

Rodrigo Ferrão de Paiva Martins  
Full Professor, Researcher  
DCM - Departamento de Ciência dos Materiais  
CENIMAT-i3N - Centro de Investigação de Materiais (Lab. Associado I3N)  
UNINOVA-Instituto de Desenvolvimento de Novas Tecnologias  
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## Qualifications

Energy conversion and Semiconductors, Doctorate, Universidade NOVA de Lisboa  
Award Date: 4 May 1982

Electronics Engineering, Telecommunications and applied Electronics, Bachelor  
Award Date: 6 May 1975

Semiconductor Materials, Master, Dundee University, Scotland  
2001 → 2002 Teste, Teste

## Employment

### Full Professor

DCM - Departamento de Ciência dos Materiais  
Universidade NOVA de Lisboa  
Portugal  
11 Aug 1973 → present

### Researcher

CENIMAT-i3N - Centro de Investigação de Materiais (Lab. Associado I3N)  
Universidade NOVA de Lisboa  
Caparica, Portugal  
11 Aug 1973 → present

### Researcher

UNINOVA-Instituto de Desenvolvimento de Novas Tecnologias  
Universidade NOVA de Lisboa  
11 Aug 1973 → present

### President

IUMRS - International Union of Materials Research Society  
Singapore  
1 Jan 2021 → 1 Jan 2023

### President

EurASc - European Academy of Sciences  
Belgium  
1 Jan 2018 → 1 Jan 2022

### Founder and 1st Director, CENIMAT

1 Jan 1991 → 1 Jan 1995

### Founder and Director, CEMOP

1 Jan 1989 → present

## Research interests

Main scientific interests in the area of Optoelectronic Materials and Process Microelectronics; Amorphous semiconductor technology and its applications; Nanotechnologies and Nanomaterials.

## Research output

1. **Recent Progress in Solution-Based Metal Oxide Resistive Switching Devices**  
Carlos, E., Branquinho, R., Martins, R., Kiazadeh, A. & Fortunato, E., 18 Feb 2021, In : *Advanced Materials*. 33, 7, 2004328.
2. **Ta<sub>2</sub>O<sub>5</sub>/SiO<sub>2</sub> Multicomponent Dielectrics for Amorphous Oxide TFTs**  
Martins, J., Kiazadeh, A., Pinto, J. V., Rovisco, A., Gonçalves, T., Deuermeier, J., Alves, E., Martins, R., Fortunato, E. & Barquinha, P., 29 Dec 2020, In : *Electronic Materials*. 2, 1, p. 1-16
3. **Design of wave-optical structured substrates for ultra-thin perovskite solar cells**  
Haque, S., Alexandre, M., Mendes, M. J., Águas, H., Fortunato, E. & Martins, R., Sep 2020, In : *Applied Materials Today*. 20, 100720.
4. **Cellulose-Based Solid Electrolyte Membranes Through Microwave Assisted Regeneration and Application in Electrochromic Displays**  
Duarte, P., Pereira, S., Cunha, I., Pimentel, A., Dionísio, M., Fortunato, E., Martins, R. & Pereira, L., 14 Aug 2020, In : *Frontiers in Materials*. 7, 269.
5. **Solution Combustion Synthesis: Towards a Sustainable Approach for Metal Oxides**  
Carlos, E., Martins, R., Fortunato, E. & Branquinho, R., 21 Apr 2020, In : *Chemistry - A European Journal*.
6. **Ionically Modified Cellulose Nanocrystal Self-Assembled Films with a Mesoporous Twisted Superstructure: Polarizability and Application in Ion-Gated Transistors**  
Grey, P., Fernandes, S. N., Gaspar, D., Deuermeier, J., Martins, R., Fortunato, E., Godinho, M. H. & Pereira, L., 25 Feb 2020, In : *ACS Applied Electronic Materials*. 2, 2, p. 426-436
7. **2D Resistive Switching Based on Amorphous Zinc-Tin Oxide Schottky Diodes**  
Casa Branca, N., Deuermeier, J., Martins, J., Carlos, E., Pereira, M., Martins, R., Fortunato, E. & Kiazadeh, A., 1 Feb 2020, In : *Advanced Electronic Materials*. 6, 2, 1900958.
8. **Photonic-structured TCO front contacts yielding optical and electrically enhanced thin-film solar cells**  
Sanchez-Sobrado, O., Mendes, M. J., Mateus, T., Costa, J., Nunes, D., Águas, H., Fortunato, E. & Martins, R., 15 Jan 2020, In : *Solar Energy*. 196, p. 92-98 7 p.
9. **Control of eu oxidation state in Y<sub>2</sub>O<sub>3</sub>-xSx:Eu thin-film phosphors prepared by atomic layer deposition: A structural and photoluminescence study**  
Rosa, J., Deuermeier, J., Soininen, P. J., Bosund, M., Zhu, Z., Fortunato, E., Martins, R., Sugiyama, M. & Merdes, S., 1 Jan 2020, In : *Materials*. 13, 1, 93.
10. **Touch-Interactive Flexible Sustainable Energy Harvester and Self-Powered Smart Card**  
Ferreira, G., Goswami, S., Nandy, S., Pereira, L., Martins, R. & Fortunato, E., 1 Jan 2020, In : *Advanced Functional Materials*. 30, 5, 1908994.
11. **Paper-Based SERS Platform for One-Step Screening of Tetracycline in Milk**  
Marques, A., Veigas, B., Araújo, A., Pagará, B., Baptista, P. V., Águas, H., Martins, R. & Fortunato, E., 1 Dec 2019, In : *Scientific Reports*. 9, 1, 17922.
12. **Prediction of sunlight-driven CO<sub>2</sub> conversion: Producing methane from photovoltaics, and full system design for single-house application**  
Vieira, F., Sarmiento, B., Reis-Machado, A. S., Facão, J., Carvalho, M. J., Mendes, M. J., Fortunato, E. & Martins, R., 1 Dec 2019, In : *Materials Today Energy*. 14, 100333.
13. **Design and simple assembly of gold nanostar bioconjugates for surface-enhanced raman spectroscopy immunoassays**  
Oliveira, M. J., de Almeida, M. P., Nunes, D., Fortunato, E., Martins, R., Pereira, E., Byrne, H. J., Águas, H. & Franco, R., 1 Nov 2019, In : *Nanomaterials*. 9, 11, 1561.
14. **Editorial for the special issue "characterization of nanomaterials: Selected papers from 6th dresden nanoanalysis symposium"**  
Zschech, E., Sinclair, R., Martins, R., Sebastiani, M. & Sartori, S., 1 Nov 2019, In : *Nanomaterials*. 9, 11, 1527.
15. **Hybrid (Ag)ZnO/Cs/PMMA nanocomposite thin films**  
Viorica, G. P., Musat, V., Pimentel, A., Calmeiro, T. R., Carlos, E., Baroiu, L., Martins, R. & Fortunato, E., 30 Sep 2019, In : *Journal Of Alloys And Compounds*. 803, p. 922-933 12 p.
16. **Mapping the space charge carrier dynamics in plasmon-based perovskite solar cells**  
Panigrahi, S., Jana, S., Calmeiro, T., Nunes, D., Deuermeier, J., Martins, R. & Fortunato, E., 14 Sep 2019, In : *Journal of Materials Chemistry A*. 7, 34, p. 19811-19819 9 p.

17. **Biowaste-derived carbon black applied to polyaniline-based high-performance supercapacitor microelectrodes: Sustainable materials for renewable energy applications**  
Goswami, S., Dillip, G. R., Nandy, S., Banerjee, A. N., Pimentel, A., Joo, S. W., Martins, R. & Fortunato, E., 1 Sep 2019, In : *Electrochimica Acta*. 316, p. 202-218 17 p.
18. **Sustainable fully printed UV sensors on cork using zinc oxide/ethylcellulose inks**  
Figueira, J., Gaspar, C., Carvalho, J. T., Loureiro, J., Fortunato, E., Martins, R. & Pereira, L., 1 Sep 2019, In : *Micromachines*. 10, 9, 601.
19. **Tailoring IGZO composition for enhanced fully solution-based thin film transistors**  
Moreira, M., Carlos, E., Dias, C., Deuermeier, J., Pereira, M., Barquinha, P., Branquinho, R., Martins, R. & Fortunato, E., 1 Sep 2019, In : *Nanomaterials*. 9, 9, 1273.
20. **Colloidal-structured metallic micro-grids: High performance transparent electrodes in the red and infrared range**  
Torrì, G., Luis, J. S., Sanchez-Sobrado, O., Raciti, R., Mendes, M. J., Águas, H., Fortunato, E., Martins, R. & Terrasi, A., 1 Aug 2019, In : *Solar Energy Materials and Solar Cells*. 197, p. 7-12 6 p.
21. **Towards Oxide Electronics: a Roadmap**  
Coll, M., Fontcuberta, J., Althammer, M., Bibes, M., Boschker, H., Calleja, A., Cheng, G., Cuoco, M., Dittmann, R., Dkhil, B., El Baggari, I., Fanciulli, M., Fina, I., Fortunato, E., Frontera, C., Fujita, S., Garcia, V. J., Goennenwein, S. T. B., Granqvist, C. G., Grollier, J. & 36 others, Gross, R., Hagfeldt, A., Herranz, G., Hono, K., Houwman, E. P., Huijben, M., Kalaboukhov, A. S., Keeble, D. J., Koster, G., Kourkoutis, L. F., Levy, J. M., Lira-Cantú, M., MacManus-Driscoll, J. L., Mannhart, J. D., Martins, R., Menzel, S., Mikolajick, T., Napari, M., Nguyen, M. D., Niklasson, G. A., Paillard, C., Panigrahi, S., Rijnders, G. J. H. M., Sánchez, F., Sanchis, P., Sanna, S., Schlom, D. G., Schroeder, U. P., Shen, K. M., Siemon, A., Spreitzer, M., Sukegawa, H., Tamayo, R., van den Brink, J., Pryds, N. H. & Granozio, F. M., 15 Jul 2019, In : *Applied Surface Science*. 482, SI, p. 1-93 93 p.
22. **Growth mechanism of seed-layer free ZnSnO<sub>3</sub> nanowires: effect of physical parameters**  
Rovisco, A., Branquinho, R., Martins, J., Fortunato, E., Martins, R. & Barquinha, P., 1 Jul 2019, In : *Nanomaterials*. 9, 7, 1002.
23. **All-Thin-Film Perovskite/C-Si Four-Terminal Tandems: Interlayer and Intermediate Contacts Optimization**  
Chapa, M., Alexandre, M. F., Mendes, M. J., Águas, H., Fortunato, E. & Martins, R., 24 Jun 2019, In : *ACS Applied Energy Materials*. 2, 6, p. 3979-3985 7 p.
24. **Human-motion interactive energy harvester based on polyaniline functionalized textile fibers following metal/polymer mechano-responsive charge transfer mechanism**  
Goswami, S., Santos, A. D., Nandy, S., Igreja, R., Barquinha, P., Martins, R. & Fortunato, E., 1 Jun 2019, In : *Nano Energy*. 60, p. 794-801 8 p.
25. **Field-Effect Transistors on Photonic Cellulose Nanocrystal Solid Electrolyte for Circular Polarized Light Sensing**  
Grey, P., Fernandes, S. N., Gaspar, D., Fortunato, E., Martins, R., Godinho, M. H. & Pereira, L., 23 May 2019, In : *Advanced Functional Materials*. 29, 21(SI), 1805279.
26. **Back Cover: Field-Effect Transistors: Field-Effect Transistors on Photonic Cellulose Nanocrystal Solid Electrolyte for Circular Polarized Light Sensing (Adv. Funct. Mater. 21/2019)**  
Grey, P., Fernandes, S. N., Gaspar, D., Fortunato, E., Martins, R., Godinho, M. H. & Pereira, L., 1 May 2019, In : *Advanced Functional Materials*. 29, 21, p. 1970145.
27. **Photonic-structured TiO<sub>2</sub> for high-efficiency, flexible and stable Perovskite solar cells**  
Haque, S., Mendes, M. J., Sanchez-Sobrado, O., Águas, H., Fortunato, E. & Martins, R., 1 May 2019, In : *Nano Energy*. 59, p. 91-101 11 p.
28. **Optimum Luminescent Down-Shifting Properties for High Efficiency and Stable Perovskite Solar Cells**  
Alexandre, M., Chapa, M., Haque, S., Mendes, M. J., Águas, H., Fortunato, E. & Martins, R., 22 Apr 2019, In : *ACS Applied Energy Materials*. 2, 4, p. 2930-2938 9 p.
29. **Ultrafast Low-Temperature Crystallization of Solar Cell Graded Formamidinium-Cesium Mixed-Cation Lead Mixed-Halide Perovskites Using a Reproducible Microwave-Based Process**  
Brites, M. J., Barreiros, M. A., Corregidor, V., Alves, L. C., Pinto, J. V., Mendes, M. J., Fortunato, E., Martins, R. & Mascarenhas, J., 25 Mar 2019, In : *ACS Applied Energy Materials*. 2, 3, p. 1844-1853 10 p.
30. **Metal oxide nanostructures for sensor applications**  
Nunes, D., Pimentel, A., Gonçalves, A., Pereira, S., Branquinho, R., Barquinha, P., Fortunato, E. & Martins, R., 11 Mar 2019, In : *Semiconductor Science And Technology*. 34, 4, 043001.
31. **Role of structure and composition on the performances of P-type tin oxide thin-film transistors processed at low-temperatures**  
Barros, R., Saji, K. J., Waerenborgh, J. C., Barquinha, P., Pereira, L., Carlos, E., Martins, R. & Fortunato, E., 1 Mar 2019, In : *Nanomaterials*. 9, 3, 320.
32. **Sol-gel processed p-type CuAlO<sub>2</sub> semiconductor thin films and the integration in transistors**  
Wang, C., Zhu, H., Meng, Y., Nie, S., Zhao, Y., Shin, B., Fortunato, E., Martins, R., Shan, F. & Liu, G., 1 Mar 2019, In : *Ieee Transactions On Electron Devices*. 66, 3, p. 1458-1463 6 p., 8630855.

33. **E-Skin Bimodal Sensors for Robotics and Prosthesis Using PDMS Molds Engraved by Laser**  
Dos Santos, A., Pinela, N., Alves, P., Santos, R., Farinha, R., Fortunato, E., Martins, R., Águas, H. & Igreja, R., 21 Feb 2019, In : *Sensors* (Basel, Switzerland). 19, 4, p. 1-15 899.
34. **Oxidation and Strain in Free-standing Silicon Nanocrystals**  
Falcão, B. P., Leitão, J. P., Soares, M. R., Ricardo, L., Águas, H., Martins, R. & Pereira, R. N., 21 Feb 2019, In : *Physical Review Applied*. 11, 2, 024054.
35. **Multi-Level Cell Properties of a Bilayer Cu<sub>2</sub>O/Al<sub>2</sub>O<sub>3</sub> Resistive Switching Device**  
Deuermeier, J., Kiazadeh, A., Klein, A., Martins, R. & Fortunato, E., 19 Feb 2019, In : *Nanomaterials*. 9, 2, 289.
36. **Tailoring Upconversion and Morphology of Yb/Eu Doped Y<sub>2</sub>O<sub>3</sub> Nanostructures by Acid Composition Mediation**  
Nunes, D., Pimentel, A., Matias, M., Freire, T., Araujo, A., Silva, F., Gaspar, P., Garcia, S., Carvalho, P. A., Fortunato, E. & Martins, R., 6 Feb 2019, In : *Nanomaterials*. 9, 2, 234.
37. **Fully printed zinc oxide electrolyte-gated transistors on paper**  
Carvalho, J. T., Dubceac, V., Grey, P., Cunha, I., Fortunato, E., Martins, R., Clausner, A., Zschech, E. & Pereira, L., 1 Feb 2019, In : *Nanomaterials*. 9, 2, 169.
38. **Molecularly-imprinted chloramphenicol sensor with laser-induced graphene electrodes**  
Cardoso, A. R., Marques, A. C., Santos, L., Carvalho, A. F., Costa, F. M., Martins, R., Sales, M. G. F. & Fortunato, E., 15 Jan 2019, In : *Biosensors and Bioelectronics*. 124-125, p. 167-175 9 p.
39. **Label-Free Nanosensing Platform for Breast Cancer Exosome Profiling**  
Ferreira, N., Marques, A., Águas, H., Bandarenka, H., Martins, R., Bodo, C., Costa-Silva, B. & Fortunato, E., 1 Jan 2019, In : *ACS Sensors*.
40. **Oxide TFT Rectifiers on Flexible Substrates Operating at NFC Frequency Range**  
Tiwari, B., Bahubalindrani, P. G., Santa, A., Martins, J., Mittal, P., Goes, J., Martins, R., Fortunato, E. & Barquinha, P., 1 Jan 2019, In : *IEEE Journal of the Electron Devices Society*. 7, p. 329-334 6 p., 8636912.
41. **Wave-optical front structures on silicon and perovskite thin-film solar cells**  
Mendes, M. J., Sanchez-Sobrado, O., Haque, S., Mateus, T., Águas, H., Fortunato, E. & Martins, R., 1 Jan 2019, *Solar Cells and Light Management: Materials, Strategies and Sustainability*. Elsevier, p. 315-354 40 p.
42. **Biofilm development and computational screening for new putative inhibitors of a homolog of the regulatory protein BrpA in *Streptococcus dysgalactiae* subsp. *dysgalactiae***  
Alves-Barroco, C., Roma-Rodrigues, C., Balasubramanian, N., Guimarães, M. A., Ferreira-Carvalho, B. T., Muthukumar, J., Nunes, D., Fortunato, E., Martins, R., Santos-Silva, T., Figueiredo, A. M. S., Fernandes, A. R. & Santos-Sanches, I., 2019, In : *International Journal Of Medical Microbiology*. 309, 3-4
43. **Cellulose based functional materials in electrical and electrochemical flexible devices**  
Cunha, I., Gaspar, D., Grey, P., Carvalho, J. T., Fortunato, E., Martins, R. & Pereira, L., 2019, *International Conference on Nanotechnology for Renewable Materials 2019*. TAPPI Press, Vol. 1. p. 327-340 14 p.
44. **Paper-based nanoplatfoms for multifunctional applications**  
Matias, M. L., Nunes, D., Pimentel, A., Ferreira, S. H., Borda D'Água, R., Duarte, M. P., Fortunato, E. & Martins, R., 2019, In : *Journal of Nanomaterials*. 2019, 6501923.
45. **Laser-Induced Graphene Strain Sensors Produced by Ultraviolet Irradiation of Polyimide**  
Carvalho, A. F., Fernandes, A. J. S., Leitão, C., Deuermeier, J., Marques, A. C., Martins, R., Fortunato, E. & Costa, F. M., 27 Dec 2018, In : *Advanced Functional Materials*. 28, 52, 1805271.
46. **Laser-induced electrodes towards low-cost flexible UV ZnO sensors**  
Samouco, A., Marques, A. C., Pimentel, A., Martins, R. & Fortunato, E., 1 Dec 2018, In : *Flexible and Printed Electronics*. 3, 4, 044002.
47. **Multifunctional microfluidic chip for optical nanoprobe based RNA detection - Application to Chronic Myeloid Leukemia**  
Alves, P. U., Vinhas, R., Fernandes, A. R., Birol, S. Z., Trabzon, L., Bernacka-Wojcik, I., Igreja, R., Lopes, P., Baptista, P. V., Águas, H., Fortunato, E. & Martins, R., 1 Dec 2018, In : *Scientific Reports*. 8, 1, 381.
48. **Planar Dual-Gate Paper/Oxide Field Effect Transistors as Universal Logic Gates**  
Gaspar, D., Martins, J., Bahubalindrani, P., Pereira, L., Fortunato, E. & Martins, R., 1 Dec 2018, In : *Advanced Electronic Materials*. 4, 12, 1800423.
49. **High performance electronic devices based on nanofibers: via a crosslinking welding process**  
Cui, Y., Meng, Y., Wang, Z., Wang, C., Liu, G., Martins, R., Fortunato, E. & Shan, F., 7 Nov 2018, In : *Nanoscale*. 10, 41, p. 19427-19434 8 p.
50. **Correction to: Nontoxic, Eco-friendly Fully Water-Induced Ternary Zr-Gd-O Dielectric for High-Performance Transistors and Unipolar Inverters (Advanced Electronic Materials, (2018), 4, 5, (1800100), 10.1002/aelm.201800100)**  
Zhu, L., He, G., Li, W., Yang, B., Fortunato, E. & Martins, R., 1 Nov 2018, In : *Advanced Electronic Materials*. 4, 11, 1800507.

51. **Ultra-fast plasmonic back reflectors production for light trapping in thin Si solar cells**  
Araújo, A., Mendes, M. J., Mateus, T., Costa, J., Nunes, D., Fortunato, E., Águas, H. & Martins, R., 1 Nov 2018, In : Solar Energy. 174, p. 786-792 7 p.
52. **Enhanced UV Flexible Photodetectors and Photocatalysts Based on TiO<sub>2</sub> Nanoplateforms**  
Nunes, D., Pimentel, A., Araújo, A., Calmeiro, T. R., Panigrahi, S., Pinto, J. V., Barquinha, P., Gama, M., Fortunato, E. & Martins, R., 1 Oct 2018, In : Topics in Catalysis. 61, 15-17, p. 1591-1606 16 p.
53. **Boosting highly transparent and conducting indium zinc oxide thin films through solution combustion synthesis: Influence of rapid thermal annealing**  
Ullah, S., Branquinho, R., Santa, A., De Matteis, F., Martins, R., Davoli, I., Gonçalves, G. & Fortunato, E., 7 Sep 2018, In : Semiconductor Science And Technology. 33, 10, 105004.
54. **Papertronics: Multigate paper transistor for multifunction applications**  
Martins, R., Gaspar, D., Mendes, M. J., Pereira, L., Martins, J., Bahubalindrani, P., Barquinha, P. & Fortunato, E., 1 Sep 2018, In : Applied Materials Today. 12, p. 402-414 13 p.
55. **Piezoresistive E-Skin Sensors Produced with Laser Engraved Molds**  
dos Santos, A., Pinela, N., Alves, P., Santos, R., Fortunato, E., Martins, R., Águas, H. & Igreja, R., 1 Sep 2018, In : Advanced Electronic Materials. 4, 9, 1800182.
56. **Visualization of nanocrystalline CuO in the grain boundaries of Cu<sub>2</sub>O thin films and effect on band bending and film resistivity**  
Deuermeier, J., Liu, H., Rapenne, L., Calmeiro, T., Renou, G., Martins, R., Muñoz-Rojas, D. & Fortunato, E., 1 Sep 2018, In : APL Materials. 6, 9, 096103.
57. **Paper electronics: a sustainable multifunctional platform**  
Fortunato, E., Gaspar, D., Cunha, I., Mendes, M., Vicente, A., Aguas, H., Marques, A. C., Pimentel, A., Nunes, D., Pereira, L. & Martins, R., 20 Aug 2018, *2018 76th Device Research Conference, DRC 2018*. Institute of Electrical and Electronics Engineers Inc., 8442238. (IEEE Device Research Conference Proceedings; vol. 2018-June).
58. **Seed-Layer Free Zinc Tin Oxide Tailored Nanostructures for Nanoelectronic Applications: Effect of Chemical Parameters**  
Rovisco, A., Branquinho, R., Martins, J., Oliveira, M. J., Nunes, D., Fortunato, E., Martins, R. & Barquinha, P., Aug 2018, In : ACS APPLIED NANO MATERIALS. 1, 8, p. 3986-3997
59. **Investigation of single phase C u<sub>2</sub>ZnS<sub>nx</sub> S b<sub>1-x</sub> S<sub>4</sub> compounds processed by mechanochemical synthesis**  
Neves, F., Stark, A., Schell, N., Mendes, M. J., Aguas, H., Fortunato, E., Martins, R., Correia, J. B. & Joyce, A. L. M., 24 Jul 2018, In : Physical Review Materials. 2, 7, 075404.
60. **A Sustainable Approach to Flexible Electronics with Zinc-Tin Oxide Thin-Film Transistors**  
Fernandes, C., Santa, A., Santos, Â., Bahubalindrani, P., Deuermeier, J., Martins, R., Fortunato, E. & Barquinha, P., Jul 2018, In : Advanced Electronic Materials. 4, 7, 1800032.
61. **Passive radiofrequency x-ray dosimeter tag based on flexible radiation-sensitive oxide field-effect transistor**  
Cramer, T., Fratelli, I., Barquinha, P., Santa, A., Fernandes, C., D'Annunzio, F., Loussert, C., Martins, R., Fortunato, E. & Fraboni, B., 29 Jun 2018, In : Science Advances. 4, 6, eaat1825.
62. **High-Gain Transimpedance Amplifier for Flexible Radiation Dosimetry Using InGaZnO TFTs**  
Bahubalindrani, P., Martins, J., Santa, A., Tavares, V., Martins, R., Fortunato, E. & Barquinha, P., 22 Jun 2018, In : IEEE Journal of the Electron Devices Society. 6, p. 760-765
63. **Critical role of a double-layer configuration in solution-based unipolar resistive switching memories**  
Carlos, E., Kiazadeh, A., Deuermeier, J., Branquinho, R., Martins, R. & Fortunato, E., 19 Jun 2018, In : Nanotechnology. 29, 34, 345206.
64. **Draw Spinning of Wafer-Scale Oxide Fibers for Electronic Devices**  
Liu, A., Zhu, H., Liu, G., Noh, Y. Y., Fortunato, E., Martins, R. & Shan, F., 1 Jun 2018, In : Advanced Electronic Materials. 4, 6, 1700644.
65. **Electronic Devices Based on Oxide Thin Films Fabricated by Fiber-to-Film Process**  
Meng, Y., Liu, A., Guo, Z., Liu, G., Shin, B., Noh, Y. Y., Fortunato, E., Martins, R. & Shan, F., 30 May 2018, In : ACS Applied Materials and Interfaces. 10, 21, p. 18057-18065 9 p.
66. **Optimal-Enhanced Solar Cell Ultra-thinning with Broadband Nanophotonic Light Capture**  
Mendes, M. J., Haque, S., Sanchez-Sobrado, O., Araújo, A., Águas, H., Fortunato, E. & Martins, R., 25 May 2018, In : ISCIENCE. 3, p. 238-254
67. **Nontoxic, Eco-friendly Fully Water-Induced Ternary Zr-Gd-O Dielectric for High-Performance Transistors and Unipolar Inverters**  
Zhu, L., He, G., Li, W., Yang, B., Fortunato, E. & Martins, R., 1 May 2018, In : Advanced Electronic Materials. 4, 5, 1800100.
68. **Light-induced current mapping in oxide based solar cells with nanoscale resolution**  
Panigrahi, S., Calmeiro, T., Martins, R. & Fortunato, E., 1 Mar 2018, In : Solar Energy Materials and Solar Cells. 176, p. 310-317 8 p.

69. **Study of the stabilizer influence on the structural and optical properties of sol-gel spin coated zinc oxide films**  
Ben Wannes, H., Zaghouani, R. B., Ouertani, R., Araújo, A., Mendes, M. J., Águas, H., Fortunato, E., Martins, R. & Dimassi, W., Feb 2018, In : *Materials Science in Semiconductor Processing*. 74, p. 80-87 8 p.
70. **Passivation of Interfaces in Thin Film Solar Cells: Understanding the Effects of a Nanostructured Rear Point Contact Layer**  
Salomé, P. M. P., Vermang, B., Ribeiro-Andrade, R., Teixeira, J. P., Cunha, J. M. V., Mendes, M. J., Haque, S., Borme, J., Águas, H., Fortunato, E., Martins, R., González, J. C., Leitão, J. P., Fernandes, P. A., Edoff, M. & Sadewasser, S., 23 Jan 2018, In : *Advanced Materials Interfaces*. 5, 2, 1701101.
71. **Circularly polarized light detection on transistors using cellulose photonic dielectrics**  
Grey, P., Fernandes, S. N., Gaspar, D., Martins, R., Fortunato, E., Godinho, M. H. & Pereira, L., 1 Jan 2018, *International Conference on Nanotechnology for Renewable Materials 2018*. TAPPI Press, Vol. 1. p. 479-491 13 p.
72. **Fully solution-induced high performance indium oxide thin film transistors with  $\text{ZrO}_2$  high-k gate dielectrics**  
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