List of Publications - Dr Mónica Burriel

66 peer-reviewed articles, 2769 Citations, h-index 27
source: Scopus (02/08/2023)

Articles in peer-reviewed journals

1. A. Stangl*, D. Pla, C. Pirovano, O. Chaix-Pluchery, F. Baiutti, F. Chiabrera, A. Tarancón, C. Jiménez, M. Mermoux, **M. Burriel***, *Isotope Exchange Raman Spectroscopy (IERS): A Novel Technique to Probe Physicochemical Processes In Situ*. **Adv. Mater.** 2303259, 1–10 (2023).
2. R. Rodriguez-Lamas, D. Pla, C. Pirovano, O. Chaix-Pluchery, C. Moncasi, M. Boudard , R.-N. Vannier, C. Jiménez, **M. Burriel***, *Non-Volatile Bipolar TiN/LaMnO3/Pt Memristors with Optimized Performance*, **Materials Today Electronics**, DOI: 10.1016/j.mtelec.2023.100054 (2023)
3. C. Moncasi, G. Lefèvre, Q. Villeger, L. Rapenne, T. Khuu, F. Wilhelm, A. Rogalev, C. Jiménez, **M. Burriel***, *$La_{0.5}Sr_{0.5}MnO_{3-\delta}$ Bipolar Memristive Devices with Tunable and Stable Multilevel States*, **Adv. Mater. Interfaces** 10, (2023).
4. S. Panisset, **M. Burriel**, J. Laurencin, D. Jauffres*, Modelling of solid oxide cell oxygen electrodes. **J. Phys. Energy** 5, 022003 (2023)
5. J.D. Sirvent, A. Carmona, L. Rapenne, F. Chiabrera, A. Morata, **M. Burriel**, F. Baiutti, A. Tarancón, *Nanostructured $La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.5}O_3$-$Ce_{0.8}Sm_{0.2}O_2$ heterointerfaces as all-ceramic functional layers for solid oxide fuel cell applications*, **ACS Appl. Mater. Interfaces**, 14 (37), 42178 (2022)
6. T.-K. Khuu, G. Lefèvre, C. Jiménez, H. Roussel, A. Riaz, S. Blonkowski, E. Jalaguier, A. Bsiesy, and **M. Burriel***, *$La_2NiO_{4+\delta}$-Based Memristive Devices Integrated on Si-Based Substrates*, **Adv. Mater. Technol.**, 7 (11) 2200329 (2022). Article **highlighted** in the **"Women in Materials Science" virtual issue**.
7. C. Moncasi, G.; Lefèvre, Q. Villeger, L. Rapenne, H. Roussel, A. Bsiesy, C. Jiménez, **M. Burriel***, *Structural Defects Improve the Memristive Characteristics of Epitaxial $La_{0.8}Sr_{0.2}MnO_3$-Based Devices*, **Adv. Mater. Interfaces,** 9 (23) 2200498 (2022). **Back Cover**
8. K. Maas, C. Wulles, J. M. Caicedo, B. Ballesteros, V. Lafarge, J. Santiso*, and **M. Burriel***, *Role of pO_2 and film microstructure on the memristive properties of $La_2NiO_{4+\delta}$/$LaNiO_{3-\delta}$ bilayers*, **J. Mater. Chem. A**, 10(12), 6523 (2022). **Inside Front Cover**
9. A. Stangl*, A. Riaz, L. Rapenne, J. M. Caicedo, J. de Dios Sirvent, F. Baiutti, C. Jiménez, A. Tarancón, M. Mermoux, **M**. **Burriel***, *Tailored nano-columnar La2NiO4 cathodes for improved electrode performance*, **J. Mater. Chem. A,** 10, 2528 (2022)
10. B. Meunier*, E. Martinez, R. Rodriguez-Lamas, D. Pla, **M. Burriel**, C. Jimenez, Y. Yamashita, O. Renault*, *Unraveling the Resistive Switching Mechanisms in $LaMnO_{3+\delta}$ -Based Memristive Devices by Operando Hard X-ray Photoemission Measurements*, **ACS Appl. Electron. Mater**. 3, 12, 5555 (2021)

11. R. Rodriguez-Lamas, C. Pirovano, A. Stangl, D. Pla, R. Jónsson, L. Rapenne, E. Sarigiannidou, N. Nuns, H. Roussel, O. Chaix-Pluchery, M. Boudard, C. Jiménez, R.-N. Vannier, **M. Burriel***, *Epitaxial $LaMnO_3$ films with remarkably fast oxygen transport properties at low temperature*, **J. Mater. Chem. A,** 9, 12721 (2021)

12. J. Resende, A. Sekkat, V.-H Nguyen, T. Chatin, C. Jiménez, **M. Burriel**, D. Bellet* and D. Muñoz-Rojas*, *Planar and Transparent Memristive devices based on Titanium Oxide coated Silver Nanowire Networks with Tunable Switching Voltage*, **Small,** 2007344, 1–8 (2021). **Inside Back Cover**

13. A. Stangl, D. Muñoz-Rojas, **M. Burriel***, *In situ and operando characterisation techniques for solid oxide electrochemical cells: recent advances*, **Journal of Physics: Energy**, 3, 012001 (2021) invited topical review

14. K. Maas, E. Villepreux, D. Cooper, E. Salas-Colera, J. Rubio-Zuazo, German R. Castro, O. Renault, C. Jiménez, H. Roussel, X. Mescot, Q. Rafhay, M. Boudard and **M. Burriel*,** *Tuning Memristivity by Varying the Oxygen Content in a Mixed Ionic–Electronic Conductor*, **Adv. Funct. Mater.** 30 (17), 1909942 (2020). Article **highlighted** in the **ESRF Highlights 2020** annual booklet.

15. K. Maas, E. Villepreux, D. Cooper, C. Jiménez, H. Roussel, L. Rapenne, X. Mescot, Q. Rafhay, M. Boudard and **M. Burriel*,** *Using a mixed ionic electronic conductor to build an analog memristive device with neuromorphic programming capabilities*, **J. Mater. Chem. C**, 8, 464 (2020). **Back Cover**

16. B. Meunier, E. Martinez, R. Rodriguez-Lamas, D. Pla, **M. Burriel**, M. Boudard, C. Jiménez, J.-P. Rueff, O. Renault, *Resistive switching in a $LaMnO_{3+\delta}$/TiN memory cell investigated by operando hard X-ray photoelectron spectroscopy*, **J. Appl. Phys**. 126, 225302 (2019)

17. S. Bagdzevicius*, M. Boudard, J.M. Caicedo, L. Rapenne, X. Mescot, R. Rodríguez-Lamas, F. Robaut, J. Santiso and **M. Burriel*,** *Superposition of Interface and Volume Type Resistive Switching in perovskite nanoionic devices*, **J. Mater. Chem. C**, 7, 7580 (2019)

18. B. Meunier*, D. Pla, R. Rodriguez-Lamas, M. Boudard, O. Chaix-Pluchery, E. Martinez, N. Chevalier, C. Jiménez, **M. Burriel***, O. Renault, *Microscopic mechanisms of local interfacial resistive switching in $LaMnO_{3+\delta}$*, **ACS Applied Electronic Materials** 7, 7580 (2019)

19. M. Aono, C. Baeumer, P. Bartlett, S. Brivio, G. Burr, **M. Burriel,** *et al.*, *Valence change ReRAMs (VCM) - Experiments and modelling: general discussion*, **Faraday Discuss.** 213, 259-286 (2019)

20. S. Bagdzevicius*, M. Boudard*, J.M. Caicedo, X. Mescot, R. Rodríguez-Lamas, J. Santiso and **M. Burriel*,** *Bipolar "table with legs" resistive switching in epitaxial perovskite heterostructures*, **Solid State Ionics**, 334, 29-35 (2019)

21. R. Rodriguez-Lamas, D. Pla, O. Chaix-Pluchery, B. Meunier, F. Wilhelm, A. Rogalev, L. Rapenne, X. Mescot, Q. Rafhay, H. Roussel, M. Boudard, C. Jiménez and **M. Burriel*,** *Integration of $LaMnO_{3+\delta}$ films on platinized silicon substrates for resistive switching applications by PI-MOCVD*, **Beilstein J. Nanotechnol.,** 10, 389–398 (2019)

22. F. Chiabrera, I. Garbayo, D. Pla, **M. Burriel**, F. Wilhelm, A. Rogalev, M. Núñez, A. Morata, and A. Tarancón*, *Unraveling bulk and grain boundary electrical properties in $La_{0.8}Sr_{0.2}Mn_{1-y}O_{3\pm\delta}$ thin films*, **APL Mater.** 7, 013205 (2019)

23. A. Saranya, A. Morata, D. Pla, **M. Burriel**, F. Chiabrera, I. Garbayo, A. Hornés, J.A. Kilner, A. Tarancón*, *Unveiling the outstanding oxygen mass transport properties of Mn-rich perovskites in grain boundary-dominated* $La_{0.8}Sr_{0.2}(Mn_{1-x}Co_x)_{0.85}O_{3\pm\delta}$ *nanostructures*, **Chem. Mater.,** 30 (16), 5621–5629 (2018)

24. D. Pla, C. Jiménez and **M. Burriel***, *Engineering of Functional Manganites Grown by MOCVD for Miniaturized Devices,* **Adv. Mater. Interfaces,** 4, 1600974 (2017), invited research news to the Special Issue on Perovskites and Related Structures. **Back Cover**

25. S. Bagdzevicius, K. Maas, M. Boudard and **M. Burriel***, *Interface-type resistive switching in perovskite materials,* **J. Electroceram.,** 39 (1-4), 157-184 (2017) invited article to the Special Theme Issue: Resistive Switching: Oxide Materials, Mechanisms, Devices and Operations. **Front Cover**

26. R. K. Sharma, S.-K. Cheah, **M. Burriel**, L. Dessemond, J.-M. Bassat, and E. Djurado, *Design of* $La_{2-x}Pr_xNiO_{4+\delta}$ *SOFC cathodes: a compromise between electrochemical performance and thermodynamic stability*, **J. Mater. Chem. A**, 5 (3), 1120–1132 (2017)

27. K.-T Wu, H. Téllez, J. Druce, **M. Burriel**, F. Yang, D. W McComb, T.Ishihara, J. A. Kilner, S. J. Skinner, *Surface chemistry and restructuring in thin-film* $La_{n+1}Ni_nO_{3n+1}$ *(n = 1, 2 and 3) Ruddlesden–Popper oxides*, **J. Mater. Chem. A**, 5 (19), 9003–9013 (2017)

28. O. Çelikbilek, D. Jauffrès, E. Siebert, L. Dessemond, **M. Burriel**, C.L. Martin, E. Djurado*, *Rational design of hierarchically nanostructured electrodes for solid oxide fuel cells*, **J. Power Sources**. 333, 72–82 (2016)

29. R.K. Sharma, **M. Burriel**, L. Dessemond, J.-M. Bassat, E. Djurado*, $La_{n+1}Ni_nO_{3n+1}$ *(n = 2 and 3) phases and composites for solid oxide fuel cell cathodes: Facile synthesis and electrochemical properties*, **J. Power Sources** 325, 337–345 (2016)

30. **M. Burriel***, H. Téllez, R.J. Chater, R. Castaing, P. Veber, M. Zaghrioui, T. Ishihara, J.A. Kilner, J.-M. Bassat, *Influence of Crystal Orientation and Annealing on the Oxygen Diffusion and Surface Exchange of* $La_2NiO_{4+\delta}$**, J. Phys. Chem. C** 120, 17927–17938 (2016)

31. R.K. Sharma, **M. Burriel**, L. Dessemond, V. Martin, J.-M. Bassat, E. Djurado*, *An innovative architectural design to enhance the electrochemical performance of* $La_2NiO_{4+\delta}$ *cathodes for solid oxide fuel cell applications*, **J. Power Sources**. 316, 17–28 (2016)

32. E. Djurado*, A. Salaün, G. Mignardi, A. Rolle, **M. Burriel**, S. Daviero-Minaud, R.N. Vannier, *Electrostatic spray deposition of* $Ca_3Co_4O_{9+\delta}$ *layers to be used as cathode materials for IT-SOFC*, **Solid State Ionics**. 286, 102–110 (2016)

33. R.K. Sharma, **M. Burriel**, L. Dessemond, J.M. Bassat, E. Djurado*, *Design of interfaces in efficient* $Ln_2NiO_{4+\delta}$ *(Ln = La, Pr) cathodes for SOFC applications*, **J. Mater. Chem. A,** 4, 12451–12462 (2016)

34. O. Celikbilek, D. Jauffres, L. Dessemond, **M. Burriel**, C. L. Martin, and E. Djurado, *A Coupled Experimental/Numerical Approach for Tuning High-Performing SOFC-Cathode*, **ECS Trans.**, 72 (7), 81–92 (2016)

35. R. K. Sharma, O. Celikbilek, **M. Burriel**, L. Dessemond, J.-M. Bassat, and E. Djurado, *Electrochemical Performance and Chemical Stability of Architecturally Designed* $La_{2-x}Pr_xNi\ O_{4+\delta}$ *IT-SOFC Cathodes*, **ECS Trans.** 72 (33), 1–8 (2016)

36. R. K. Sharma, **M. Burriel** and E. Djurado[*], *$La_4Ni_3O_{10-\delta}$ as an efficient solid oxide fuel cell cathode: electrochemical properties versus microstructure*, **J. Mater. Chem. A** 3, 23833-23843 (2015)

37. Y. Chen[#], H. Téllez[#], **M. Burriel[#]**, F. Yang, N. Tsvetkov, Z. Cai, D. W. McComb, J. A. Kilner[*], and B. Yildiz[*], *Segregated chemistry and structure on (001) and (100) surfaces of $(La_{1-x}Sr_x)_2CoO_4$ override the crystal anisotropy in oxygen exchange kinetics,* **Chem. Mater.** 27 (15), 5436–5450 (2015) ([#] these three authors contributed equally)

38. A.M. Saranya, D. Pla, A. Morata, A. Cavallaro, J. Canales-Vázquez, J.A. Kilner, **M. Burriel**[*] and A. Tarancón[*], *Engineering Mixed Ionic Electronic Conduction in $La_{0.8}Sr_{0.2}MnO_{3+\delta}$ Nanostructures through Fast Grain Boundary Oxygen Diffusivity*, **Adv. Energy Mater.** 5 (11), 1500377 (2015). **Back cover.**

39. T. Inprasit, S. Wongkasemjit, S. J. Skinner, **M. Burriel** and P. Limthongkul[*], *Effect of Sr substituted $La_{2-x}Sr_xNiO_{4\pm\delta}$ (x = 0, 0.2, 0.4, 0.6, and 0.8) on oxygen stoichiometry and oxygen transport properties,* **RSC Adv.** 5 (4), 2486-2492 (2015)

40. A. Tarancón, A. Morata, D. Pla, A.M.Saranya, F.Chiabrera, I. Garbayo, A. Cavallaro, J. Canales-Vázquez, J.A.Kilner and **M. Burriel**, *Grain boundary engineering to improve ionic conduction in thin films for micro-SOFCs,* **ECS Transactions** 69 (16), 11-16 (2015)

41. K.-T. Wu, H. Téllez, J. Druce, **M. Burriel**, T. Ishihara, J.A. Kilner and S. Skinner, *Surface composition of layered Ruddlesden-Popper $La_{n+1}Ni_nO_{3n+1}$ (n = 1, 2 and 3) epitaxial films,* **ECS Transactions** 66 (2), 89-93 (2015)

42. **M. Burriel**[*], S. Wilkins, J. P. Hill, M. A. Muñoz-Márquez, H. H. Brongersma, J. A. Kilner, M. P. Ryan, and S. J. Skinner, *Absence of Ni on the outer surface of Sr doped La_2NiO_4 single crystals*, **Energy Environ. Sci.** 7, 1, 311-316 (2014)

43. J. A. Kilner and **M. Burriel**, *Materials for Intermediate-Temperature Solid-Oxide Fuel Cells*, **Annu. Rev. Mater. Res.** 44-1 (2014) invited review

44. J. Druce[*], H. Téllez[*], **M. Burriel**, M. D. Sharp, L. J. Fawcett, S. N. Cook, D. S. McPhail, T. Ishihara, H. H. Brongersma, and J. A. Kilner, *Surface Termination and Subsurface Restructuring of Perovskite-based Solid Oxide Electrode Materials,* **Energy Environ. Sci.** 7, 3593-3599 (2014)

45. F. Yang, Y. Chen, Z. Cai, N. Tsvetkov, **M. Burriel**, H. Tellez, B. Yildiz, J. A. Kilner, D.B. Williams and D.W. McComb, *High Resolution Electron Microscopy Characterization of $(La_{0.5}Sr_{0.5})_2CoO_4$ Thin Film Cathode Materials*. **Microsc. Microanal.** 20 (Suppl. 3), 1912-1913 (2014)

46. H. Téllez[*], A. Aguadero, J. W. Druce, **M. Burriel**, J. A. Kilner, D. S. McPhail, S. Fearn, T. Ishihara, *New Perspectives in Surface Analysis of Energy Materials by combined Time-of-Flight Secondary Ion Mass Spectrometry (ToF-SIMS) and High Sensitivity Low-Energy Ion Scattering (HS-LEIS)*, **J. Anal. Atom. Spec.** 29 (8), 1361-1370 (2014)

47. J.M. Bassat[*], **M. Burriel[*]**, O. Wahyudi, R. Castaing, M. Ceretti, P. Veber, I. Weill, A. Villesuzanne, J.C. Grenier, W. Paulus, and J.A. Kilner, *Anisotropic oxygen diffusion properties in $Pr_2NiO_{4+\delta}$ and $Nd_2NiO_{4+\delta}$ single crystals,* **J. Phys. Chem. C.** 117 (50), 26466–26472 (2013)

48. J. Zapata, **M. Burriel[*]**, P. García, J. A. Kilner and J. Santiso[*], *Anisotropic ^{18}O tracer diffusion in epitaxial films of $GdBaCo_2O_{5+\delta}$ cathode material with different orientations,* **J. Mater. Chem. A** 1, 7408-7414 (2013)

49. N. Ortiz-Vitoriano, I. Ruiz de Larramendi, S.N. Cook, **M. Burriel,** A. Aguadero, J.A. Kilner and T. Rojo*, *The Formation of Performance Enhancing Pseudo-Composites in the Highly Active $La_{1-x}Ca_xFe_{0.8}Ni_{0.2}O_{3-\delta}$ System for IT-SOFC Application*, **Adv. Funct. Mater.** 23 (41), 5131-5139 (2013)

50. J.A. Kilner, H. Tellez Lozano, **M. Burriel**, S. Cook, and J. Druce, *The Application Of Ion Beam Analysis To Mass Transport Studies In Mixed Electronic Ionic Conducting Electrodes,* **ECS Transactions** 57 (1), 1701-1708 (2013)

51. J. M. Bassat, **M. Burriel**, M. Ceretti, P. Veber, J.C. Grenier, W. Paulus and J.A. Kilner, *Highlights on the anisotropic oxygen transport properties of nickelates with K_2NiF_4-type structure: links with the electrochemical properties of the corresponding IT-SOFC's cathodes,* **ECS Transactions** 57 (1), 1753-1760 (2013)

52. V. B. Vert, J. M. Serra, J. A. Kilner, **M. Burriel**[*], *Enhanced oxygen diffusion in low barium-containing $La_{0.2175}Pr_{0.2175}Ba_{0.145}Sr_{0.4}Fe_{0.8}Co_{0.2}O_{3-\delta}$ intermediate temperature solid oxide fuel cell cathodes,* **J. Power Sources** 213, 270-274 (2012)

53. **M. Burriel**[*], J. Peña-Martínez, R.J. Chater, S. Fearn, A.V. Berenov, S.J. Skinner, J.A. Kilner, *Anisotropic Oxygen Ion Diffusion in Layered $PrBaCo_2O_{5+\delta}$,* **Chem. Mater.** 24 (3), 613–621 (2012)

54. C. Niedrig[*], S. Taufall, **M. Burriel**, W. Menesklou, S.F. Wagner, S. Baumann and E. Ivers-Tiffée, *Thermal Stability of the Cubic Phase in $Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-\delta}$ (BSCF),* **Solid State Ionics** 197 (1), 25-31 (2011).

55. J. Santiso[*] and **M. Burriel**, *Deposition and characterisation of epitaxial oxide thin films for SOFCs,* **J. Solid State Electrochem.** 15 (5), 985-1006 (2011), invited review.

56. **M. Burriel**[*], M. Casas-Cabanas, J. Zapata, H. Tan, J. Verbeeck, C. Solís, J. Roqueta, S.J. Skinner, J.A. Kilner, G. Van Tendeloo and J. Santiso, *Influence of the microstructure on the high temperature transport properties of $GdBaCo_2O_{5.5+\delta}$ epitaxial films,* **Chem. Mater.** 22 (19), 5512–5520 (2010).

57. A. Cavallaro, **M. Burriel**, J. Roqueta, A. Apostolidis, A. Bernardi, A. Tarancón, R. Srinivasan, S. N. Cook, H.L. Fraser, J.A. Kilner, D.W. McComb, J. Santiso[*], *Electronic nature of the enhanced conductivity in YSZ-STO multilayers deposited by PLD,* **Solid State Ionics** 181 [13-14], 592-601 (2010).

58. **M. Burriel**[*], C. Niedrig, S.F.Wagner, W. Menesklou, J. Santiso and E. Ivers-Tiffée, *BSCF epitaxial thin films: Electrical transport and oxygen surface exchange,* **Solid State Ionics** 181 [13-14], 602-608 (2010).

59. A. Tarancón[*], **M. Burriel**[*], J. Santiso, S.J. Skinner and J.A. Kilner[*], *Advances in layered oxide cathodes for intermediate temperature solid oxide fuel cells,* **J. Mater. Chem.** 20, 3799-3813 (2010) invited review

60. **M. Burriel**, J. Santiso, M. Rossell, G. Van Tendeloo, A. Figueras and G. Garcia[*], *Enhancing Total Conductivity of $La_2NiO_{4+\delta}$ Epitaxial Thin Films by Reducing Thickness***, J. Phys. Chem. C** 112 [29], 10982-10987 (2008)

61. G. Garcia[*], **M. Burriel**, J. Santiso and N. Bonanos, *Electrical conductivity and oxygen exchange kinetics of $La_2NiO_{4+\delta}$ thin films grown by Chemical Vapour Deposition*, **J. Electrochem. Soc.** 155 [3], 28-32 (2008).

62. **M. Burriel**, G. Garcia, J. Santiso*, J. A. Kilner, R. J. Chater and S. J. Skinner, *Anisotropic oxygen diffusion properties in epitaxial thin films of $La_2NiO_{4+\delta}$,* **J. Mater. Chem.** 18, 416-422 (2008). **Work selected as "hot article"**

63. **M. Burriel**, G. Garcia, M. Rossell, A. Figueras, G. Van Tendeloo, J. Santiso*, *Enhanced high-temperature electronic transport properties in nanostructured epitaxial thin films of the $La_{n+1}Ni_nO_{3n+1}$ Ruddlesden-Popper series (n = 1, 2, 3, ∞)*, **Chem. Mater.** 19 [16], 4056-4062 (2007).

64. A.N. Hansson*, **M. Burriel**, G. Garcia, S. Linderoth, M.A.J. Somers, *Oxidation of Fe-22Cr Coated with Co_3O_4: Microstructure Evolution and the Effect of Growth Stresses,* **Oxid. Met.** 68 [1-2], 23-36 (2007).

65. **M. Burriel**, G. Garcia*, J. Santiso, A. N. Hansson, S. Linderoth, A.Figueras, *Co_3O_4 protective coatings prepared by pulsed injection metal-organic chemical vapour deposition,* **Thin Solid Films** 473, 98-103 (2005).

66. **M. Burriel**, G. Garcia*, J. Santiso, A. Abrutis, Z. Saltyte and A. Figueras, *Growth kinetics, composition and morphology of Co_3O_4 thin films prepared by the Pulsed Liquid Injection MOCVD,* **Chem. Vapor Depos.** 11, 106-111 (2005).

Editorials

67. **M. Burriel**, R. Dittmann, A. Tarancón, D.S. Mebane, *Special Issue for the E-MRS Spring Meeting Symposium R on Solid State Ionics*, **Solid State Ionics**, 334, 87 (2019)

68. R. A. De Souza, K. Amezawa, **M. Burriel**, W. Chueh, and E. M. Kelder, *Special Issue for the E-MRS Spring Meeting Symposium D on Solid State Ionics*, **Solid State Ionics**, 299, 1 (2017)

Books, book chapters and ebook chapters

1. O. Celikbilek and **M. Burriel,** *Recent advances on the understanding of the influence of surface chemistry and microstructure on the functional properties of Solid Oxide Cell air electrodes*. In: Katherine Develos-Bagarinao. (ed) In: Nanoengineered Materials for Solid Oxide Cells, IOP Publishing eBooks (2023) pp. 2-1-2–37

2. S. Bagdzevicius, K. Maas, M. Boudard, **M. Burriel,** *Interface-Type Resistive Switching in Perovskite Materials*. In: Rupp J., Ielmini D., Valov I. (eds) Resistive Switching: Oxide Materials, Mechanisms, Devices and Operations. Electronic Materials: Science & Technology. Springer, Cham, (2022) Print ISBN: 978-3-030-42423-7, Online ISBN: 978-3-030-42424-4; pp. 235–287

3. **M. Burriel López,** *Epitaxial Thin Films of Lanthanum Nickel Oxides. Deposition by PI-MOCVD, Structural Characterization and High Temperature Transport Properties,* Verlag Dr. Müller (2008) ISBN 978-3-8364-7497-9

Conference proceedings

1. J. M. Bassat, **M. Burriel,** R. Castaing, O. Wahyudi, P. Veber, I. Weill, M. Zaghrioui, M. Cerreti, A. Villesuzanne, W. Paulus, J. C. Grenier and J. A. Kilner, **"Anisotropy of the oxygen diffusion in $Ln_2NiO_{4+\delta}$ (Ln=La, Nd, Pr) single crystals**", *Proceedings of the 10th European SOFC Forum*, Lucerne, Switzerland, 2012.

2. J. A. Kilner, **M. Burriel,** S. Cook, H. Tellez, M. Sharp and J. Druce, **"LEIS of Oxide Air Electrode Surfaces**", *Proceedings of the 10th European SOFC Forum*, Lucerne, Switzerland, 2012.

3. **M. Burriel**, S. Wilkins, J. Hill, M. Ryan, S.J. Skinner and J.A. Kilner, **"Study of the surface structure of Sr doped La_2NiO_4 single crystal"**, *Proceedings of the 9th European SOFC Forum*, Lucerne, Switzerland, 2010.

4. **M. Burriel**, M. Casas-Cabanas, J. Zapata, H. Tan, J. Verbeeck, C. Solís, J. Roqueta, S.J. Skinner, J.A. Kilner, G. Van Tendeloo and J. Santiso, **"Microstructure and Transport Properties of $GdBaCo_2O_{5+\delta}$ Epitaxial Thin Films"**, *Proceedings of the 9th European SOFC Forum*, Lucerne, Switzerland, 2010.

5. **M. Burriel**, G. Garcia, J. Santiso, J. A. Kilner, R. J. Chater and S. J. Skinner, **Oxygen Transport in Epitaxial Thin Films of $La_2NiO_{4+\delta}$**, *Proceedings of the 7th European SOFC Forum*, Lucerne, Switzerland, 2006.

6. **M. Burriel**, G. Garcia, M.D. Rossell, and J. Santiso, **Propiedades de transporte a alta temperatura de capas delgadas de niquelatos de lantano preparadas mediante MOCVD**, *Proceedings of the 2nd National Congress of Fuel Cells*, CONAPPICE, Madrid, Spain, 2006.

7. **M. Burriel**, C. Solís, G. Garcia, M. D. Rossell, M. Casas-Cabanas, G. Van Tendeloo, S. J. Skinner, J. A. Kilner, J. Santiso, **Influencia de la microestructura en el transporte electrónico de películas delgadas de conductores mixtos de estructura laminar,** *Proceedings of the 3rd National Congress of Fuel Cells*, CONAPPICE, Zaragoza, Spain, 2008.

Others

1. K. Maas, E. Villepreux, D. Cooper, E. Salas-Colera, J. Rubio-Zuazo, German R. Castro, O. Renault, C. Jiménez, H. Roussel, X. Mescot, Q. Rafhay, M. Boudard and **M. Burriel*,** *Oxygen Content: A key parameter to tune the memristivity in lanthanum nickelate-based memory devices*, **ESRF Highlights 2020 annual booklet**