

# Pedro J Sebasti o

## List of Publications by Year in descending order

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97  
papers

1,465  
citations

361413

20  
h-index

414414

32  
g-index

100  
all docs

100  
docs citations

100  
times ranked

1283  
citing authors

#	ARTICLE	IF	CITATIONS
1	The art of fitting ordinary differential equations models to experimental results. <i>European Journal of Physics</i> , 2022, 43, 035807.	0.6	2
2	Tailoring the Selective Permeation Properties of Asymmetric Cellulose Acetate/Silica Hybrid Membranes and Characterisation of Water Dynamics in Hydrated Membranes by Deuterium Nuclear Magnetic Resonance. <i>Membranes</i> , 2022, 12, 559.	3.0	1
3	A differential equations model-fitting analysis of COVID-19 epidemiological data to explain multi-wave dynamics. <i>Scientific Reports</i> , 2021, 11, 16312.	3.3	17
4	Characterization of Pectin-Based Gels: A <sup>1</sup> H Nuclear Magnetic Resonance Relaxometry Study. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 12102-12110.	5.2	1
5	Tuning the <sup>1</sup> H NMR Paramagnetic Relaxation Enhancement and Local Order of [Aliquat] <sup>+</sup> -Based Systems Mixed with DMSO. <i>International Journal of Molecular Sciences</i> , 2021, 22, 706.	4.1	5
6	Water Dynamics in Composite Aqueous Suspensions of Cellulose Nanocrystals and a Clay Mineral Studied through Magnetic Resonance Relaxometry. <i>Journal of Physical Chemistry B</i> , 2021, 125, 12787-12796.	2.6	5
7	Physical pendulum model: Fractional differential equation and memory effects. <i>American Journal of Physics</i> , 2020, 88, 962-975.	0.7	6
8	<sup>1</sup> H spin-lattice NMR relaxation in the presence of residual dipolar interactions – Dipolar relaxation enhancement. <i>Journal of Magnetic Resonance</i> , 2020, 318, 106783.	2.1	4
9	Wine traceability and authenticity: approaches for geographical origin, variety and vintage assessment. <i>Ciencia E Tecnica Vitivinicola</i> , 2020, 35, 133-147.	0.9	4
10	NMR studies of molecular ordering and molecular dynamics in a chiral liquid crystal with the $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \text{Sm} \langle / \text{mml:mi} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:mrow} \rangle \langle / \text{mml:msub} \rangle \langle / \text{mml:mrow} \rangle \langle / \text{mml:math} \rangle$ phase. <i>Physical Review E</i> , 2020, 101, 052708.	2.1	7
11	Digital Control of an FFC NMR Relaxometer Power Supply. <i>Lecture Notes in Electrical Engineering</i> , 2020, , 211-228.	0.4	0
12	FFC NMR Relaxometer with Magnetic Flux Density Control. <i>Journal of Low Power Electronics and Applications</i> , 2019, 9, 22.	2.0	1
13	<sup>1</sup> H NMR study of molecular order and dynamics in the liquid crystal CB-C9-CB. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4523-4537.	2.8	10
14	From molecular biaxiality of real board-shaped mesogens to phase biaxiality? On the hunt for the holy grail of liquid crystal science. <i>Soft Matter</i> , 2019, 15, 8496-8511.	2.7	7
15	Use of NMR Relaxometry to identify frankfurters of different meat sources. <i>Molecular Physics</i> , 2019, 117, 1015-1019.	1.7	11
16	The use of fast field cycling to evaluate the time domain relaxation of starches from tropical fruit seeds. <i>Molecular Physics</i> , 2019, 117, 1028-1033.	1.7	4
17	Molecular order and dynamics of water in hybrid cellulose acetate–silica asymmetric membranes. <i>Molecular Physics</i> , 2019, 117, 975-982.	1.7	3
18	Real-time monitoring by proton relaxometry of radical polymerization reactions of acrylamide in aqueous solution. <i>Polymer International</i> , 2018, 67, 675-683.	3.1	9

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19	Influence of TiO <sub>2</sub> nanoparticle on the thermal, morphological and molecular characteristics of PHB matrix. <i>Polymer Testing</i> , 2018, 65, 156-162.	4.8	30
20	Dynamics of binary mixtures of an ionic liquid and ethanol by NMR. <i>Magnetic Resonance in Chemistry</i> , 2018, 56, 108-112.	1.9	3
21	Microcontroller of the power supply of a fast field cycling relaxometer. , 2018, , .		0
22	Spin relaxation studies of Li <sup>+</sup> ion dynamics in polymer gel electrolytes. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 7390-7398.	2.8	14
23	<sup>1</sup> H time domain NMR real time monitoring of polyacrylamide hydrogels synthesis. <i>Polymer Testing</i> , 2017, 60, 396-404.	4.8	9
24	Study of large-angle anharmonic oscillations of a physical pendulum using an acceleration sensor. <i>European Journal of Physics</i> , 2017, 38, 045004.	0.6	20
25	<sup>1</sup> H NMR Relaxometry and Diffusometry Study of Magnetic and Nonmagnetic Ionic Liquid-Based Solutions: Cosolvent and Temperature Effects. <i>Journal of Physical Chemistry B</i> , 2017, 121, 11472-11484.	2.6	9
26	One-step preparation of high-performance bilayer $\gamma$ -alumina ultrafiltration membranes via co-sintering process. <i>Journal of Membrane Science</i> , 2017, 524, 141-150.	8.2	70
27	Synthesis of liquid crystals based on hydrogen-bonding of 4-(Octyloxy)benzoic acid with 4-alkylbenzoic acids. <i>Molecular Crystals and Liquid Crystals</i> , 2016, 630, 87-101.	0.9	11
28	<sup>1</sup> H NMR Relaxometric Study of Molecular Dynamics in a $\alpha$ -Vries Liquid Crystal. <i>Journal of Physical Chemistry B</i> , 2016, 120, 4706-4714.	2.6	14
29	Conventional and Fast Field Cycling Relaxometry Study of the Molecular Dynamics in Polymer Nanocomposites for Use as Drug Delivery Systems. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 7539-7545.	0.9	14
30	Magnetic modulation of the transport of organophilic solutes through Supported Magnetic Ionic Liquid Membranes. <i>Journal of Membrane Science</i> , 2016, 505, 36-43.	8.2	15
31	<sup>1</sup> H NMR relaxometry in the TGBA* and TGBC* phases. <i>Ferroelectrics</i> , 2016, 495, 17-27.	0.6	6
32	Magnetic Flux Density Distribution in the Air Gap of a Ferromagnetic Core With Superconducting Blocks: Three-Dimensional Analysis and Experimental NMR Results. <i>IEEE Transactions on Applied Superconductivity</i> , 2015, 25, 1-9.	1.7	7
33	NMR relaxometry evaluation of nanostructured starch-PLA blends. <i>Polymer Testing</i> , 2015, 45, 161-167.	4.8	14
34	Fe(III) salen derived Schiff base complexes as potential contrast agents. <i>Inorganica Chimica Acta</i> , 2015, 432, 258-266.	2.4	10
35	Silica and silica organically modified nanoparticles: Water dynamics in complex systems. <i>Microporous and Mesoporous Materials</i> , 2015, 217, 102-108.	4.4	10
36	<sup>1</sup> H NMR Relaxation Study of a Magnetic Ionic Liquid as a Potential Contrast Agent. <i>Journal of Physical Chemistry B</i> , 2015, 119, 11740-11747.	2.6	23

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37	The art of model fitting to experimental results. <i>European Journal of Physics</i> , 2014, 35, 015017.	0.6	51
38	Self-assembled liquid crystals by hydrogen bonding between bipyridyl and alkylbenzoic acids: solvent-free synthesis by mechanochemistry. <i>Liquid Crystals</i> , 2014, 41, 1743-1751.	2.2	44
39	FFC NMR relaxometers on education: Topologies, control techniques and electromagnetic devices. , 2014, , .		0
40	Proton and deuterium nuclear spin relaxation study of the SmA and SmC* phases of BP8Cl <sub>17</sub> : a self-consistent analysis. <i>Magnetic Resonance in Chemistry</i> , 2014, 52, 546-555.	1.9	4
41	Proton NMR relaxation study of molecular dynamics of chromonic liquid crystal Edicol Sunset Yellow. <i>Liquid Crystals</i> , 2014, 41, 1080-1089.	2.2	7
42	<sup>1</sup> H- <sup>2</sup> H Cross-Relaxation Study in a Partially Deuterated Nematic Liquid Crystal. <i>Journal of Physical Chemistry B</i> , 2014, 118, 5600-5607.	2.6	7
43	Understanding chemical reactions of CO <sub>2</sub> and its isoelectronic molecules with 1-butyl-3-methylimidazolium acetate by changing the nature of the cation: The case of CS <sub>2</sub> in 1-butyl-1-methylpyrrolidinium acetate studied by NMR spectroscopy and density functional theory calculations. <i>Journal of Chemical Physics</i> , 2014, 140, 244307.	3.0	22
44	NMR molecular dynamics study of chromonic liquid crystals Edicol Sunset Yellow doped with salts. <i>Magnetic Resonance in Chemistry</i> , 2014, 52, 540-545.	1.9	9
45	<sup>1</sup> H NMR relaxometry and X-ray study of PCL/nevirapine hybrids. <i>Polymer Testing</i> , 2013, 32, 553-566.	4.8	32
46	Molecular dynamics in a blue phase liquid crystal: a <sup>1</sup> H fast field-cycling NMR relaxometry study. <i>Soft Matter</i> , 2013, 9, 10746.	2.7	15
47	Molecular Dynamic Evaluation of starch-PLA blends nanocomposite with organoclay by proton NMR relaxometry. <i>Polymer Testing</i> , 2013, 32, 1181-1185.	4.8	20
48	<sup>1</sup> H NMR Relaxometry, Viscometry, and PFG NMR Studies of Magnetic and Nonmagnetic Ionic Liquids. <i>Journal of Physical Chemistry B</i> , 2013, 117, 11877-11884.	2.6	28
49	On the chemical reactions of carbon dioxide isoelectronic molecules CS <sub>2</sub> and OCS with 1-butyl-3-methylimidazolium acetate. <i>Chemical Communications</i> , 2013, 49, 11083.	4.1	17
50	Determination of herb authenticity by low-field NMR. <i>Food Chemistry</i> , 2013, 136, 1272-1276.	8.2	20
51	Temperature Effects on the Molecular Dynamics of Modified Nafion® Membranes Incorporating Ionic Liquids' Cations: A <sup>1</sup> H NMRD Study. <i>Fuel Cells</i> , 2013, 13, 1166-1176.	2.4	15
52	Study of the Behavior of Magnetic Ionic Liquids Supported Membranes for Selective Transport. <i>Procedia Engineering</i> , 2012, 44, 177-180.	1.2	1
53	CO <sub>2</sub> in 1-Butyl-3-methylimidazolium Acetate. 2. NMR Investigation of Chemical Reactions. <i>Journal of Physical Chemistry A</i> , 2012, 116, 4890-4901.	2.5	100
54	Dynamics of Discotic Fluoroalkylated Triphenylene Molecules Studied by Proton NMR Relaxometry. <i>Journal of Physical Chemistry B</i> , 2012, 116, 2339-2346.	2.6	13

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55	On the spontaneous carboxylation of 1-butyl-3-methylimidazolium acetate by carbon dioxide. Chemical Communications, 2012, 48, 1245-1247.	4.1	94
56	Proton NMR Relaxation Study on the Nematic-Nematic Phase Transition in A131 Liquid Crystal. Journal of Physical Chemistry B, 2012, 116, 9556-9563.	2.6	22
57	Fast Field-Cycling NMR Relaxometry Study of Chiral and Nonchiral Nematic Liquid Crystals. Journal of Physical Chemistry B, 2011, 115, 14348-14358.	2.6	21
58	Proton NMR Relaxometry Study of Nafion Membranes Modified with Ionic Liquid Cations. Journal of Physical Chemistry B, 2011, 115, 8713-8723.	2.6	37
59	Caracterização dos constituintes poliméricos da Maytenus ilicifolia por relaxação nuclear de $^1\text{H}$ por RMN no estado sólido. Polimeros, 2011, 21, 416-420.	0.7	1
60	Free-standing urethane/urea elastomer films undoped and doped with ferro-nano-particles. European Physical Journal E, 2011, 34, 8.	1.6	2
61	Detecting columnar deformations in a supermesogenic octapode by proton NMR relaxometry. European Physical Journal E, 2010, 31, 275-283.	1.6	5
62	Desktop fast-field cycling nuclear magnetic resonance relaxometer. Solid State Nuclear Magnetic Resonance, 2010, 38, 36-43.	2.3	54
63	Phase structure and molecular dynamics of liquid-crystalline side-on organosiloxane tetrapodes. Physical Review E, 2010, 81, 011702.	2.1	23
64	$^1\text{H}$ NMR Relaxometry Study of a Rod-Like Chiral Liquid Crystal in Its Isotropic, Cholesteric, TGBA*, and TGBC* Phases. Journal of Physical Chemistry B, 2010, 114, 11993-12001.	2.6	18
65	Advances in Proton NMR Relaxometry in Thermotropic Liquid Crystals. , 2009, , 129-167.		16
66	Reducing the size of Fast Field Cycling NMR spectrometers based on the use of IGBTs. , 2009, , .		5
67	Liquid crystal 8CB in random porous glass: NMR relaxometry study of molecular diffusion and director fluctuations. Physical Review E, 2007, 76, 051708.	2.1	38
68	Structure and molecular dynamics of the mesophases exhibited by an organosiloxane tetrapode with strong polar terminal groups. Physical Review E, 2007, 75, 011704.	2.1	20
69	Design of a Nuclear Magnetic Resonance Fast Field Cycling Air Cored Magnet. , 2007, , .		1
70	Molecular Dynamics Study in PU/PBDO Anisotropic Elastomers by Proton NMR Relaxometry. Molecular Crystals and Liquid Crystals, 2006, 450, 119/[319]-126/[326].	0.9	2
71	Frustrated structure of an anticlinic-like smectic-C phase. European Physical Journal E, 2006, 20, 55-61.	1.6	5
72	Deuterium nuclear-magnetic-resonance study of a chiral smectic-C* phase. Physical Review E, 2006, 74, 061704.	2.1	9

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73	NMR Relaxation Study of Molecular Dynamics in the Smectic A Phase of PAMAM Liquid Crystalline Dendrimers of Generation 1 and 3. <i>Molecular Crystals and Liquid Crystals</i> , 2006, 450, 191/[391]-201/[401].	0.9	7
74	NMR relaxation study of molecular dynamics in columnar and smectic phases of a PAMAM liquid-crystalline co-dendrimer. <i>European Physical Journal E</i> , 2005, 18, 149-158.	1.6	14
75	Peculiar Molecular Dynamics Behaviour in the Isotropic Phase of Some Liquid Crystalline Systems. <i>Molecular Crystals and Liquid Crystals</i> , 2005, 436, 17/[971]-28/[982].	0.9	2
76	Field-cycling NMR relaxometry of a liquid crystal above TN in mesoscopic confinement. <i>Physical Review E</i> , 2005, 72, 061702.	2.1	35
77	Novel pulsed switched power supply for a fast field cycling NMR spectrometer. <i>Solid State Nuclear Magnetic Resonance</i> , 2004, 25, 160-166.	2.3	31
78	Contribution of proton NMR relaxation to the investigation of molecular dynamics in columnar mesophases of discotic and polycatenar molecules. <i>Pramana - Journal of Physics</i> , 2003, 61, 205-218.	1.8	6
79	New isolated gate bipolar transistor two-quadrant chopper power supply for a fast field cycling nuclear magnetic resonance spectrometer. <i>Review of Scientific Instruments</i> , 2003, 74, 4521-4528.	1.3	17
80	Preliminary in situ X-ray diffraction measurements of UV-induced photomechanical effects in a mesogenic material. <i>Liquid Crystals</i> , 2002, 29, 479-482.	2.2	4
81	Anisotropic hydroxypropylcellulose films as alignment layers of a bistable ferroelectric device. <i>Liquid Crystals</i> , 2002, 29, 1491-1495.	2.2	6
82	Contribution of Proton NMR Relaxation to the Investigation of Molecular Dynamics and Molecular Organisation in Liquid Crystalline Phases. <i>Molecular Crystals and Liquid Crystals</i> , 2001, 362, 289-304.	0.3	9
83	Synclinaic-anticlinic phase transition in tilted organosiloxane liquid crystals. <i>Journal of Materials Chemistry</i> , 2001, 11, 2700-2708.	6.7	36
84	Molecular dynamics in tilted bilayer smectic phases: A proton nuclear magnetic resonance relaxometry study. <i>Journal of Chemical Physics</i> , 2001, 115, 10484.	3.0	34
85	Molecular order in bilayer, anticlinic and ferroelectric smectic C mesophases. <i>European Physical Journal E</i> , 2000, 2, 351.	1.6	3
86	Deuteron NMR study of molecular dynamics in a compound exhibiting a reentrant nematic phase. <i>Physical Review E</i> , 2000, 62, 3679-3686.	2.1	10
87	Ferroelectric side group liquid crystalline polysiloxanes containing a chiral sulphinate derivative. <i>Liquid Crystals</i> , 1999, 26, 1445-1454.	2.2	9
88	NMR Study of the Molecular Order in a Liquid Crystal with Peculiar Smectic Phases. <i>Molecular Crystals and Liquid Crystals</i> , 1999, 331, 89-96.	0.3	2
89	NMR Study of Molecular Dynamics in a D <sub>h</sub> Columnar Mesophase. <i>Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences</i> , 1998, 53, 823-827.	1.5	6
90	Influence of siloxane groups on the properties of some sulfinate ferroelectric liquid crystals derivatives. <i>Ferroelectrics</i> , 1998, 212, 133-141.	0.6	13

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91	Molecular Dynamics in the Columnar and Lamellar Mesophases of a Liquid Crystal of Biforked Molecules. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1996, 51, 155-166.	1.5	1
92	Molecular Dynamics in a Liquid Crystal with Reentrant Mesophases. Journal De Physique II, 1995, 5, 1707-1724.	0.9	17
93	Molecular dynamics study of the ferroelectric liquid crystal CI IPNOC by proton spin-lattice relaxation. Liquid Crystals, 1993, 14, 415-426.	2.2	9
94	Proton NMR Relaxation Study of Molecular Motions in a Liquid Crystal with a Strong Polar Terminal Group. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 1993, 48, 851-860.	1.5	18
95	NMR study of molecular dynamics in a mixture of two polar liquid crystals (CBOOA and DOBCA). Liquid Crystals, 1992, 11, 621-635.	2.2	9
96	Proton spin-lattice relaxation study of a partial bilayer smectic A phase. Liquid Crystals, 1988, 3, 937-945.	2.2	6
97	Chapter 11. NMR Relaxometry in Liquid Crystals: Molecular Organization and Molecular Dynamics Interrelation. New Developments in NMR, 0, , 255-302.	0.1	4