Ruben Dario Falcone

List of Publications by Year
in descending order

88 papers	2,055 citations	218677 26 h-index	265206 42 g-index
90 all docs	90 docs citations	90 times ranked	1365 citing authors

#	Article	IF	Citations
1	Using Kamletâ˘Taft Solvent Descriptors To Explain the Reactivity of Anionic Nucleophiles in Ionic Liquids. Journal of Organic Chemistry, 2006, 71, 8847-8853.	3.2	148
2	Properties of AOT Aqueous and Nonaqueous Microemulsions Sensed by Optical Molecular Probes. Langmuir, 2000, 16, 3070-3076.	3.5	106
3	Acidâ˘Base and Aggregation Processes of Acridine Orange Base in n-Heptane/AOT/Water Reverse Micelles. Langmuir, 2002, 18, 2039-2047.	3.5	102
4	Cationic Reverse Micelles Create Water with Super Hydrogenâ€Bondâ€Donor Capacity for Enzymatic Catalysis: Hydrolysis of 2â€Naphthyl Acetate by Î±â€Chymotrypsin. Chemistry - A European Journal, 2010, 16, 8887-8893.	3.3	75
5	Effect of the Addition of a Nonaqueous Polar Solvent (Glycerol) on Enzymatic Catalysis in Reverse Micelles. Hydrolysis of 2-Naphthyl Acetate by Î±-Chymotrypsin. Langmuir, 2004, 20, 5732-5737.	3.5	69
6	On the Formation of New Reverse Micelles: A Comparative Study of Benzene/Surfactants/Ionic Liquids Systems Using UVâ˘Visible Absorption Spectroscopy and Dynamic Light Scattering. Langmuir, 2009, 25, 10426-10429.	3.5	67
7	What are the factors that control non-aqueous/AOT/n-heptane reverse micelle sizes? A dynamic light scattering study. Physical Chemistry Chemical Physics, 2009, 11, 11096.	2.8	67
8	A Unique Ionic Liquid with Amphiphilic Properties That Can Form Reverse Micelles and Spontaneous Unilamellar Vesicles. Chemistry - A European Journal, 2012, 18, 15598-15601.	3.3	61
9	The use of acridine orange base (AOB) as molecular probe to characterize nonaqueous AOT reverse micelles. Journal of Colloid and Interface Science, 2006, 296, 356-364.	9.4	52
10	Solvent Blends Can Control Cationic Reversed Micellar Interdroplet Interactions. The Effect of <i>n-</i>Heptane:Benzene Mixture on BHDC Reversed Micellar Interfacial Properties: Droplet Sizes and Micropolarity. Journal of Physical Chemistry B, 2011, 115, 12076-12084.	2.6	52
11	AOT reverse micelles as versatile reaction media for chitosan nanoparticles synthesis. Carbohydrate Polymers, 2017, 171, 85-93.	10.2	48
12	Chitosan nanoparticles enhance the antibacterial activity of the native polymer against bovine mastitis pathogens. Carbohydrate Polymers, 2019, 213, 1-9.	10.2	45
13	Effect of the Constrained Environment on the Interactions between the Surfactant and Different Polar Solvents Encapsulated within AOT Reverse Micelles. ChemPhysChem, 2009, 10, 2034-2040.	2.1	43
14	Exploratory Study of the Effect of Polar Solvents upon the Partitioning of Solutes in Nonaqueous Reverse Micellar Solutions. Langmuir, 2003, 19, 2067-2071.	3.5	42
15	Characterization of Multifunctional Reverse Micellesâ€™ Interfaces Using Hemicyanines as Molecular Probes. II: Effect of the Surfactant. Journal of Physical Chemistry B, 2009, 113, 6718-6724.	2.6	40
16	Interfacial water with special electron donor properties: Effect of waterâ€“surfactant interaction in confined reversed micellar environments and its influence on the coordination chemistry of a copper complex. Journal of Colloid and Interface Science, 2011, 355, 124-130.	9.4	40
17	Layered Structure of Roomâ€Temperature Ionic Liquids in Microemulsions by Multinuclear NMR Spectroscopic Studies. Chemistry - A European Journal, 2011, 17, 6837-6846.	3.3	38
18	On the Investigation of the Dropletâ€“Droplet Interactions of Sodium 1,4â€Bis(2â€ethylhexyl) Sulfosuccinate Reverse Micelles upon Changing the External Solvent Composition and Their Impact on Gold Nanoparticle Synthesis. European Journal of Inorganic Chemistry, 2014, 2014, 2095-2102.	2.0	36

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19	How the cation 1-butyl-3-methylimidazolium impacts the interaction between the entrapped water and the reverse micelle interface created with an ionic liquid-like surfactant. Soft Matter, 2016, 12, 830-844.	2.7	36
20	Comparison between Two Anionic Reverse Micelle Interfaces: The Role of Waterâ€“Surfactant Interactions in Interfacial Properties. ChemPhysChem, 2012, 13, 115-123.	2.1	35
21	The effect of different interfaces and confinement on the structure of the ionic liquid 1-butyl-3-methylimidazolium bis(trifluoromethylsulfonyl)imide entrapped in cationic and anionic reverse micelles. Physical Chemistry Chemical Physics, 2012, 14, 3460.	2.8	33
22	Ionic Liquids Entrapped in Reverse Micelles as Nanoreactors for Bimolecular Nucleophilic Substitution Reaction. Effect of the Confinement on the Chloride Ion Availability. Langmuir, 2014, 30, 12130-12137.	3.5	33
23	PRODAN Dual Emission Feature To Monitor BHDC Interfacial Properties Changes with the External Organic Solvent Composition. Langmuir, 2013, 29, 3556-3566.	3.5	31
24	Physicochemical, in vitro antioxidant and cytotoxic properties of water-soluble chitosan-lactose derivatives. Carbohydrate Polymers, 2019, 224, 115158.	10.2	31
25	A New Organized Media: Glycerol:<i>N,N-</i>Dimethylformamide Mixtures/AOT/<i>n</i>-Heptane Reversed Micelles. The Effect of Confinement on Preferential Solvation. Journal of Physical Chemistry B, 2011, 115, 5894-5902.	2.6	30
26	Role of micellar interface in the synthesis of chitosan nanoparticles formulated by reverse micellar method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 599, 124876.	4.7	30
27	Role of the Medium on the C343 Inter/Intramolecular Hydrogen Bond Interactions. An Absorption, Emission, and 1HNMR Investigation of C343 in Benzene/n-Heptane Mixtures. Journal of Physical Chemistry A, 2010, 114, 7326-7330.	2.5	26
28	More Evidence on the Control of Reverse Micelles Sizes. Combination of Different Techniques as a Powerful Tool to Monitor AOT Reversed Micelles Properties. Journal of Physical Chemistry B, 2013, 117, 3818-3828.	2.6	26
29	The impact of the polar core size and external organic media composition on micelleâ€“micelle interactions: the effect on gold nanoparticle synthesis. New Journal of Chemistry, 2015, 39, 8887-8895.	2.8	26
30	Gold nanoparticles stabilized with sulphonated imidazolium salts in water and reverse micelles. Royal Society Open Science, 2017, 4, 170481.	2.4	26
31	Characterization of Multifunctional Reverse Micellesâ€™ Interfaces Using Hemicyanines as Molecular Probes. I. Effect of the Hemicyaninesâ€™ Structure. Journal of Physical Chemistry B, 2009, 113, 4284-4292.	2.6	25
32	Effect of the Cationic Surfactant Moiety on the Structure of Water Entrapped in Two Catanionic Reverse Micelles Created from Ionic Liquidâ€Like Surfactants. ChemPhysChem, 2014, 15, 3097-3109.	2.1	24
33	Use of Ionic Liquids-like Surfactants for the Generation of Unilamellar Vesicles with Potential Applications in Biomedicine. Langmuir, 2019, 35, 13332-13339.	3.5	23
34	Singularities in the physicochemical properties of spontaneous AOT-BHD unilamellar vesicles in comparison with DOPC vesicles. Physical Chemistry Chemical Physics, 2015, 17, 17112-17121.	2.8	21
35	Unique catanionic vesicles as a potential â€œNano-Taxiâ€•for drug delivery systems. In vitro and in vivo biocompatibility evaluation. RSC Advances, 2017, 7, 5372-5380.	3.6	21
36	An Interesting Case Where Water Behaves as a Unique Solvent. 4-Aminophthalimide Emission Profile to Monitor Aqueous Environment. Journal of Physical Chemistry B, 2013, 117, 2160-2168.	2.6	20

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37	Electron donor ionic liquids entrapped in anionic and cationic reverse micelles. Effects of the interface on the ionic liquidâ€“surfactant interactions. Physical Chemistry Chemical Physics, 2013, 15, 16746.	2.8	20
38	The use of two non-toxic lipophilic oils to generate environmentally friendly anionic reverse micelles without cosurfactant. Comparison with the behavior found for traditional organic non-polar solvents. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 457, 354-362.	4.7	18
39	A protic ionic liquid, when entrapped in cationic reverse micelles, can be used as a suitable solvent for a bimolecular nucleophilic substitution reaction. Organic and Biomolecular Chemistry, 2016, 14, 3170-3177.	2.8	18
40	How TOPO affects the interface of the novel mixed water/AOT:TOPO/n-heptane reverse micelles: dynamic light scattering and Fourier transform infrared spectroscopy studies. Physical Chemistry Chemical Physics, 2014, 16, 15457-15468.	2.8	17
41	Improvement of the amphiphilic properties of a dialkyl phosphate by creation of a protic ionic liquid-like surfactant. RSC Advances, 2017, 7, 44743-44750.	3.6	17
42	Choline [Amino Acid] Ionic Liquid/Water Mixtures: A Triple Effect for the Degradation of an Organophosphorus Pesticide. ACS Omega, 2020, 5, 26562-26572.	3.5	17
43	Interfacial properties modulated by the water confinement in reverse micelles created by the ionic liquid-like surfactant bmim-AOT. Soft Matter, 2019, 15, 947-955.	2.7	16
44	Biocompatible Solvents and Ionic Liquid-Based Surfactants as Sustainable Components to Formulate Environmentally Friendly Organized Systems. Polymers, 2021, 13, 1378.	4.5	15
45	Effect of Confinement on the Properties of Sequestered Mixed Polar Solvents: Enzymatic Catalysis in Nonaqueous 1,4â€Bisâ€2â€ethylhexylsulfosuccinate Reverse Micelles. ChemPhysChem, 2016, 17, 1678-1685.	2.1	13
46	How the Type of Cosurfactant Impacts Strongly on the Size and Interfacial Composition in Gemini 12-2-12 RMs Explored by DLS, SLS, and FTIR Techniques. Journal of Physical Chemistry B, 2016, 120, 467-476.	2.6	12
47	Characterization of Reverse Micelles Formulated with the Ionic-Liquid-like Surfactant Bmim-AOT and Comparison with the Traditional Na-AOT: Dynamic Light Scattering, 1H NMR Spectroscopy, and Hydrolysis Reaction of Carbonate as a Probe. Langmuir, 2019, 35, 12744-12753.	3.5	12
48	Influence of the AOT Counterion Chemical Structure on the Generation of Organized Systems. Langmuir, 2020, 36, 10785-10793.	3.5	12
49	Combination of a protic ionic liquid-like surfactant and biocompatible solvents to generate environmentally friendly anionic reverse micelles. New Journal of Chemistry, 2019, 43, 10398-10404.	2.8	11
50	Catanionic nanocarriers as a potential vehicle for insulin delivery. Colloids and Surfaces B: Biointerfaces, 2020, 188, 110759.	5.0	11
51	Water-soluble gold nanoparticles: recyclable catalysts for the reduction of aromatic nitro compounds in water. RSC Advances, 2020, 10, 15065-15071.	3.6	11
52	On the characterization of NaDEHP/n-heptane nonaqueous reverse micelles: the effect of the polar solvent. Physical Chemistry Chemical Physics, 2015, 17, 7002-7011.	2.8	10
53	Micropolarity and Hydrogenâ€Bond Donor Ability of Environmentally Friendly Anionic Reverse Micelles Explored by UV/Vis Absorption of a Molecular Probe and FTIR Spectroscopy. ChemPhysChem, 2018, 19, 759-765.	2.1	10
54	Structural Characterization of Biocompatible Reverse Micelles Using Small-Angle X-ray Scattering, ³¹P Nuclear Magnetic Resonance, and Fluorescence Spectroscopy. Journal of Physical Chemistry B, 2018, 122, 4366-4375.	2.6	10

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55	The ionic liquid-surfactant bmim-AOT and nontoxic lipophilic solvents as components of reverse micelles alternative to the traditional systems. A study by 1H NMR spectroscopy. Journal of Molecular Liquids, 2020, 304, 112762.	4.9	10
56	Nanoscale Control Over Interfacial Properties in Mixed Reverse Micelles Formulated by Using Sodium 1,4â€bisâ€2â€ethylhexylsulfosuccinate and Triâ€<i>n</i>â€octyl Phosphine Oxide Surfactants. ChemPhysChem, 2016, 17, 2407-2414.	2.1	9
57	A comparative study of antimicrobial activity of differently-synthesized chitosan nanoparticles against bovine mastitis pathogens. Soft Matter, 2021, 17, 694-703.	2.7	9
58	Binding of o-nitroaniline to nonaqueous AOT reverse micelles. Arkivoc, 2011, 2011, 369-379.	0.5	9
59	Spontaneous catanionic vesicles formed by the interaction between an anionic Î²-cyclodextrins derivative and a cationic surfactant. RSC Advances, 2018, 8, 12535-12539.	3.6	8
60	Gold Nanoparticles Stabilized by Sulfonatedâ€Imidazolium Salts as Promising Catalyst in Water. ChemistrySelect, 2019, 4, 13496-13502.	1.5	8
61	Properties of AOT reverse micelle interfaces with different polar solvents. Journal of Physical Organic Chemistry, 2016, 29, 580-585.	1.9	7
62	Modified reverse micelle method as facile way to obtain several gold nanoparticle morphologies. Journal of Molecular Liquids, 2021, 331, 115709.	4.9	7
63	Carrier in carrier: Catanionic vesicles based on amphiphilic cyclodextrins complexed with DNA as nanocarriers of doxorubicin. Journal of Molecular Liquids, 2022, 360, 119488.	4.9	7
64	C343 behavior in benzene/AOT reverse micelles. The role of the dye solubilization in the non-polar organic pseudophase. Dyes and Pigments, 2012, 95, 290-295.	3.7	6
65	Subtleties of catanionic surfactant reverse micelle assemblies revealed by a fluorescent molecular probe. Methods and Applications in Fluorescence, 2017, 5, 044001.	2.3	6
66	Supramolecular Systems as an Alternative for Enzymatic Degradation of 1â€Naphthyl Methylcarbamate (Carbaryl) Pesticide. ChemistrySelect, 2019, 4, 7204-7210.	1.5	6
67	Interfacial Dynamics and Its Relations with â€œNegativeâ€•Surface Viscosities Measured at Waterâ€“Air Interfaces Covered with a Cationic Surfactant. Langmuir, 2019, 35, 8333-8343.	3.5	6
68	Catanionic Reverse Micelles as an Optimal Microenvironment To Alter the Water Electron Donor Capacity in a S_N2 Reaction. Journal of Organic Chemistry, 2019, 84, 1185-1191.	3.2	6
69	Imim-DEHP reverse micelles investigated with two molecular probes reveals how are the interfacial properties and the coordination behavior of the surfactant. Journal of Molecular Liquids, 2020, 313, 113592.	4.9	6
70	Amphiphilic ionic liquids as sustainable components to formulate promising vesicles to be used in nanomedicine. Current Opinion in Green and Sustainable Chemistry, 2020, 26, 100382.	5.9	6
71	Comparison Between Aqueous and Nonaqueous AOT-Heptane Reverse Micelles Using Acridine Orange as Molecular Probe. Molecules, 2000, 5, 553-554.	3.8	5
72	Non-aqueous reverse micelles created with a cationic surfactant: Encapsulating ethylene glycol in BHDC/non-polar solvent blends. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 509, 467-473.	4.7	5

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73	On the design of a versatile ionic liquid, AOBH-DEHP, which can be used as a new molecular probe to investigate supramolecular assemblies. Dyes and Pigments, 2017, 138, 68-76.	3.7	5
74	Spontaneous formation of unilamellar vesicles based on the surfactant 1-methylimidazolium bis-(2-ethylhexyl) phosphate, evaluated as a function of pH and in saline solution. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 606, 125435.	4.7	5
75	Probing the microenvironment of unimicelles constituted of amphiphilic hyperbranched polyethyleneimine using 1-methyl-8-oxyquinolinium betaine. Physical Chemistry Chemical Physics, 2014, 16, 13458-13464.	2.8	4
76	How the external solvent in biocompatible reverse micelles can improve the alkaline phosphatase behavior. Organic and Biomolecular Chemistry, 2021, 19, 4969-4977.	2.8	4
77	Monitoring the microenvironment inside polymeric micelles using the fluorescence probe 6-propionyl-2-dimethylaminonaphthalene (PRODAN). Journal of Molecular Liquids, 2021, 343, 117552.	4.9	4
78	Understanding Metallic Nanoparticles Stabilization in Water by Imidazolium Salts: A Complete Physicochemical Study. ChemistrySelect, 2020, 5, 11264-11271.	1.5	3
79	Hydrolysis Reactions of Two Benzoyl Chlorides as a Probe to Investigate Reverse Micelles Formed by the Ionic Liquid-Surfactant bmimâ€“AOT. Journal of Organic Chemistry, 2020, 85, 15006-15014.	3.2	3
80	Characterization of Anionic Reverse Micelles Formulated on Biobased Solvents as Replacing Conventional Nonpolar Organic Solvents. ACS Sustainable Chemistry and Engineering, 2020, 8, 5478-5484.	6.7	3
81	New Insights into the Catalytic Activity and Reusability of Waterâ€Soluble Silver Nanoparticles. ChemistrySelect, 2021, 6, 7436-7442.	1.5	3
82	Is it Necessary for the Use of Fluorinated Compounds to Formulate Reverse Micelles in a Supercritical Fluid? Searching the Best Cosurfactant to Create â€œGreenâ€• AOT Reverse Micelle Media. Langmuir, 2021, 37, 445-453.	3.5	3
83	Reply to â€œComment on â€˜An Interesting Case Where Water Behaves as a Unique Solvent. 4-Aminophthalimide Emission Profile to Monitor Aqueous Environmentâ€™â€• Journal of Physical Chemistry B, 2013, 117, 5389-5391.	2.6	2
84	Electrochemical Methodology as an Useful Tool for the Interfacial Characterization of Aqueous Reverse Micelles. ChemistrySelect, 2019, 4, 14309-14314.	1.5	2
85	Production of Pd nanoparticles in microemulsions. Effect of reaction rates on the particle size. Physical Chemistry Chemical Physics, 2022, 24, 1692-1701.	2.8	2
86	The Use of AOBHâ€DEHP Molecular Probe to Characterize BHDC Reverse Micelles Interfaces. Insights on the Interfacial Water Structure. ChemistrySelect, 2017, 2, 2880-2887.	1.5	1
87	Highly Stable Nanostructured Magnetic Vesicles as Doxorubicin Carriers for Fieldâ€assisted Therapies. ChemNanoMat, 2022, 8, .	2.8	1
88	Deciphering Solvation Effects in Aqueous Binary Mixtures by Fluorescence Behavior of 4-Aminophthalimide: The Comparison Between Ionic Liquids and Alcohols as Cosolvents. Journal of Physical Chemistry B, 2021, 125, 13203-13211.	2.6	0