

# István Szilágyi

## List of Publications by Year in descending order

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113  
papers

3,286  
citations

126858

33  
h-index

182361

51  
g-index

113  
all docs

113  
docs citations

113  
times ranked

3270  
citing authors

#	ARTICLE	IF	CITATIONS
1	Polyelectrolyte adsorption, interparticle forces, and colloidal aggregation. <i>Soft Matter</i> , 2014, 10, 2479.	1.2	284
2	Specific Ion Effects on Particle Aggregation Induced by Monovalent Salts within the Hofmeister Series. <i>Langmuir</i> , 2015, 31, 3799-3807.	1.6	167
3	Electrostatic Stabilization of Charged Colloidal Particles with Adsorbed Polyelectrolytes of Opposite Charge. <i>Langmuir</i> , 2010, 26, 15109-15111.	1.6	109
4	Attractive Forces between Charged Colloidal Particles Induced by Multivalent Ions Revealed by Confronting Aggregation and Direct Force Measurements. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 648-652.	2.1	89
5	Aggregation of Negatively Charged Colloidal Particles in the Presence of Multivalent Cations. <i>Langmuir</i> , 2014, 30, 733-741.	1.6	88
6	Poisson-Boltzmann description of interaction forces and aggregation rates involving charged colloidal particles in asymmetric electrolytes. <i>Journal of Colloid and Interface Science</i> , 2013, 406, 111-120.	5.0	87
7	Size-dependent aggregation of graphene oxide. <i>Carbon</i> , 2020, 160, 145-155.	5.4	86
8	Ion specific effects on the stability of layered double hydroxide colloids. <i>Soft Matter</i> , 2016, 12, 4024-4033.	1.2	85
9	Investigating forces between charged particles in the presence of oppositely charged polyelectrolytes with the multi-particle colloidal probe technique. <i>Advances in Colloid and Interface Science</i> , 2012, 179-182, 85-98.	7.0	79
10	Biomimetic Synthesis of Sub-20 nm Covalent Organic Frameworks in Water. <i>Journal of the American Chemical Society</i> , 2020, 142, 3540-3547.	6.6	68
11	Colloidal Stability in Asymmetric Electrolytes: Modifications of the Schulze-Hardy Rule. <i>Langmuir</i> , 2017, 33, 1695-1704.	1.6	63
12	Charged Solvatochromic Dyes as Signal Transducers in pH Independent Fluorescent and Colorimetric Ion Selective Nanosensors. <i>Analytical Chemistry</i> , 2015, 87, 9954-9959.	3.2	62
13	Molecular mass dependence of adsorbed amount and hydrodynamic thickness of polyelectrolyte layers. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 12716.	1.3	59
14	Tuning Colloidal Stability of Layered Double Hydroxides: From Monovalent Ions to Polyelectrolytes. <i>ChemPlusChem</i> , 2017, 82, 121-131.	1.3	57
15	Particle aggregation mechanisms in ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 9515-9524.	1.3	55
16	Predicting Aggregation Rates of Colloidal Particles from Direct Force Measurements. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11853-11862.	1.2	54
17	Destabilization of Titania Nanosheet Suspensions by Inorganic Salts: Hofmeister Series and Schulze-Hardy Rule. <i>Journal of Physical Chemistry B</i> , 2017, 121, 6749-6758.	1.2	54
18	Destabilization of Colloidal Suspensions by Multivalent Ions and Polyelectrolytes: From Screening to Overcharging. <i>Langmuir</i> , 2012, 28, 6211-6215.	1.6	52

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19	Aggregation of Colloidal Particles in the Presence of Multivalent Co-Ions: The Inverse Schulze-Hardy Rule. <i>Langmuir</i> , 2015, 31, 6610-6614.	1.6	50
20	Characterization of Chemical Speciation of Titanyl Sulfate Solutions for Production of Titanium Dioxide Precipitates. <i>Inorganic Chemistry</i> , 2009, 48, 2200-2204.	1.9	46
21	Ion-Selective Optical Nanosensors Based on Solvatochromic Dyes of Different Lipophilicity: From Bulk Partitioning to Interfacial Accumulation. <i>ACS Sensors</i> , 2016, 1, 516-520.	4.0	46
22	Synthesis and formulation of functional bionanomaterials with superoxide dismutase activity. <i>Nanoscale</i> , 2017, 9, 369-379.	2.8	42
23	Speciation study of an imidazolate-bridged copper(II)-zinc(II) complex in aqueous solution. <i>Journal of Inorganic Biochemistry</i> , 2005, 99, 1619-1629.	1.5	37
24	Probing Nanometer-Thick Polyelectrolyte Layers Adsorbed on Oppositely Charged Particles by Dynamic Light Scattering. <i>Macromolecules</i> , 2010, 43, 9108-9116.	2.2	37
25	Charge Reversal of Sulfate Latex Particles by Adsorbed Linear Poly(ethylene imine) Probed by Multiparticle Colloidal Probe Technique. <i>Journal of Physical Chemistry B</i> , 2011, 115, 9098-9105.	1.2	37
26	Forces between Negatively Charged Interfaces in the Presence of Cationic Multivalent Oligoamines Measured with the Atomic Force Microscope. <i>Journal of Physical Chemistry C</i> , 2015, 119, 15482-15490.	1.5	37
27	Heteroaggregation of oppositely charged particles in the presence of multivalent ions. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 15160-15171.	1.3	36
28	Charging and aggregation of negatively charged colloidal latex particles in the presence of multivalent oligoamine cations. <i>Journal of Colloid and Interface Science</i> , 2013, 392, 34-41.	5.0	35
29	Effect of MacroRAFT Copolymer Adsorption on the Colloidal Stability of Layered Double Hydroxide Nanoparticles. <i>Langmuir</i> , 2015, 31, 12609-12617.	1.6	35
30	Charging and stability of anionic latex particles in the presence of linear poly(ethylene imine). <i>Journal of Colloid and Interface Science</i> , 2011, 360, 580-585.	5.0	34
31	Interaction Forces and Aggregation Rates of Colloidal Latex Particles in the Presence of Monovalent Counterions. <i>Journal of Physical Chemistry B</i> , 2015, 119, 8184-8193.	1.2	34
32	Charging and aggregation of latex particles in aqueous solutions of ionic liquids: towards an extended Hofmeister series. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 7511-7520.	1.3	34
33	Aggregation of layered double hydroxide nanoparticles in the presence of heparin: towards highly stable delivery systems. <i>RSC Advances</i> , 2016, 6, 16159-16167.	1.7	34
34	Potassium-selective optical microsensors based on surface modified polystyrene microspheres. <i>Chemical Communications</i> , 2014, 50, 4592-4595.	2.2	32
35	Effect of Ionic Compounds of Different Valences on the Stability of Titanium Oxide Colloids. <i>Colloids and Interfaces</i> , 2018, 2, 32.	0.9	32
36	Superoxide dismutase activity of a Cu-Zn complex-bare and immobilised. <i>New Journal of Chemistry</i> , 2005, 29, 740.	1.4	31

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37	Influence of the Degree of Ionization and Molecular Mass of Weak Polyelectrolytes on Charging and Stability Behavior of Oppositely Charged Colloidal Particles. <i>Langmuir</i> , 2011, 27, 9270-9276.	1.6	31
38	Schulze-Hardy rule revisited. <i>Colloid and Polymer Science</i> , 2020, 298, 961-967.	1.0	29
39	Probing titanate nanowire surface acidity through methylene blue adsorption in colloidal suspension and on thin films. <i>Journal of Colloid and Interface Science</i> , 2014, 416, 190-197.	5.0	27
40	Probing Colloidal Particle Aggregation by Light Scattering. <i>Chimia</i> , 2013, 67, 772.	0.3	26
41	Regulation of the Stability of Titania Nanosheet Dispersions with Oppositely and Like-Charged Polyelectrolytes. <i>Langmuir</i> , 2019, 35, 4986-4994.	1.6	26
42	A colloid chemistry route for the preparation of hierarchically ordered mesoporous layered double hydroxides using surfactants as sacrificial templates. <i>Journal of Colloid and Interface Science</i> , 2021, 581, 928-938.	5.0	26
43	Tuning the Aggregation of Titanate Nanowires in Aqueous Dispersions. <i>Langmuir</i> , 2015, 31, 42-49.	1.6	25
44	Design of latex-layered double hydroxide composites by tuning the aggregation in suspensions. <i>Soft Matter</i> , 2017, 13, 842-851.	1.2	25
45	Self-Assembly of Protamine Biomacromolecule on Halloysite Nanotubes for Immobilization of Superoxide Dismutase Enzyme. <i>ACS Applied Bio Materials</i> , 2020, 3, 522-530.	2.3	24
46	Ion Specific Effects on the Stability of Halloysite Nanotube Colloids – Inorganic Salts versus Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2020, 124, 9757-9765.	1.2	24
47	Antioxidant Materials Based on 2D Nanostructures: A Review on Recent Progresses. <i>Crystals</i> , 2020, 10, 148.	1.0	24
48	Horseradish peroxidase-nanoclay hybrid particles of high functional and colloidal stability. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 114-121.	5.0	23
49	Controlling the Morphology of Film-Forming, Nanocomposite Latexes Containing Layered Double Hydroxide by RAFT-Mediated Emulsion Polymerization. <i>Macromolecules</i> , 2018, 51, 3953-3966.	2.2	23
50	A Simple Method to Determine Critical Coagulation Concentration from Electrophoretic Mobility. <i>Colloids and Interfaces</i> , 2020, 4, 20.	0.9	23
51	Highly stable enzyme-mimicking nanocomposite of antioxidant activity. <i>Journal of Colloid and Interface Science</i> , 2019, 543, 174-182.	5.0	22
52	Lanthanide complexes of ethylenediaminetetramethylene-phosphonic acid. <i>Magyar Árvad Kémlemezés</i> , 2002, 69, 427-439.	1.4	21
53	Improving the stability of titania nanosheets by functionalization with polyelectrolytes. <i>RSC Advances</i> , 2016, 6, 97322-97330.	1.7	21
54	Layered Double Hydroxide Nanoparticles to Overcome the Hydrophobicity of Ellagic Acid: An Antioxidant Hybrid Material. <i>Antioxidants</i> , 2020, 9, 153.	2.2	21

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55	Zn <sup>2+</sup> Complexes of Di- and Tri-nucleating Azacrown Ligands as Base-Selective Cleaving Agents of RNA 3',5'-Phosphodiester Bonds: Binding to Guanine Base. <i>ChemBioChem</i> , 2008, 9, 1739-1748.	1.3	20
56	Radical scavenging activity of plant extracts from improved processing. <i>Heliyon</i> , 2019, 5, e02763.	1.4	19
57	A colloid approach to decorate latex particles with Prussian blue nanozymes. <i>Journal of Molecular Liquids</i> , 2020, 309, 113066.	2.3	19
58	Co-immobilization of antioxidant enzymes on titania nanosheets for reduction of oxidative stress in colloid systems. <i>Journal of Colloid and Interface Science</i> , 2021, 590, 28-37.	5.0	19
59	Yellow-emitting Au/Ag bimetallic nanoclusters with high photostability for detection of folic acid. <i>Journal of Molecular Liquids</i> , 2021, 338, 116695.	2.3	19
60	Spectroscopic characterisation of weak interactions in acidic titanyl sulfate-iron(ii) sulfate solutions. <i>Dalton Transactions</i> , 2009, , 7717.	1.6	18
61	Composite materials based on heteroaggregated particles: Fundamentals and applications. <i>Advances in Colloid and Interface Science</i> , 2021, 294, 102456.	7.0	18
62	Dendrimer-Stabilized Titanate Nanowire Dispersions as Potential Nanocarriers. <i>Journal of Physical Chemistry C</i> , 2015, 119, 24919-24926.	1.5	17
63	Aggregation and charging of sulfate and amidine latex particles in the presence of oxyanions. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 456-464.	5.0	17
64	Effect of Polyelectrolyte Mono- and Bilayer Formation on the Colloidal Stability of Layered Double Hydroxide Nanoparticles. <i>Nanomaterials</i> , 2018, 8, 986.	1.9	17
65	Papain Adsorption on Latex Particles: Charging, Aggregation, and Enzymatic Activity. <i>Journal of Physical Chemistry B</i> , 2019, 123, 9984-9991.	1.2	17
66	Specific Ion Effects on Aggregation and Charging Properties of Boron Nitride Nanospheres. <i>Langmuir</i> , 2021, 37, 2466-2475.	1.6	17
67	Functionalized Titania Nanosheet Dispersions of Peroxidase Activity. <i>Journal of Physical Chemistry C</i> , 2018, 122, 11455-11463.	1.5	16
68	Preparation, Characterization and Catalytic Activities of Immobilized Enzyme Mimics. <i>Catalysis Letters</i> , 2009, 127, 239-247.	1.4	15
69	Charging and Aggregation of Positively Charged Colloidal Latex Particles in Presence of Multivalent Polycarboxylate Anions. <i>Zeitschrift Fur Physikalische Chemie</i> , 2012, 226, 597-612.	1.4	15
70	Dispersion Characteristics and Aggregation in Titanate Nanowire Colloids. <i>ChemPlusChem</i> , 2014, 79, 592-600.	1.3	15
71	Nanometer-ranged attraction induced by multivalent ions between similar and dissimilar surfaces probed using an atomic force microscope (AFM). <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 8739-8751.	1.3	15
72	Nanocomposite-based dual enzyme system for broad-spectrum scavenging of reactive oxygen species. <i>Scientific Reports</i> , 2021, 11, 4321.	1.6	14

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73	Metal loading of lanthanidopolymers driven by positive cooperativity. Dalton Transactions, 2015, 44, 13250-13260.	1.6	13
74	Stability of Titania Nanomaterials Dispersed in Aqueous Solutions of Ionic Liquids of Different Alkyl Chain Lengths. Journal of Physical Chemistry C, 2019, 123, 12966-12974.	1.5	13
75	Layered double hydroxide-based antioxidant dispersions with high colloidal and functional stability. Soft Matter, 2020, 16, 10518-10527.	1.2	13
76	Influence of Protamine Functionalization on the Colloidal Stability of 1D and 2D Titanium Oxide Nanostructures. Langmuir, 2017, 33, 9750-9758.	1.6	12
77	Interactions between similar and dissimilar charged interfaces in the presence of multivalent anions. Physical Chemistry Chemical Physics, 2018, 20, 9436-9448.	1.3	12
78	Contaminant removal by efficient separation of <i>in situ</i> formed layered double hydroxide compounds from mine wastewaters. Environmental Science: Water Research and Technology, 2019, 5, 2251-2259.	1.2	11
79	Mimicking a Superoxide Dismutase (SOD) Enzyme by copper(II) and zinc(II)-complexes. Reaction Kinetics and Catalysis Letters, 2009, 96, 327-333.	0.6	10
80	Immobilization of Superoxide Dismutase on Polyelectrolyte-Functionalized Titania Nanosheets. ChemBioChem, 2018, 19, 404-410.	1.3	10
81	Masking specific effects of ionic liquid constituents at the solid-liquid interface by surface functionalization. Physical Chemistry Chemical Physics, 2020, 22, 24764-24770.	1.3	10
82	Aggregation of Halloysite Nanotubes in the Presence of Multivalent Ions and Ionic Liquids. Langmuir, 2021, 37, 11869-11879.	1.6	10
83	Measurement and Prediction of Physicochemical Properties of Liquors Relevant to the Sulfate Process for Titania Production. 1. Densities in the TiOSO <sub>4</sub> + FeSO <sub>4</sub> + H <sub>2</sub> SO <sub>4</sub> + H <sub>2</sub> O System. Journal of Chemical & Engineering Data, 2009, 54, 520-525.	1.0	9
84	Understanding the High Longitudinal Relaxivity of Gd(DTPA)-Intercalated (Zn,Al)-Layered Double Hydroxide Nanoparticles. Inorganic Chemistry, 2019, 58, 12112-12121.	1.9	9
85	Physicochemical Investigations of a Binary Mixture Containing Ionic Liquid 1-Butyl-1-methylpyrrolidinium Bis(trifluoromethylsulfonyl)imide and Diethyl Carbonate. Journal of Chemical & Engineering Data, 2020, 65, 68-80.	1.0	9
86	The effect of nanostructure dimensionality on the photoelectrochemical properties of derived TiO <sub>2</sub> films. Electrochimica Acta, 2021, 373, 137900.	2.6	9
87	Influence of adsorption of ionic liquid constituents on the stability of layered double hydroxide colloids. Soft Matter, 2021, 17, 9116-9124.	1.2	8
88	Design of hybrid biocatalysts by controlled heteroaggregation of manganese oxide and sulfate latex particles to combat reactive oxygen species. Journal of Materials Chemistry B, 2021, 9, 4929-4940.	2.9	8
89	Design of nucleic acid-layered double hydroxide nanohybrids. Colloid and Polymer Science, 2017, 295, 1463-1473.	1.0	7
90	Catalytic antioxidant nanocomposites based on sequential adsorption of redox active metal complexes and polyelectrolytes on nanoclay particles. Dalton Transactions, 2021, 50, 2426-2435.	1.6	7

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91	Synthesis and IR spectroscopic characterisation of immobilised superoxide dismutase (SOD) mimicking complexes. <i>Journal of Molecular Structure</i> , 2005, 744-747, 495-500.	1.8	6
92	Mimicking catalase and catecholase enzymes by copper(II)-containing complexes. <i>Open Chemistry</i> , 2006, 4, 118-134.	1.0	6
93	Hydrolysis of dinucleoside phosphates " mRNA 5' cap analogues " promoted by a binuclear copper(II)-zinc(II) complex. <i>Journal of Inorganic Biochemistry</i> , 2007, 101, 1400-1403.	1.5	6
94	Self-assembly of delaminated layered double hydroxide nanosheets for the recovery of lamellar structure. <i>Colloids and Interface Science Communications</i> , 2022, 46, 100564.	2.0	6
95	Nanoclay-based sensor composites for the facile detection of molecular antioxidants. <i>Analyst, The</i> , 2022, 147, 1367-1374.	1.7	6
96	Effect of Water and Salt on the Colloidal Stability of Latex Particles in Ionic Liquid Solutions. <i>Colloids and Interfaces</i> , 2022, 6, 2.	0.9	6
97	Antioxidant colloids via heteroaggregation of cerium oxide nanoparticles and latex beads. <i>Colloids and Surfaces B: Biointerfaces</i> , 2022, 216, 112531.	2.5	6
98	Cu <sup>2+</sup> TerPy Complexes as Catalysts of the Cleavage of the 5' cap Structure of mRNA. <i>Nucleosides, Nucleotides and Nucleic Acids</i> , 2007, 26, 1423-1426.	0.4	5
99	Dendrimer induced interaction forces between colloidal particles revealed by direct force and aggregation measurements. <i>Journal of Colloid and Interface Science</i> , 2014, 417, 346-355.	5.0	5
100	Potassium Sensitive Optical Nanosensors Containing Voltage Sensitive Dyes. <i>Chimia</i> , 2015, 69, 196.	0.3	5
101	Electrochemical study of anatase TiO <sub>2</sub> nanotube array electrode in electrolyte based on 1,3-diethylimidazolium bis(trifluoromethylsulfonyl)imide ionic liquid. <i>Ionics</i> , 2019, 25, 5501-5513.	1.2	4
102	Layered Double Hydroxide-Based Nanomaterials-From Fundamentals to Applications. <i>Nanomaterials</i> , 2019, 9, 1174.	1.9	4
103	Influencing the texture and morphological properties of layered double hydroxides with the most diluted solvent mixtures " The effect of 6-8 carbon alcohols and temperature. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 574, 146-153.	2.3	4
104	Modeling copper-containing enzyme mimics. <i>Computational and Theoretical Chemistry</i> , 2003, 666-667, 451-453.	1.5	3
105	Thermal stabilities of nanocomposites: Mono- or binuclear Cu complexes intercalated or immobilised in/on siliceous materials. <i>Nanopages</i> , 2009, 4, 1-12.	0.2	3
106	Formulation of Multifunctional Material Dispersions. <i>Chimia</i> , 2014, 68, 454.	0.3	3
107	Development of polymer-based multifunctional composite particles of protease and peroxidase activities. <i>Journal of Materials Chemistry B</i> , 2022, 10, 2523-2533.	2.9	3
108	Superoxide dismutase mimicking nanocomposites based on immobilization of metal complexes on nanotubular carriers. <i>Journal of Molecular Structure</i> , 2022, 1256, 132492.	1.8	3

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109	Electrospray ionization and matrix-assisted laser desorption/ionization mass spectrometric investigation of an imidazolato-bridged Cu-Zn complex that mimics superoxide dismutase. <i>Rapid Communications in Mass Spectrometry</i> , 2005, 19, 2878-2882.	0.7	2
110	Exploring Forces between Individual Colloidal Particles with the Atomic Force Microscope. <i>Chimia</i> , 2012, 66, 214.	0.3	2
111	Stability of Boron Nitride Nanosphere Dispersions in the Presence of Polyelectrolytes. <i>Langmuir</i> , 2021, 37, 5399-5407.	1.6	2
112	Solvation of nonionic poly(ethylene oxide) surfactant Brij 35 in organic and aqueous-organic solvents. <i>Journal of Colloid and Interface Science</i> , 2021, 594, 150-159.	5.0	1
113	Towards Ångström Resolution with Dynamic Light Scattering. <i>Chimia</i> , 2011, 65, 439-439.	0.3	0