Pulak Dutta

List of Publications by Year
in descending order

81 papers	4,544 citations	117625 34 h-index	98798 67 g-index
81 all docs	81 docs citations	81 times ranked	4480 citing authors

#	Article	IF	Citations
1	Structure and phase transitions in Langmuir monolayers. Reviews of Modern Physics, 1999, 71, 779-819.	45.6	1,361
2	High-Performance Hole-Transport Layers for Polymer Light-Emitting Diodes. Implementation of Organosiloxane Cross-Linking Chemistry in Polymeric Electroluminescent Devices. Journal of the American Chemical Society, 2005, 127, 3172-3183.	13.7	286
3	Covalently Bound Hole-Injecting Nanostructures. Systematics of Molecular Architecture, Thickness, Saturation, and Electron-Blocking Characteristics on Organic Light-Emitting Diode Luminance, Turn-on Voltage, and Quantum Efficiency. Journal of the American Chemical Society, 2005, 127, 10227-10242.	13.7	154
4	Layer-by-Layer Self-Assembled Pyrrole-Based Donorâ^'Acceptor Chromophores as Electro-Optic Materials. Chemistry of Materials, 2003, 15, 1064-1072.	6.7	150
5	Controlling Structure from the Bottom-Up:Â Structural and Optical Properties of Layer-by-Layer Assembled Palladium Coordination-Based Multilayers. Journal of the American Chemical Society, 2006, 128, 7374-7382.	13.7	146
6	X-Shaped Electro-optic Chromophore with Remarkably Blue-Shifted Optical Absorption. Synthesis, Characterization, Linear/Nonlinear Optical Properties, Self-Assembly, and Thin Film Microstructural Characteristics. Journal of the American Chemical Society, 2006, 128, 6194-6205.	13.7	131
7	Aziniumâ^'(Ï€-Bridge)â^'Pyrrole NLO-Phores:Â Influence of Heterocycle Acceptors on Chromophoric and Self-Assembled Thin-Film Properties#. Chemistry of Materials, 2002, 14, 4996-5005.	6.7	102
8	Self-Assembly Processes for Organic LED Electrode Passivation and Charge Injection Balance. Advanced Materials, 1999, 11, 227-231.	21.0	98
9	Anode Interfacial Engineering Approaches to Enhancing Anode/Hole Transport Layer Interfacial Stability and Charge Injection Efficiency in Organic Light-Emitting Diodes. Langmuir, 2002, 18, 9958-9970.	3.5	94
10	Self-Propagating Assembly of a Molecular-Based Multilayer. Journal of the American Chemical Society, 2008, 130, 8913-8915.	13.7	78
11	The Effects of Divalent Ions on Langmuir Monolayer and Subphase Structure:Â A Grazing-Incidence Diffraction and Bragg Rod Study. Journal of Physical Chemistry B, 2001, 105, 10818-10825.	2.6	77
12	Strategies for Electrooptic Film Fabrication. Influence of Pyrroleâ^'Pyridine-Based Dibranched Chromophore Architecture on Covalent Self-Assembly, Thin-Film Microstructure, and Nonlinear Optical Response. Journal of the American Chemical Society, 2006, 128, 2142-2153.	13.7	73
13	How Water Meets a Very Hydrophobic Surface. Physical Review Letters, 2010, 105, 037803.	7.8	72
14	Realization of Expeditious Layer-by-Layer Siloxane-Based Self-assembly as an Efficient Route to Structurally Regular Acentric Superlattices with Large Electro-optic Responses. Chemistry of Materials, 2002, 14, 4982-4989.	6.7	70
15	Hot Microcontact Printing for Patterning ITO Surfaces. Methodology, Morphology, Microstructure, and OLED Charge Injection Barrier Imaging. Langmuir, 2003, 19, 86-93.	3.5	64
16	Molecularly â€œEngineeredâ€•Anode Adsorbates for Probing OLED Interfacial Structureâ^'Charge Injection/Luminance Relationships:Â Large, Structure-Dependent Effects. Journal of the American Chemical Society, 2003, 125, 14704-14705.	13.7	59
17	Vapor Phase Self-Assembly of Electrooptic Thin Films via Triple Hydrogen Bonds. Journal of the American Chemical Society, 2003, 125, 11496-11497.	13.7	57
18	Stepwise Assembly of Coordination-Based Metalâ^'Organic Networks. Journal of the American Chemical Society, 2010, 132, 14554-14561.	13.7	57

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19	What x rays can tell us about the interfacial profile of water near hydrophobic surfaces. Physical Review B, 2013, 88, .	3.2	57
20	Systematic Investigation of Nanoscale Adsorbate Effects at Organic Light-Emitting Diode Interfaces. Interfacial Structureâ˜Charge Injectionâ˜Luminance Relationships. Chemistry of Materials, 2006, 18, 2431-2442.	6.7	55
21	Molecular Assembly of a 3D-Ordered Multilayer. Journal of the American Chemical Society, 2008, 130, 5040-5041.	13.7	54
22	Single Reactor Route to Polar Superlattices. Layer-by-Layer Self-Assembly of Large-Response Molecular Electrooptic Materials by Protectionâ˜Deprotection. Chemistry of Materials, 2001, 13, 15-17.	6.7	52
23	Assembly of Surface-Confined Homochiral Helicates: Chiral Discrimination of DOPA and Unidirectional Charge Transfer. Journal of the American Chemical Society, 2013, 135, 17052-17059.	13.7	52
24	Observation of Surface Layering in a Nonmetallic Liquid. Physical Review Letters, 2006, 96, 096107.	7.8	50
25	Self-Assembled Chromophoric NLO-Active Monolayers. X-ray Reflectivity and Second-Harmonic Generation as Complementary Probes of Building Blockâ˜Film Microstructure Relationships. Langmuir, 1996, 12, 4218-4223.	3.5	49
26	Crowding and Anomalous Capacitance at an Electrodeâ€“Ionic Liquid Interface Observed Using Operando X-ray Scattering. ACS Central Science, 2016, 2, 175-180.	11.3	47
27	New Nonlinear Optical Materials: Expedient Topotactic Self-Assembly of Acentric Chromophoric Superlattices. Angewandte Chemie International Edition in English, 1995, 34, 1497-1499.	4.4	46
28	X-ray diffraction studies of the effects of calcium(2+) and copper(2+) on Langmuir monolayers of heneicosanoic acid. Langmuir, 1990, 6, 1665-1667.	3.5	41
29	Nanoscale Consecutive Self-Assembly of Thin-Film Molecular Materials for Electrooptic Switching. Chemical Streamlining and Ultrahigh Response Chromophores. Langmuir, 2002, 18, 3704-3707.	3.5	41
30	Nanometer-Scale Dielectric Self-assembly Process for Anode Modification in Organic Light-Emitting Diodes. Consequences for Charge Injection and Enhanced Luminous Efficiency. Chemistry of Materials, 2002, 14, 3054-3065.	6.7	40
31	Self-assembly of Photofunctional Siloxane-Based Calix[4]arenes on Oxide Surfaces. Chemistry of Materials, 2003, 15, 4068-4074.	6.7	40
32	Ultraslow Dynamics at a Charged Siliconâ€“Ionic Liquid Interface Revealed by X-ray Reflectivity. Journal of Physical Chemistry C, 2017, 121, 3841-3845.	3.1	39
33	Formation of multilayers of dipalmitoylphosphatidylcholine using the Langmuir-Blodgett technique. Langmuir, 1987, 3, 1096-1097.	3.5	36
34	Evidence of Registry at the Interface during Inorganic Nucleation at an Organic Template. Physical Review Letters, 2002, 89, 186102.	7.8	36
35	Ordering in the Subphase of a Langmuir Monolayer:Â X-ray Diffraction and Anomalous Scattering Studies. Langmuir, 2001, 17, 4697-4700.	3.5	33
36	Characterization of Transparent Conducting Oxide Surfaces Using Self-Assembled Electroactive Monolayers. Langmuir, 2008, 24, 5755-5765.	3.5	32

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37	Covalent Assembly of Stilbene-Based Monolayers:â€‰ Factors Controlling Molecular Interactions. Journal of Physical Chemistry B, 2004, 108, 17505-17511.	2.6	31
38	Mechanism of Pb Adsorption to Fatty Acid Langmuir Monolayers Studied by X-ray Absorption Fine Structure Spectroscopy. Journal of Physical Chemistry B, 2003, 107, 9780-9788.	2.6	30
39	Triarylamine siloxane anode functionalization/hole injection layers in high efficiency/high luminance small-molecule green- and blue-emitting organic light-emitting diodes. Journal of Applied Physics, 2007, 101, 093101.	2.5	30
40	Ordering of liquid squalane near a solid surface. Chemical Physics Letters, 2005, 415, 106-109.	2.6	28
41	Interrupted-Growth Studies of the Self-Assembly of Intrinsically Acentric Siloxane-Derived Monolayers. Langmuir, 2003, 19, 10531-10537.	3.5	26
42	Positive Constructs: Charges Localized on Surface-Confined Organometallic Oligomers. Chemistry of Materials, 2009, 21, 4676-4684.	6.7	25
43	Observation of an Organicâ”Inorganic Lattice Match during Biomimetic Growth of (001)-Oriented Calcite Crystals under Floating Sulfate Monolayers. Langmuir, 2008, 24, 10579-10582.	3.5	22
44	Composite Molecular Assemblies: Nanoscale Structural Control and Spectroelectrochemical Diversity. Journal of the American Chemical Society, 2013, 135, 16533-16544.	13.7	22
45	Effects of Shear Flow on Interfacial Ordering in Liquids:â€‰ X-ray Scattering Studies. Langmuir, 2003, 19, 9558-9561.	3.5	21
46	Organic-template-directed nucleation of strontium fluoride and barium fluoride: Epitaxy and strain. Physical Review B, 2003, 68, .	3.2	21
47	Conformational rearrangements in interfacial region of polydimethylsiloxane melt films. Polymer, 2006, 47, 878-882.	3.8	21
48	Reversible Redox-Based Optical Sensing of Parts per Million Levels of Nitrosyl Cation in Organic Solvents by Osmium Chromophore-Based Monolayers. Journal of Physical Chemistry C, 2007, 111, 4655-4660.	3.1	21
49	Coordinationâ€Based Molecular Assemblies of Oligofurans and Oligothiophenes. Chemistry - A European Journal, 2013, 19, 8821-8831.	3.3	20
50	Controlling growth of self-propagating molecular assemblies. Chemical Science, 2012, 3, 66-71.	7.4	18
51	Electrostatic Origin of Element Selectivity during Rare Earth Adsorption. Physical Review Letters, 2019, 122, 058001.	7.8	18
52	Photoinduced Deprotection and ZnO Patterning of Hydroxyl-Terminated Siloxane-Based Monolayers. Journal of Physical Chemistry B, 2005, 109, 14144-14153.	2.6	15
53	Structural Signal of a Dynamic Glass Transition. Physical Review Letters, 2009, 103, 175701.	7.8	15
54	Studies of monolayers using synchrotron X-ray diffraction. Current Opinion in Solid State and Materials Science, 1997, 2, 557-562.	11.5	14

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55	Synergism in Multicomponent Self-Propagating Molecular Assemblies. Langmuir, 2011, 27, 1319-1325.	3.5	14
56	Observation of Ordered Structures in Counterion Layers near Wet Charged Surfaces: A Potential Mechanism for Charge Inversion. Langmuir, 2016, 32, 73-77.	3.5	14
57	Specific Ion Effects in Lanthanideâ€“Amphiphile Structures at the Airâ€“Water Interface and Their Implications for Selective Separation. ACS Applied Materials & Interfaces, 2022, 14, 7504-7512.	8.0	14
58	Designing Surfaceâ€Confined Coordination Oligomers. Chemistry - A European Journal, 2010, 16, 6744-6747.	3.3	13
59	Atomic Number Dependent â€œStructural Transitionsâ€•in Ordered Lanthanide Monolayers: Role of the Hydration Shell. Langmuir, 2017, 33, 1412-1418.	3.5	13
60	Reverse Self-Assembly: (111)-Oriented Gold Crystallization at Alkylthiol Monolayer Templates. Physical Review Letters, 2011, 107, 115503.	7.8	12
61	Charge, Stereochemistry, or Epitaxy? Toward Controlled Biomimetic Nucleation at Mixed Monolayer Templates. Langmuir, 2012, 28, 572-578.	3.5	12
62	Surface order in cold liquids: X-ray reflectivity studies of dielectric liquids and comparison to liquid metals. Physical Review B, 2010, 81, .	3.2	11
63	Epitaxy driven interactions at the organicâ€“inorganic interface during biomimetic growth of calcium oxalate. CrystEngComm, 2010, 12, 2025.	2.6	11
64	X-ray Reflectivity Study of Ultrathin Liquid Films of Diphenylsiloxaneâ^'Dimethylsiloxane Copolymers. Langmuir, 2006, 22, 6245-6248.	3.5	10
65	Assembly of Amorphous Clusters under Floating Monolayers: A Comparison of in Situ and ex Situ Techniques. Langmuir, 2013, 29, 14361-14368.	3.5	10
66	Temperature dependence of surface layering in a dielectric liquid. Physical Review B, 2007, 76, .	3.2	9
67	Effects of chitosan on the alignment, morphology and shape of calcite crystals nucleating under Langmuir monolayers. CrystEngComm, 2009, 11, 130-134.	2.6	9
68	Morphological behavior of thin polyhedral oligomeric silsesquioxane films at the molecular scale. Journal of Colloid and Interface Science, 2011, 360, 793-799.	9.4	9
69	ChattopadhyayetÂal.Reply:. Physical Review Letters, 2011, 107, .	7.8	9
70	Aggregation-governed oriented growth of inorganic crystals at an organic template. Journal of Chemical Physics, 2006, 125, 224713.	3.0	7
71	Orientation and morphology of calcite nucleated under floating monolayers: A magnesium-ion-enhanced nucleation study. Journal of Crystal Growth, 2011, 319, 64-69.	1.5	7
72	Interfacial Density Profiles of Polar and Nonpolar Liquids at Hydrophobic Surfaces. Langmuir, 2020, 36, 906-910.	3.5	7

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73	Observation of a liquid-to-layered transition in thin liquid films when surface and interface regions overlap. Physical Review E, 2008, 77, 030601.	2.1	5
74	Pathways for oriented assembly of inorganic crystals at organic surfaces. Thin Solid Films, 2007, 515, 5627-5630.	1.8	4
75	Influence of molecular rigidity on interfacial ordering in diphenyl-based polysiloxane films. Polymer, 2007, 48, 7163-7168.	3.8	4
76	Effect of Solvent Polarizability on the Assembly and Ordering of Nanoscale Polyhedral Oligomeric Silsesquioxane Films. Langmuir, 2014, 30, 196-202.	3.5	4
77	Ionic Liquid Solutions Show Anomalous Crowding Behavior at an Electrode Surface. Langmuir, 2022, 38, 6322-6329.	3.5	4
78	Layer-by-Layer Molecular Assembly Approaches to the Construction of Thin Films Having High Second-Order Optical Nonlinearities. Materials Research Society Symposia Proceedings, 1992, 247, 779.	0.1	3
79	Control of Thin Liquid Film Morphology During Solvent-Assisted Film Deposition. Langmuir, 2010, 26, 7126-7132.	3.5	2
80	"BIOINSPIRED" INORGANIC FILM GROWTH AT ORGANIC TEMPLATES. International Journal of Nanoscience, 2005, 04, 849-854.	0.7	0
81	Mechanisms for species-selective oriented crystal growth at organic templates. Journal of Materials Research, 2007, 22, 2785-2790.	2.6	0