Pedro Tartaj

List of Publications by Citations

93 papers	5,250 citations	35 h-index	71 g-index
102 ext. papers	5,478 ext. citations	7.4 avg, IF	5.59 L-index

#	Paper	IF	Citations
93	The preparation of magnetic nanoparticles for applications in biomedicine. *Journal Physics D: Applied Physics*, **2003**, 36, R182-R197	3	1490
92	Progress in the preparation of magnetic nanoparticles for applications in biomedicine. *Journal Physics D: Applied Physics*, **2009**, 42, 224002	3	295
91	Synthesis of monodisperse superparamagnetic Fe/silica nanospherical composites. *Journal of the American Chemical Society*, **2003**, 125, 15754-5	16.4	220
90	Single-Step Nanoengineering of Silica Coated Maghemite Hollow Spheres with Tunable Magnetic Properties. *Advanced Materials*, **2001**, 13, 1620-1624	24	207
89	Advances in magnetic nanoparticles for biotechnology applications. *Journal of Magnetism and Magnetic Materials*, **2005**, 290-291, 28-34	2.8	190
88	Fe-based nanoparticulate metallic alloys as contrast agents for magnetic resonance imaging. *Biomaterials*, **2005**, 26, 5695-703	15.6	106
87	Synthetic Route to Nanocomposites Made Up of Inorganic Nanoparticles Confined within a Hollow Mesoporous Carbon Shell. *Chemistry of Materials*, **2007**, 19, 5418-5423	9.6	94
86	Surface Enthalpy, Enthalpy of Water Adsorption, and Phase Stability in Nanocrystalline Monoclinic Zirconia. *Journal of the American Ceramic Society*, **2009**, 92, 133-140	3.8	90
85	Microemulsion-Assisted Synthesis of Tunable Superparamagnetic Composites. *Chemistry of Materials*, **2002**, 14, 4396-4402	9.6	89
84	A Facile Route for the Preparation of Superparamagnetic Porous Carbons. *Chemistry of Materials*, **2006**, 18, 1675-1679	9.6	81
83	Magnetic Behavior of □Fe2O3Nanocrystals Dispersed in Colloidal Silica Particles. *Journal of Physical Chemistry B*, **2003**, 107, 20-24	3.4	73
82	Synthesis of Nanomagnets Dispersed in Colloidal Silica Cages with Applications in Chemical Separation. *Langmuir*, **2002**, 18, 4556-4558	4	73
81	Magnetic behavior of superparamagnetic Fe nanocrystals confined inside submicron-sized spherical silica particles. *Physical Review B*, **2004**, 69,	3.3	72
80	Preparation, Characterization, and Enzyme Immobilization Capacities of Superparamagnetic Silica/Iron Oxide Nanocomposites with Mesostructured Porosity. *Chemistry of Materials*, **2009**, 21, 1806-1814	9.6	66
79	Interfacial and Rheological Characteristics of Maghemite Aqueous Suspensions. *Journal of Colloid and Interface Science*, **1998**, 205, 470-475	9.3	65
78	Sub-100 nm TiO2 mesocrystalline assemblies with mesopores: preparation, characterization, enzyme immobilization and photocatalytic properties. *Chemical Communications*, **2011**, 47, 256-8	5.8	63
77	Monodisperse carbon-polymer mesoporous spheres with magnetic functionality and adjustable pore-size distribution. *Small*, **2007**, 3, 275-9	11	61

76	Nanomagnets-From Fundamental Physics to Biomedicine. *Current Nanoscience*, **2006**, 2, 43-53	1.4	61
75	Fabrication of Monodisperse Mesoporous Carbon Capsules Decorated with Ferrite Nanoparticles. *Journal of Physical Chemistry C*, **2008**, 112, 3648-3654	3.8	59
74	Multifunctional response of anatase nanostructures based on 25 nm mesocrystal-like porous assemblies. *Advanced Materials*, **2011**, 23, 4904-7	24	58
73	Core-shell iron-iron oxide nanoparticles synthesized by laser-induced pyrolysis. *Small*, **2006**, 2, 1476-83	11	58
72	Surface Instability of Serpentine in Aqueous Suspensions. *Journal of Colloid and Interface Science*, **2000**, 231, 176-181	9.3	54
71	chapter 5 Synthesis, Properties and Biomedical Applications of Magnetic Nanoparticles. *Handbook of Magnetic Materials*, **2006**, 16, 403-482	1.3	53
70	Structural and magnetic transformation of monodispersed iron oxide particles in a reducing atmosphere. *Journal of Applied Physics*, **2002**, 92, 2079-2085	2.5	52
69	A Facile Synthetic Route for the Preparation of Superparamagnetic Iron Oxide Nanorods and Nanorices with Tunable Surface Functionality. *Advanced Materials*, **2008**, 20, 1760-1765	24	45
68	Microstructural Evolution of Iron-Oxide-Doped Alumina Nanoparticles Synthesized from Microemulsions. *Chemistry of Materials*, **2002**, 14, 536-541	9.6	43
67	Preparation of high acicular and uniform goethiteparticles by a modified-carbonate route. *Journal of Materials Chemistry*, **2000**, 10, 2561-2565		42
66	Computational Investigation of Li Insertion in Li3VO4. *Chemistry of Materials*, **2016**, 28, 5643-5651	9.6	40
65	Iron Zircon Pigments Prepared by Pyrolysis of Aerosols. *Journal of Solid State Chemistry*, **1997**, 128, 102-108	3.3	39
64	Iron oxide porous nanorods with different textural properties and surface composition: Preparation, characterization and electrochemical lithium storage capabilities. *Journal of Power Sources*, **2011**, 196, 2164-2170	8.9	38
63	Zircon formation from amorphous spherical ZrSiO4 particles obtained by hydrolysis of aerosols. *Journal of Materials Science*, **1994**, 29, 6533-6538	4.3	38
62	Aerosol-Assisted Synthesis of Colloidal Aggregates with Different Morphology: Toward the Electrochemical Optimization of Li3VO4 Battery Anodes Using Scalable Routes. *Chemistry of Materials*, **2016**, 28, 986-993	9.6	37
61	From Hollow to Dense Spheres: Control of Dipolar Interactions by Tailoring the Architecture in Colloidal Aggregates of Superparamagnetic Iron Oxide Nanocrystals. *Advanced Materials*, **2004**, 16, 529-533	24	37
60	TiO Nanostructures as Anode Materials for Li/Na-Ion Batteries. *Chemical Record*, **2018**, 18, 1178-1191	6.6	35
59	Valence and Localization of Praseodymium in Pr-Doped Zircon. *Journal of Solid State Chemistry*, **1998**, 139, 412-415	3.3	35

58	Preparation, Characterization, and Magnetic Properties of Fe-Based Alloy Particles with Elongated Morphology. *Chemistry of Materials*, **2003**, 15, 3558-3563	9.6	34
57	The formation of zircon from amorphous ZrO2 SiO2 powders. *Journal of Materials Science*, **1996**, 31, 6089-6094	4.3	34
56	Superparamagnetic Composites: Magnetism with No Memory. *European Journal of Inorganic Chemistry*, **2009**, 2009, 333-343	2.3	33
55	The effects of the NaF flux on the oxidation state and localisation of praseodymium in Pr-doped zircon pigments. *Journal of the European Ceramic Society*, **1999**, 19, 641-648	6	32
54	Infrared optical properties of zircon. *Materials Research Bulletin*, **1994**, 29, 417-426	5.1	32
53	Magnetically separable bimodal mesoporous carbons with a large capacity for the immobilization of biomolecules. *Carbon*, **2009**, 47, 2519-2527	10.4	31
52	Yttria-Coated FeCo Magnetic Nanoneedles. *Chemistry of Materials*, **2004**, 16, 3119-3124	9.6	31
51	Electrokinetic Behavior and Stability of Silicon Carbide Nanoparticulate Dispersions. *Journal of the American Ceramic Society*, **2005**, 81, 389-394	3.8	31
50	Spectroscopic Studies on the Localization of Vanadium(IV) in Vanadium-Doped Zircon Pigments. *Journal of the American Ceramic Society*, **2005**, 81, 395-400	3.8	30
49	Signatures of clustering in superparamagnetic colloidal nanocomposites of an inorganic and hybrid nature. *Small*, **2008**, 4, 254-61	11	29
48	Preparation, characterization and sintering behavior of spherical iron oxide doped alumina particles. *Acta Materialia*, **2002**, 50, 5-12	8.4	28
47	Facile synthetic route to nanosized ferrites by using mesoporous silica as a hard template. *Nanotechnology*, **2007**, 18, 145603	3.4	27
46	Preparation of nanospherical amorphous zirconpowders by a microemulsion-mediated process. *Journal of Materials Chemistry*, **2000**, 10, 2786-2790		27
45	Two-Stage Sintering of Nanosize Pure Zirconia. *Journal of the American Ceramic Society*, **2009**, 92, S103-S106	3.8	26
44	Metallic nanomagnets randomly dispersed in spherical colloids: toward a universal route for the preparation of colloidal composites containing nanoparticles. *Angewandte Chemie - International Edition*, **2004**, 43, 6304-7	16.4	26
43	Porous inorganic nanostructures with colloidal dimensions: synthesis and applications in electrochemical energy devices. *Chemical Communications*, **2014**, 50, 2077-88	5.8	22
42	Probing nanomagnets interactions inside colloidal superparamagnetic composites: aerosol versus surface template methods. *ChemPhysChem*, **2003**, 4, 1371-5	3.2	22
41	Preparation of Blue Vanadium-Zircon Pigments by Aerosols Hydrolysis. *Journal of the American Ceramic Society*, **1995**, 78, 1147-1152	3.8	22

40	Templated Synthesis of Mesoporous Superparamagnetic Polymers. *Advanced Functional Materials*, **2007**, 17, 2321-2327	15.6	21
39	Fabrication of mesoporous SiO(2)-C-Fe(3)O(4)/gamma-Fe(2)O(3) and SiO(2)-C-Fe magnetic composites. *Journal of Colloid and Interface Science*, **2009**, 340, 230-6	9.3	20
38	Electrochemical response in aprotic ionic liquid electrolytes of TiO2 anatase anodes based on mesoporous mesocrystals with uniform colloidal size. *Journal of Power Sources*, **2015**, 273, 368-374	8.9	19
37	Iron oxide nanosized clusters embedded in porous nanorods: a new colloidal design to enhance capabilities of MRI contrast agents. *ACS Nano*, **2010**, 4, 2095-103	16.7	19
36	Aggregation state and magnetic properties of magnetite nanoparticles controlled by an optimized silica coating. *Journal of Applied Physics*, **2017**, 121, 044304	2.5	18
35	Origin of color in aerosol-derived vanadium-doped zirconia pigments. *Journal of Materials Research*, **1998**, 13, 413-420	2.5	18
34	Asymmetrical imidazolium-trialkylammonium room temperature dicationic ionic liquid electrolytes for Li-ion batteries. *Electrochimica Acta*, **2018**, 280, 171-180	6.7	18
33	Zircon Formation from Nanosized Powders Obtained by a Reverse Micelle Process. *Journal of the American Ceramic Society*, **2004**, 88, 222-224	3.8	17
32	Preparation by hydrolysis of aerosols and colour properties of Cr-doped and Co-doped zircon powders. *Journal of the European Ceramic Society*, **1998**, 18, 821-830	6	16
31	Controlled release of precipitating agents through solvothermal destabilization of microemulsions: one-pot synthesis of monoclinic zirconia nanostructures. *Journal of Materials Chemistry*, **2007**, 17, 1958-1963		16
30	CaSO4 Mineralization in Carboxy- and Amino-Functionalized Reverse Micelles Unravels Shape-Dependent Transformations and Long-Term Stabilization Pathways for Poorly Hydrated Nanophases (Bassanite). *Crystal Growth and Design*, **2015**, 15, 2809-2816	3.5	15
29	Layered manganates from soft-templates: preparation, characterization and enhanced dye demethylation capabilities. *Journal of Materials Chemistry*, **2012**, 22, 17718		15
28	Controlled formation of porous magnetic nanorods via a liquid/liquid solvothermal method. *Chemical Communications*, **2008**, 4168-70	5.8	15
27	Synthesis of acicular Fe□o nanoparticles and the effect of Al addition on their magnetic properties. *Nanotechnology*, **2004**, 15, S190-S196	3.4	15
26	Straightforward High-Pressure Synthesis and Characterization of Indium-Based Thiospinels: Photocatalytic Potential for Hydrogen Production. *European Journal of Inorganic Chemistry*, **2016**, 2016, 1558-1565	2.3	11
25	Toward a Better Understanding and Optimization of the Electrochemical Activity of Na-Ion TiO Anatase Anodes Using Uniform Nanostructures and Ionic Liquid Electrolytes. *ACS Omega*, **2017**, 2, 3647-3657	3.9	10
24	Operando monitoring the nanometric morphological evolution of TiO nanoparticles in a Na-ion battery. *Materials Today Energy*, **2018**, 10, 23-27	7	9
23	Mineral-Content and Particle-Size Effects on the Colloidal Properties of Concentrated Lateritic Suspensions. *Clays and Clay Minerals*, **1999**, 47, 515-521	2.1	9

22	Probing the Catalytic Activity of Sulfate-Derived Pristine and Post-Treated Porous TiO(101) Anatase Mesocrystals by the Oxidative Desulfurization of Dibenzothiophenes. *ACS Omega*, **2017**, 2, 2351-2359	3.9	8
21	Sol-gel Cyclic Self-Production of Al2O3 Nanoseeds as a Convenient Route for the Low Cost Preparation of Dense Submicronic Alumina Sintered Monoliths. *Advanced Engineering Materials*, **2002**, 4, 17-21	3.5	8
20	Acicular Metallic Particles Obtained from Al-Doped Goethite Precursors. *Chemistry of Materials*, **2003**, 15, 951-957	9.6	8
19	Rheological properties of concentrated lateritic suspensions **1996**, 266-270		8
18	Engineering Iron Oxide Nanocatalysts by a Microwave-Assisted Polyol Method for the Magnetically Induced Degradation of Organic Pollutants. *Nanomaterials*, **2021**, 11,	5.4	8
17	Biomedical Applications of Organic–Inorganic Hybrid Nanoparticles **2009**, 707-768		8
16	Thermally driven self-assembly of nanomicelles: a facile route to functional monodisperse mesoporous colloidal nanocomposites of inorganic nature and mesoscale size. *Small*, **2010**, 6, 880-6	11	7
15	Surfactant-Free Vanadium Oxides from Reverse Micelles and Organic Oxidants: Solution Processable Nanoribbons with Potential Applicability as Battery Insertion Electrodes Assembled in Different Configurations. *Langmuir*, **2015**, 31, 12489-96	4	6
14	Dissimilar Crystal Dependence of Vanadium Oxide Cathodes in Organic Carbonate and Safe Ionic Liquid Electrolytes. *ACS Applied Materials & Interfaces*, **2016**, 8, 2132-41	9.5	4
13	Facile and predictable synthesis of dual mesoporous-mesosize nanostructures through thermally-driven self-assembly of nanodroplets. *Chemical Communications*, **2009**, 3228-30	5.8	4
12	Direct aerosol synthesis of carboxy-functionalized iron oxide colloids displaying reversible magnetic behavior. *Journal of Colloid and Interface Science*, **2007**, 309, 68-71	9.3	4
11	Correlation between microstructural features and magnetic behavior of Fe-based metallic nanoneedles. *Acta Materialia*, **2006**, 54, 219-224	8.4	4
10	Unravelling an amine-regulated crystallization crossover to prove single/multicore effects on the biomedical and environmental catalytic activity of magnetic iron oxide colloids. *Journal of Colloid and Interface Science*, **2021**, 608, 1585-1597	9.3	4
9	Biomedical Applications of Magnetic Nanoparticles **2007**, 1-7		3
8	Metallic Nanomagnets Randomly Dispersed in Spherical Colloids: Toward a Universal Route for the Preparation of Colloidal Composites Containing Nanoparticles. *Angewandte Chemie*, **2004**, 116, 6464-6467	3.6	3
7	Relationship between the colloidal and rheological properties of mineral suspensions. *Canadian Journal of Chemical Engineering*, **2001**, 79, 608-611	2.3	3
6	Influence of silicate- and magnesium-specific adsorption and particle shape on the rheological behavior of mixed serpentine-goethite suspensions. *Clays and Clay Minerals*, **2002**, 50, 342-347	2.1	3
5	Preparation of Magnetic Nanoparticles for Applications in Biomedicine **2019**, 52-67		2

4	Large-scale synthesis of porous magnetic composites for catalytic applications. *Studies in Surface Science and Catalysis*, **2010**, 347-350	1.8	1
3	Biomedical Applications of Magnetic Nanoparticles **2007**, 1-7		1
2	Microstructural Bases for the Superior Densification of Gels doped with Alumina Nanoseeds. *Advanced Engineering Materials*, **2006**, 8, 93-97	3.5	1
1	A Sustainable Self-Induced Solution Seeding Approach for Multipurpose BiFeO 3 Active Layers in Flexible Electronic Devices. *Advanced Functional Materials*,2112944	15.6	1