. Journal of Inorganic Biochemistry, 2013, 127, 261-268.	3.5	8
100	Dual-functionalisation of gelatine nanoparticles with an anticancer platinum(<scp>ii</scp>)â€“bisphosphonate complex and mineral-binding alendronate. RSC Advances, 2016, 6, 113025-113037.	3.6	8
101	Bioinspired Mineralization of Type I Collagen Fibrils with Apatite in Presence of Citrate and Europium Ions. Crystals, 2019, 9, 13.	2.2	8
102	Growth on poly(l-lactic acid) porous scaffold preserves CD73 and CD90 immunophenotype markers of rat bone marrow mesenchymal stromal cells. Journal of Materials Science: Materials in Medicine, 2014, 25, 2421-2436.	3.6	7
103	Targeted and theranostic applications for nanotechnologies in medicine. , 2018, , 399-511.		7
104	Nanotechnological approach and bio-inspired materials to face degenerative diseases in aging. Aging Clinical and Experimental Research, 2021, 33, 805-821.	2.9	7
105	Role of Maturation Temperature on Structural Substitution of Carbonate in Hydroxyapatite Nanoparticles. Jom, 2021, 73, 1044-1052.	1.9	7
106	Calcium Phosphate Surface Tailoring Technologies for Drug Delivering and Tissue Engineering. , 2012, , 43-111.		7
107	Functionalized nanomaterials for diagnosis and therapy of cancer. Journal of Applied Biomaterials and Biomechanics, 2009, 7, 77-89.	0.4	7
108	Luminescent Citrate-Functionalized Terbium-Substituted Carbonated Apatite Nanomaterials: Structural Aspects, Sensitized Luminescence, Cytocompatibility, and Cell Uptake Imaging. Nanomaterials, 2022, 12, 1257.	4.1	7

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109	The effect of chemical structure of carboxylate molecules on hydroxyapatite nanoparticles. A structural and morphological study. Bioactive Materials, 2021, 6, 2360-2371.	15.6	6
110	Amorphous calcium phosphate, the lack of order is an abundance of possibilities. Biomaterials and Biosystems, 2022, 5, 100037.	2.2	6
111	The cooperative effect of size and crystallinity degree on the resorption of biomimetic hydroxyapatite for soft tissue augmentation. International Journal of Artificial Organs, 2010, 33, 765-74.	1.4	6
112	Surface and structural characterization of Cu-exchanged hydroxyapatites and their application in H2O2 electrocatalytic reduction. Applied Surface Science, 2022, 595, 153495.	6.1	6
113	Adsorption of Alendronate onto Biomimetic Apatite Nanocrystals to Develop Drug Carrier Coating for Bone Implants. Key Engineering Materials, 0, 529-530, 475-479.	0.4	5
114	Biocompatible antimicrobial colistin loaded calcium phosphate nanoparticles for the counteraction of biofilm formation in cystic fibrosis related infections. Journal of Inorganic Biochemistry, 2022, 230, 111751.	3.5	5
115	Hydroxyapatite: From Nanocrystals to Hybrid Nanocomposites for Regenerative Medicine. , 2016, , 119-144.		4
116	Magnetic core-shell nanoparticles. , 2018, , 259-296.		4
117	Introducing biomaterials for tissue repair and regeneration. , 2020, , 1-27.		4
118	Nature-Inspired Nanotechnology and Smart Magnetic Activation: Two Groundbreaking Approaches Toward a New Generation of Biomaterials for Hard Tissue Regeneration. , 2016, , .		3
119	Inorganic nanoparticles for theranostic use. , 2018, , 351-376.		3
120	Tissue engineering and biomimetics with bioceramics. , 2017, , 407-432.		2
121	Bioceramics in Regenerative Medicine. , 2021, , 601-613.		2
122	The Biomimetic Approach to Design Apatites for Nanobiotechnological Applications. , 0, , .		1
123	Development of a Targeted Drug Delivery System: Monoclonal Antibodies Adsorption onto Bonelike Hydroxyapatite Nanocrystal Surface. Advanced Materials Research, 0, 409, 175-180.	0.3	1
124	Fully Biodegradable Magnetic Micro-Nanoparticles: A New Platform for Tissue Regeneration and Theranostic. , 2013, , .		1
125	Optimization of In Vivo Studies by Combining Planar Dynamic and Tomographic Imaging: Workflow Evaluation on a Superparamagnetic Nanoparticles System. Molecular Imaging, 2021, 2021, 6677847.	1.4	1
126	Hydroxyapatite: From Nanocrystals to Hybrid Nanocomposites for Regenerative Medicine. , 2015, , 1-26.		1

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127	Microbial Volatile Organic Compound (VOC)-Driven Dissolution and Surface Modification of Phosphorus-Containing Soil Minerals for Plant Nutrition: An Indirect Route for VOC-Based Plantâ€“Microbe Communications. Journal of Agricultural and Food Chemistry, 2021, 69, 14478-14487.	5.2	1
128	Remote Control of Cell Behaviour Through an External Magnetic Field as Tool for Nanomedicine Applications. , 2013, , .		0
129	Vibrational Spectroscopies for Surface Characterization of Biomaterials. , 2012, , 130-152.		0