# Pedro Martins

## List of Publications by Citations



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|---|---|---|---|
| 121 papers | 6,034 citations | 34 h-index | 76 g-index |
| 126 ext. papers | 7,021 ext. citations | 5.8 avg, IF | 6.29 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 121 | Electroactive phases of poly(vinylidene fluoride): Determination, processing and applications. *Progress in Polymer Science*, **2014**, 39, 683-706 | 29.6 | 1743 |
| 120 | Electroactive poly(vinylidene fluoride)-based structures for advanced applications. *Nature Protocols* , **2018**, 13, 681-704 | 18.8 | 320 |
| 119 | Advances in Magnetic Nanoparticles for Biomedical Applications. *Advanced Healthcare Materials*, **2018**, 7, 1700845 | 10.1 | 277 |
| 118 | Polymer-Based Magnetoelectric Materials. *Advanced Functional Materials*, **2013**, 23, 3371-3385 | 15.6 | 244 |
| 117 | On the origin of the electroactive poly(vinylidene fluoride) β-phase nucleation by ferrite nanoparticles via surface electrostatic interactions. *CrystEngComm*, **2012**, 14, 2807 | 3.3 | 198 |
| 116 | Role of Nanoparticle Surface Charge on the Nucleation of the Electroactive β-Poly(vinylidene fluoride) Nanocomposites for Sensor and Actuator Applications. *Journal of Physical Chemistry C*, **2012**, 116, 15790-15794 | 3.8 | 176 |
| 115 | Nucleation of electroactive β-phase poly(vinilidene fluoride) with CoFe2O4 and NiFe2O4 nanofillers: a new method for the preparation of multiferroic nanocomposites. *Applied Physics A: Materials Science and Processing*, **2011**, 103, 233-237 | 2.6 | 144 |
| 114 | Dielectric and magnetic properties of ferrite/poly(vinylidene fluoride) nanocomposites. *Materials Chemistry and Physics*, **2012**, 131, 698-705 | 4.4 | 110 |
| 113 | Optimizing piezoelectric and magnetoelectric responses on CoFe2O4/P(VDF-TrFE) nanocomposites. *Journal Physics D: Applied Physics*, **2011**, 44, 495303 | 3 | 110 |
| 112 | Influence of ferrite nanoparticle type and content on the crystallization kinetics and electroactive phase nucleation of poly(vinylidene fluoride). *Langmuir*, **2011**, 27, 7241-9 | 4 | 109 |
| 111 | Effect of poling state and morphology of piezoelectric poly(vinylidene fluoride) membranes for skeletal muscle tissue engineering. *RSC Advances*, **2013**, 3, 17938 | 3.7 | 103 |
| 110 | Proving the suitability of magnetoelectric stimuli for tissue engineering applications. *Colloids and Surfaces B: Biointerfaces*, **2016**, 140, 430-436 | 6 | 99 |
| 109 | Tailored Magnetic and Magnetoelectric Responses of Polymer-Based Composites. *ACS Applied Materials & Interfaces*, **2015**, 7, 15017-22 | 9.5 | 86 |
| 108 | Polymer-based smart materials by printing technologies: Improving application and integration. *Additive Manufacturing*, **2018**, 21, 269-283 | 6.1 | 81 |
| 107 | Correlation between crystallization kinetics and electroactive polymer phase nucleation in ferrite/poly(vinylidene fluoride) magnetoelectric nanocomposites. *Journal of Physical Chemistry B*, **2012**, 116, 794-801 | 3.4 | 78 |
| 106 | Local variation of the dielectric properties of poly(vinylidene fluoride) during the α-to β-phase transformation. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2009**, 373, 177-180 | 2.3 | 75 |
| 105 | Linear anhysteretic direct magnetoelectric effect in Ni0.5Zn0.5Fe2O4/poly(vinylidene fluoride-trifluoroethylene) 0-3 nanocomposites. *Journal Physics D: Applied Physics*, **2011**, 44, 482001 | 3 | 72 |

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| 104 | Development of magnetoelectric CoFe2O4 /poly(vinylidene fluoride) microspheres. *RSC Advances*, **2015**, 5, 35852-35857 | 3.7 | 69 |
| 103 | Effect of filler dispersion and dispersion method on the piezoelectric and magnetoelectric response of CoFe2O4/P(VDF-TrFE) nanocomposites. *Applied Surface Science*, **2014**, 313, 215-219 | 6.7 | 69 |
| 102 | Optimization of the magnetoelectric response of poly(vinylidene fluoride)/epoxy/Vitrovac laminates. *ACS Applied Materials & Interfaces*, **2013**, 5, 10912-9 | 9.5 | 69 |
| 101 | Silk fibroin-magnetic hybrid composite electrospun fibers for tissue engineering applications. *Composites Part B: Engineering*, **2018**, 141, 70-75 | 10 | 68 |
| 100 | Aluminosilicate and aluminosilicate based polymer composites: Present status, applications and future trends. *Progress in Surface Science*, **2014**, 89, 239-277 | 6.6 | 62 |
| 99 | Novel Anisotropic Magnetoelectric Effect on □FeO(OH)/P(VDF-TrFE) Multiferroic Composites. *ACS Applied Materials & Interfaces*, **2015**, 7, 11224-9 | 9.5 | 60 |
| 98 | Magnetoelectric CoFe2O4/polyvinylidene fluoride electrospun nanofibres. *Nanoscale*, **2015**, 7, 8058-61 | 7.7 | 59 |
| 97 | Energy harvesting device based on a metallic glass/PVDF magnetoelectric laminated composite. *Smart Materials and Structures*, **2015**, 24, 065024 | 3.4 | 57 |
| 96 | Understanding nucleation of the electroactive □phase of poly(vinylidene fluoride) by nanostructures. *RSC Advances*, **2016**, 6, 113007-113015 | 3.7 | 57 |
| 95 | Improving Photocatalytic Performance and Recyclability by Development of Er-Doped and Er/Pr-Codoped TiO2/Poly(vinylidene difluoride)□trifluoroethylene Composite Membranes. *Journal of Physical Chemistry C*, **2014**, 118, 27944-27953 | 3.8 | 56 |
| 94 | Development of water-based printable piezoresistive sensors for large strain applications. *Composites Part B: Engineering*, **2017**, 112, 344-352 | 10 | 55 |
| 93 | Metallic Glass/PVDF Magnetoelectric Laminates for Resonant Sensors and Actuators: A Review. *Sensors*, **2017**, 17, | 3.8 | 45 |
| 92 | Nucleation of the electroactive □phase, dielectric and magnetic response of poly(vinylidene fluoride) composites with Fe2O3 nanoparticles. *Journal of Non-Crystalline Solids*, **2013**, 361, 93-99 | 3.9 | 45 |
| 91 | Determination of the magnetostrictive response of nanoparticles via magnetoelectric measurements. *Nanoscale*, **2015**, 7, 9457-61 | 7.7 | 41 |
| 90 | Interface characterization and thermal degradation of ferrite/poly(vinylidene fluoride) multiferroic nanocomposites. *Journal of Materials Science*, **2013**, 48, 2681-2689 | 4.3 | 41 |
| 89 | Cellulose-based magnetoelectric composites. *Nature Communications*, **2017**, 8, 38 | 17.4 | 39 |
| 88 | Ciprofloxacin wastewater treated by UVA photocatalysis: contribution of irradiated TiO2 and ZnO nanoparticles on the final toxicity as assessed by Vibrio fischeri. *RSC Advances*, **2016**, 6, 95494-95503 | 3.7 | 36 |
| 87 | Osteoblast, fibroblast and in vivo biological response to poly(vinylidene fluoride) based composite materials. *Journal of Materials Science: Materials in Medicine*, **2013**, 24, 395-403 | 4.5 | 34 |

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| 86 | A green solvent strategy for the development of piezoelectric poly(vinylidene fluoride-trifluoroethylene) films for sensors and actuators applications. *Materials and Design*, **2016**, 104, 183-189 | 8.1 | 33 |
| 85 | Magnetoelectric response on Terfenol-D/ P(VDF-TrFE) two-phase composites. *Composites Part B: Engineering*, **2017**, 120, 97-102 | 10 | 32 |
| 84 | Development of electrospun photocatalytic TiO2-polyamide-12 nanocomposites. *Materials Chemistry and Physics*, **2015**, 164, 91-97 | 4.4 | 32 |
| 83 | Improved magnetodielectric coefficient on polymer based composites through enhanced indirect magnetoelectric coupling. *Applied Physics Letters*, **2016**, 109, 112905 | 3.4 | 31 |
| 82 | Hydrogel-based magnetoelectric microenvironments for tissue stimulation. *Colloids and Surfaces B: Biointerfaces*, **2019**, 181, 1041-1047 | 6 | 30 |
| 81 | Poly(vinylidene fluoride-hexafluoropropylene)/bayerite composite membranes for efficient arsenic removal from water. *Materials Chemistry and Physics*, **2016**, 183, 430-438 | 4.4 | 30 |
| 80 | Electronic optimization for an energy harvesting system based on magnetoelectric Metglas/poly(vinylidene fluoride)/Metglas composites. *Smart Materials and Structures*, **2016**, 25, 085028 | 3.4 | 30 |
| 79 | Size effects on the magnetoelectric response on PVDF/Vitrovac 4040 laminate composites. *Journal of Magnetism and Magnetic Materials*, **2015**, 377, 29-33 | 2.8 | 29 |
| 78 | Magnetic cellulose nanocrystal nanocomposites for the development of green functional materials. *Carbohydrate Polymers*, **2017**, 175, 425-432 | 10.3 | 29 |
| 77 | Local probing of magnetoelectric properties of PVDF/FeO electrospun nanofibers by piezoresponse force microscopy. *Nanotechnology*, **2017**, 28, 065707 | 3.4 | 28 |
| 76 | Optimized anisotropic magnetoelectric response of Fe61.6Co16.4Si10.8B11.2/PVDF/Fe61.6Co16.4Si10.8B11.2laminates for AC/DC magnetic field sensing. *Smart Materials and Structures*, **2016**, 25, 055050 | 3.4 | 27 |
| 75 | All-printed multilayer materials with improved magnetoelectric response. *Journal of Materials Chemistry C*, **2019**, 7, 5394-5400 | 7.1 | 25 |
| 74 | Polymer-based actuators: back to the future. *Physical Chemistry Chemical Physics*, **2020**, 22, 15163-15182 | 3.6 | 25 |
| 73 | Characterization of Metglas/poly(vinylidene fluoride)/Metglas magnetoelectric laminates for AC/DC magnetic sensor applications. *Materials and Design*, **2016**, 92, 906-910 | 8.1 | 25 |
| 72 | Hydrothermal assisted synthesis of iron oxide-based magnetic silica spheres and their performance in magnetophoretic water purification. *Materials Chemistry and Physics*, **2012**, 135, 510-517 | 4.4 | 25 |
| 71 | . *IEEE Transactions on Industrial Electronics*, **2017**, 64, 4928-4934 | 8.9 | 24 |
| 70 | Development of a contactless DC current sensor with high linearity and sensitivity based on the magnetoelectric effect. *Smart Materials and Structures*, **2018**, 27, 065012 | 3.4 | 24 |
| 69 | Low-field giant magneto-ionic response in polymer-based nanocomposites. *Nanoscale*, **2018**, 10, 15747-15754 | 7.7 | 24 |

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| 68 | Magnetoelectrics: Three Centuries of Research Heading towards the 4.0 Industrial Revolution. *Materials*, **2020**, 13, | 3.5 | 23 |
| 67 | Influence of Solvent Evaporation Rate in the Preparation of Carbon-Coated Lithium Iron Phosphate Cathode Films on Battery Performance. *Energy Technology*, **2016**, 4, 573-582 | 3.5 | 23 |
| 66 | Synthesis, physical and magnetic properties of BaFe12O19/P(VDF-TrFE) multifunctional composites. *European Polymer Journal*, **2015**, 69, 224-231 | 5.2 | 21 |
| 65 | Large linear anhysteretic magnetoelectric voltage coefficients in CoFe2O4/polyvinylidene fluoride 0□3 nanocomposites. *Journal of Nanoparticle Research*, **2013**, 15, 1 | 2.3 | 21 |
| 64 | Spray-printed magnetoelectric multifunctional composites. *Composites Part B: Engineering*, **2020**, 187, 107829 | 10 | 21 |
| 63 | Processing and size range separation of pristine and magnetic poly(l-lactic acid) based microspheres for biomedical applications. *Journal of Colloid and Interface Science*, **2016**, 476, 79-86 | 9.3 | 20 |
| 62 | Synthesis and size dependent magnetostrictive response of ferrite nanoparticles and their application in magnetoelectric polymer-based multiferroic sensors. *Journal of Materials Chemistry C* , **2016**, 4, 10701-10706 | 7.1 | 19 |
| 61 | Magnetically Controlled Drug Release System through Magnetomechanical Actuation. *Advanced Healthcare Materials*, **2016**, 5, 3027-3034 | 10.1 | 19 |
| 60 | Gd2O3:Eu Nanoparticle-Based Poly(vinylidene fluoride) Composites for Indirect X-ray Detection. *Journal of Electronic Materials*, **2015**, 44, 129-135 | 1.9 | 18 |
| 59 | Synthesis of highly magnetostrictive nanostructures and their application in a polymer-based magnetoelectric sensing device. *European Polymer Journal*, **2016**, 84, 685-692 | 5.2 | 18 |
| 58 | High-temperature polymer based magnetoelectric nanocomposites. *European Polymer Journal*, **2015**, 64, 224-228 | 5.2 | 17 |
| 57 | Evaluation and optimization of the magnetoelectric response of CoFe2O4/poly(vinylidene fluoride) composite spheres by computer simulation. *Composites Science and Technology*, **2017**, 146, 119-130 | 8.6 | 16 |
| 56 | Polymer-based magnetoelectric materials: To be or not to be. *Applied Materials Today*, **2019**, 15, 558-561 | 6.6 | 16 |
| 55 | Gd2O3:Eu3+/PPO/POPOP/PS composites for digital imaging radiation detectors. *Applied Physics A: Materials Science and Processing*, **2015**, 121, 581-587 | 2.6 | 16 |
| 54 | Wide-Range Magnetoelectric Response on Hybrid Polymer Composites Based on Filler Type and Content. *Polymers*, **2017**, 9, | 4.5 | 16 |
| 53 | Novel hybrid multifunctional magnetoelectric porous composite films. *Journal of Magnetism and Magnetic Materials*, **2015**, 396, 237-241 | 2.8 | 15 |
| 52 | Tailored Biodegradable and Electroactive Poly(Hydroxybutyrate-Co-Hydroxyvalerate) Based Morphologies for Tissue Engineering Applications. *International Journal of Molecular Sciences*, **2018**, 19, | 6.3 | 15 |
| 51 | Transparent Magnetoelectric Materials for Advanced Invisible Electronic Applications. *Advanced Electronic Materials*, **2019**, 5, 1900280 | 6.4 | 13 |

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|---|---|---|---|
| 50 | Reconfigurable 3D-printable magnets with improved maximum energy product. *Journal of Materials Chemistry C*, **2020**, 8, 952-958 | 7.1 | 13 |
| 49 | Improving Magnetoelectric Contactless Sensing and Actuation through Anisotropic Nanostructures. *Journal of Physical Chemistry C*, **2018**, 122, 19189-19196 | 3.8 | 12 |
| 48 | Reactive microencapsulation of carbon allotropes in polyamide shell-core structures and their transformation in hybrid composites with tailored electrical properties. *EXPRESS Polymer Letters*, **2016**, 10, 160-175 | 3.4 | 12 |
| 47 | Increasing X-ray to visible transduction performance of Gd2O3:Eu3+PVDF composites by PPO/POPOP addition. *Composites Part B: Engineering*, **2016**, 91, 610-614 | 10 | 10 |
| 46 | Synthesis and characterization of novel piezoelectric nitrile copolyimide films for high temperature sensor applications. *Smart Materials and Structures*, **2014**, 23, 105015 | 3.4 | 10 |
| 45 | Concentrated solar energy used for sintering magnesium titanates for electronic applications. *Applied Surface Science*, **2018**, 438, 59-65 | 6.7 | 9 |
| 44 | Nanoparticle dispersion and electroactive phase content in polyvinylidene fluoride/Ni0.5Zn0.5Fe2O4 nanocomposites for magnetoelectric applications. *Journal of Nanoscience and Nanotechnology*, **2012**, 12, 6845-9 | 1.3 | 9 |
| 43 | Magnetoelectric Polymer-Based Nanocomposites with Magnetically Controlled Antimicrobial Activity. *ACS Applied Bio Materials*, **2021**, 4, 559-570 | 4.1 | 9 |
| 42 | Magnetic materials: a journey from finding north to an exciting printed future. *Materials Horizons*, **2021**, 8, 2654-2684 | 14.4 | 9 |
| 41 | Structural, mechanical and piezoelectric properties of polycrystalline AlN films sputtered on titanium bottom electrodes. *Applied Surface Science*, **2015**, 354, 267-278 | 6.7 | 8 |
| 40 | Preparation of Magnetoelectric Composites by Nucleation of the Electroactive Phase of Poly(vinylidene fluoride) by NiZnFe2O4 Nanoparticles. *Sensor Letters*, **2013**, 11, 110-114 | 0.9 | 8 |
| 39 | Magnetic Nanoparticles for Biomedical Applications: From the Soul of the Earth to the Deep History of Ourselves.. *ACS Applied Bio Materials*, **2021**, 4, 5839-5870 | 4.1 | 8 |
| 38 | Magnetic Proximity Sensor Based on Magnetoelectric Composites and Printed Coils. *Materials*, **2020**, 13, | 3.5 | 8 |
| 37 | . *IEEE Transactions on Magnetics*, **2021**, 57, 1-57 | 2 | 8 |
| 36 | Dielectric relaxation and ferromagnetic resonance in magnetoelectric (Polyvinylidene-fluoride)/ferrite composites. *Journal of Polymer Research*, **2015**, 22, 1 | 2.7 | 7 |
| 35 | Theoretical design of high-performance polymer-based magnetoelectric of fibrilar structures. *Composites Science and Technology*, **2018**, 155, 126-136 | 8.6 | 7 |
| 34 | Magnetoelectric coupling in nanoscale 0-1 connectivity. *Nanoscale*, **2018**, 10, 17370-17377 | 7.7 | 6 |
| 33 | Induced Magnetoelectric Effect Driven by Magnetization in BaFe12O19- P(VDF-TrFE) Composites. *IEEE Transactions on Magnetics*, **2015**, 51, 1-4 | 2 | 6 |

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| 32 | Overview on thermoactive materials, simulations and applications. *Journal of Materials Science*, **2020**, 55, 925-946 | 4.3 | 6 |
| 31 | Optimized Magnetodielectric Coupling on High-Temperature Polymer-Based Nanocomposites. *Journal of Physical Chemistry C*, **2018**, 122, 1821-1827 | 3.8 | 5 |
| 30 | Magnetoelectric Composites for Bionics Applications **2017**, 171-195 | | 4 |
| 29 | Poly(vinylidene fluoride)-Based Magnetoelectric Polymer Nanocomposite Films **2017**, 87-113 | | 4 |
| 28 | Effect of polymer strengtheners on the local environment of biocompatible glass as probed by fluorescence. *Journal of Fluorescence*, **2008**, 18, 297-303 | 2.4 | 4 |
| 27 | Printed multifunctional magnetically activated energy harvester with sensing capabilities. *Nano Energy*, **2022**, 94, 106885 | 17.1 | 4 |
| 26 | A new approach for preparation of metal-containing polyamide/carbon textile laminate composites with tunable electrical conductivity. *Journal of Materials Science*, **2018**, 53, 11444-11459 | 4.3 | 4 |
| 25 | Energy Harvesting **2017**, 197-224 | | 3 |
| 24 | Room Temperature Magnetic Response of Sputter Deposited TbDyFe Films as a Function of the Deposition Parameters. *Journal of Nano Research*, **2012**, 18-19, 235-239 | 1 | 3 |
| 23 | Electroactive poly(vinylidene fluoride) electrospun fiber mats coated with polyaniline and polypyrrole for tissue regeneration applications. *Reactive and Functional Polymers*, **2022**, 170, 105118 | 4.6 | 3 |
| 22 | Electroactive poly(vinylidene fluoride)-based materials: recent progress, challenges, and opportunities **2020**, 1-43 | | 2 |
| 21 | Energy Harvesting **2017**, 225-253 | | 2 |
| 20 | Degradation studies of transparent conductive electrodes on electroactive poly(vinylidene fluoride) for uric acid measurements. *Science and Technology of Advanced Materials*, **2010**, 11, 045006 | 7.1 | 2 |
| 19 | Biological microdevice with fluidic acoustic streaming for measuring uric acid in human saliva. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 5879-82 | 0.9 | 2 |
| 18 | Temperature and frequency dependence of the dielectric and piezoelectric response of P(VDF□rFE)/CoFe2O4 magnetoelectric composites. *Lithuanian Journal of Physics*, **2017**, 57, | 1.1 | 2 |
| 17 | Magnetic materials for magnetoelectric coupling: An unexpected journey. *Handbook of Magnetic Materials*, **2020**, 29, 57-110 | 1.3 | 2 |
| 16 | Theoretical optimization of magnetoelectric multilayer laminates. *Composites Science and Technology*, **2021**, 204, 108642 | 8.6 | 2 |
| 15 | Design of Magnetostrictive Nanoparticles for Magnetoelectric Composites **2017**, 125-151 | | 1 |

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| 14 | Scanning electron microscopy analysis of sol-gel derived biocompatible glass. *Journal of Physics: Conference Series*, **2008**, 126, 012076 | 0.3 | 1 |
| 13 | Additive manufacturing of multifunctional materials **2021**, 25-42 | | 1 |
| 12 | A Facile Nanoimpregnation Method for Preparing Paper-Based Sensors and Actuators. *Advanced Materials Technologies*, **2021**, 6, 2100476 | 6.8 | 1 |
| 11 | Magnetic field into multifunctional materials: Magnetorheological, magnetostrictive, and magnetocaloric **2021**, 391-405 | | 0 |
| 10 | Greener Solvent-Based Processing of Magnetoelectric Nanocomposites. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 4122-4132 | 8.3 | 0 |
| 9 | Carrageenan based printable magnetic nanocomposites for actuator applications. *Composites Science and Technology*, **2022**, 109485 | 8.6 | 0 |
| 8 | Materials Selection, Processing, and Characterization Technologies **2017**, 13-43 | | |
| 7 | Polymer-Based Magnetoelectric Composites: Polymer as a Binder **2017**, 65-85 | | |
| 6 | Types of Polymer-Based Magnetoelectric Materials **2017**, 45-63 | | |
| 5 | Low-Dimensional Polymer-Based Magnetoelectric Structures **2017**, 115-123 | | |
| 4 | Applications of Polymer-Based Magnetoelectric Materials **2017**, 153-170 | | |
| 3 | Nucleation of the electroactive phase of poly(vinylidene fluoride) by ferrite nanoparticles: surface versus size effects. *Materials Research Society Symposia Proceedings*, **2011**, 1312, 1 | | |
| 2 | Bulk Magnetoelectric Composites **2022**, 196-206 | | |
| 1 | Piezoelectric Polymers and Polymer Composites for Sensors and Actuators **2018**, | | |