

Richard Mendelsohn

List of Publications by Year in descending order

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48
papers

2,958
citations

218677

26
h-index

243625

44
g-index

50
all docs

50
docs citations

50
times ranked

3818
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage. <i>Biopolymers</i> , 2001, 62, 1-8. | 2.4 | 376 |
| 2 | P-Doped Porous Carbon as Metal Free Catalysts for Selective Aerobic Oxidation with an Unexpected Mechanism. <i>ACS Nano</i> , 2016, 10, 2305-2315. | 14.6 | 276 |
| 3 | Infrared reflection-absorption spectroscopy: Principles and applications to lipid-protein interaction in Langmuir films. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2010, 1798, 788-800. | 2.6 | 197 |
| 4 | Quantitative Determination of Molecular Chain Tilt Angles in Monolayer Films at the Air/Water Interface: Infrared Reflection/Absorption Spectroscopy of Behenic Acid Methyl Ester. <i>Journal of Physical Chemistry B</i> , 1997, 101, 58-65. | 2.6 | 190 |
| 5 | Determination of molecular conformation and permeation in skin via IR spectroscopy, microscopy, and imaging. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2006, 1758, 923-933. | 2.6 | 185 |
| 6 | Biological control of aragonite formation in stony corals. <i>Science</i> , 2017, 356, 933-938. | 12.6 | 163 |
| 7 | FTIR Spectroscopy Studies of the Conformational Order and Phase Behavior of Ceramides. <i>Journal of Physical Chemistry B</i> , 1997, 101, 8933-8940. | 2.6 | 159 |
| 8 | Graphene-Catalyzed Direct Friedel-Crafts Alkylation Reactions: Mechanism, Selectivity, and Synthetic Utility. <i>Journal of the American Chemical Society</i> , 2015, 137, 14473-14480. | 13.7 | 147 |
| 9 | ¹³ C Isotope Labeling of Hydrophobic Peptides. Origin of the Anomalous Intensity Distribution in the Infrared Amide I Spectral Region of β -Sheet Structures. <i>Journal of the American Chemical Society</i> , 2000, 122, 677-683. | 13.7 | 141 |
| 10 | Microwave Enabled One-Pot, One-Step Fabrication and Nitrogen Doping of Holey Graphene Oxide for Catalytic Applications. <i>Small</i> , 2015, 11, 3358-3368. | 10.0 | 106 |
| 11 | Phytosphingosine and Sphingosine Ceramide Headgroup Hydrogen Bonding: Structural Insights through Thermotropic Hydrogen/Deuterium Exchange. <i>Journal of Physical Chemistry B</i> , 2001, 105, 9355-9362. | 2.6 | 96 |
| 12 | An FT-IR microscopic investigation of the effects of tissue preservation on bone. <i>Calcified Tissue International</i> , 1992, 51, 72-77. | 3.1 | 79 |
| 13 | Lactation-Induced Changes in the Volume of Osteocyte Lacunar-Canalicular Space Alter Mechanical Properties in Cortical Bone Tissue. <i>Journal of Bone and Mineral Research</i> , 2017, 32, 688-697. | 2.8 | 75 |
| 14 | Characterization of biological samples by two-dimensional infrared spectroscopy: Simulation of frequency, bandwidth, and intensity changes. <i>Biospectroscopy</i> , 1996, 2, 341-351. | 0.6 | 63 |
| 15 | Infrared microspectroscopic imaging maps the spatial distribution of exogenous molecules in skin. <i>Journal of Biomedical Optics</i> , 2003, 8, 185. | 2.6 | 59 |
| 16 | Polarized FT-IR Microscopy of Calcified Turkey Leg Tendon. <i>Connective Tissue Research</i> , 1996, 34, 203-211. | 2.3 | 55 |
| 17 | Adipocyte Fatty Acid-Binding Protein: Interaction with Phospholipid Membranes and Thermal Stability Studied by FTIR Spectroscopy. <i>Biochemistry</i> , 1997, 36, 8311-8317. | 2.5 | 48 |
| 18 | Infrared spectroscopy and microscopic imaging of stratum corneum models and skin. <i>Physical Chemistry Chemical Physics</i> , 2000, 2, 4651-4657. | 2.8 | 46 |

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|----|--|-----|-----------|
| 19 | Conformational Order of Phospholipids Incorporated into Human Erythrocytes: An FTIR Spectroscopy Study. <i>Biochemistry</i> , 1996, 35, 229-235. | 2.5 | 45 |
| 20 | Three of Four Cysteines, Including That Responsible for Substrate Activation, Are Ionized at pH 6.0 in Yeast Pyruvate Decarboxylase: Evidence from Fourier Transform Infrared and Isoelectric Focusing Studies. <i>Biochemistry</i> , 1996, 35, 10249-10255. | 2.5 | 42 |
| 21 | Role of Ceramides 2 and 5 in the Structure of the Stratum Corneum Lipid Barrier. <i>International Journal of Cosmetic Science</i> , 1999, 21, 353-368. | 2.6 | 39 |
| 22 | A Polyalanine-Based Peptide Cannot Form a Stable Transmembrane α -Helix in Fully Hydrated Phospholipid Bilayers. <i>Biochemistry</i> , 2001, 40, 12103-12111. | 2.5 | 37 |
| 23 | Characterization of biological samples by two-dimensional infrared spectroscopy: Simulation of frequency, bandwidth, and intensity changes. <i>Biospectroscopy</i> , 1998, 2, 341-351. | 0.6 | 36 |
| 24 | Peroxidation of erythrocytes: FTIR spectroscopy studies of extracted lipids, isolated membranes, and intact cells. <i>Biospectroscopy</i> , 1995, 1, 133-140. | 0.6 | 34 |
| 25 | Effects of permeation enhancers on flufenamic acid delivery in Ex vivo human skin by confocal Raman microscopy. <i>International Journal of Pharmaceutics</i> , 2016, 505, 319-328. | 5.2 | 29 |
| 26 | Partial Chain Deuteration as an IRRAS Probe of Conformational Order of Different Regions in Hexadecanoic Acid Monolayers at the Air/Water Interface. <i>Langmuir</i> , 1996, 12, 758-762. | 3.5 | 28 |
| 27 | Dynamic structure and composition of bone investigated by nanoscale infrared spectroscopy. <i>PLoS ONE</i> , 2018, 13, e0202833. | 2.5 | 28 |
| 28 | Synergy of oxygen and a piranha solution for eco-friendly production of highly conductive graphene dispersions. <i>Green Chemistry</i> , 2015, 17, 869-881. | 9.0 | 27 |
| 29 | Conformational Order of Specific Phospholipids in Human Erythrocytes: Correlations with Changes in Cell Shape. <i>Biochemistry</i> , 1997, 36, 660-664. | 2.5 | 25 |
| 30 | In vitro modeling of unsaturated free fatty acid-mediated tissue impairments seen in acne lesions. <i>Archives of Dermatological Research</i> , 2017, 309, 529-540. | 1.9 | 19 |
| 31 | Graphene oxide catalyzed ketone α -alkylation with alkenes: enhancement of graphene oxide activity by hydrogen bonding. <i>Chemical Communications</i> , 2019, 55, 5379-5382. | 4.1 | 17 |
| 32 | Kinetic Evidence Suggests Spinodal Phase Separation in Stratum Corneum Models by IR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2014, 118, 4378-4387. | 2.6 | 16 |
| 33 | Topically applied ceramide accumulates in skin glyphs. <i>Clinical, Cosmetic and Investigational Dermatology</i> , 2015, 8, 329. | 1.8 | 12 |
| 34 | Fatty Acid Chain Length Dependence of Phase Separation Kinetics in Stratum Corneum Models by IR Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2015, 119, 9740-9750. | 2.6 | 9 |
| 35 | Novel confocal Raman microscopy method to investigate hydration mechanisms in human skin. <i>Skin Research and Technology</i> , 2019, 25, 653-661. | 1.6 | 9 |
| 36 | Microwave-Enabled Incorporation of Single Atomic Cu Catalytic Sites in Holey Graphene: Unifying Structural Requirements of a Carbon Matrix for Simultaneous Achievement of High Activity and Long-Term Durability. <i>ACS Applied Energy Materials</i> , 2020, 3, 8266-8275. | 5.1 | 9 |

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|----|---|------|-----------|
| 37 | FT-IR investigation of Terbinafine interaction with stratum corneum constituents. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2020, 1862, 183335. | 2.6 | 8 |
| 38 | <p>Visualization of Epidermal Reservoir Formation from Topical Diclofenac Gels by Raman Spectroscopy</p>. <i>Journal of Pain Research</i> , 2020, Volume 13, 1621-1627. | 2.0 | 6 |
| 39 | Spectroscopic studies of a hydrophobic peptide in membranelike environments. <i>Biopolymers</i> , 1983, 22, 381-385. | 2.4 | 4 |
| 40 | Functionalization of MgZnO nanorod films and characterization by FTIR microscopic imaging. <i>Analytical and Bioanalytical Chemistry</i> , 2017, 409, 6379-6386. | 3.7 | 4 |
| 41 | Raman spectroscopic studies of the dipalmitoylphosphatidylcholine/glucagon and the dipalmitoylphosphatidylcholine/cardioplipin/insulin systems. <i>Journal of Raman Spectroscopy</i> , 1979, 8, 279-283. | 2.5 | 3 |
| 42 | Interplay of Univariate and Multivariate Analysis in Vibrational Microscopic Imaging of Mineralized Tissue and Skin. , 0, , 357-378. | | 3 |
| 43 | CD ₂ Rocking Modes as Quantitative Fourier Transform Infrared Spectroscopic Probes of Conformational Disorder in Phospholipid Bilayers. <i>ACS Symposium Series</i> , 1990, , 24-43. | 0.5 | 3 |
| 44 | <p>A unique gel matrix moisturizer delivers deep hydration resulting in significant clinical improvement in radiance and texture</p>. <i>Clinical, Cosmetic and Investigational Dermatology</i> , 2019, Volume 12, 229-239. | 1.8 | 2 |
| 45 | FTIR microscopic imaging of collagen and proteoglycan in bovine cartilage. , 2001, 62, 1. | | 2 |
| 46 | Graphene: Microwave Enabled One-Pot, One-Step Fabrication and Nitrogen Doping of Holey Graphene Oxide for Catalytic Applications (Small 27/2015). <i>Small</i> , 2015, 11, 3357-3357. | 10.0 | 1 |
| 47 | FT-IR studies of sickle hemoglobin interaction with phosphatidylserine. <i>Spectroscopy</i> , 2004, 18, 407-413. | 0.8 | 0 |
| 48 | Vibrational Microspectroscopic Imaging: Applications To Skin Science And Wound Healing. , 2010, , . | | 0 |