

Niels Christiansen publications (1989-2014)

- [1] N. Christiansen and R. Riman, Bioceramics – a Future through Microstructural and Chemical Design, (p.209-221) in New Materials and processes, 5th SSMS, 1989.
- [2] N. Christiansen and P. Gordes, Powder Synthesis and Tape casting of Strontium Doped Lanthanum Manganites for SOFC Electrodes, Second International Symposium on Solid Oxide Fuel Cells, Athens (1991).
- [3] N. Christiansen, Physical Characteristics of Porous Fuels Cell Structures, Nordic Symposium on Materials in High Temperature Fuel Cells, Oslo (1991).
- [4] C. Olsen, F. Borup, N. J. Bjerrum H. A. Hjuler and N. Christiansen, MCFC-research in Denmark, Nordic Symposium on Materials in High Temperature Fuel Cells, Oslo (1991).
- [5] B. C. Knutz, P. Gordes, C. Bagger, N. Christiansen and N. J. Bjerrum, Synthesis and Characterisation of La(Ca)CrO₃ Ceramic Powders, Nordic Symposium on Materials in High Temperature Fuel Cells, Oslo (1991).
- [6] N. Christiansen, P. Gordes, N. C. Alstrup and G. Mogensen, Synthesis and Stability of Cobalt-Substituted Lanthanum Calcium Chromite, ECS volume 93-4, SOFC III, Honolulu (1993).
- [7] K.W. Rasmussen, O. T. Petersen, W.B. Petersen and N. Christiansen, Gelcasting of Oxide Ceramics Using an Acrylate System, Am. Cer. Soc. Annual Meeting, 1993.
- [8] P. Gordes and N. Christiansen, Synthesis and Characterisation of a New Perovskite Material for SOFC Applications, ECS volume 93-4, SOFC III, Honolulu (1993).
- [9] M. Mogensen and N. Christiansen, Fuel Cells, Europhysics News, vol. 24, no.1, (1993).
- [10] N. Christiansen, Development of High Temperature Fuel Cells at Haldor Topsøe A/S, Second Nordic Symposium on High temperature Fuel cells, Geilo (1994).
- [11] P. Gordes, N. Christiansen and E. M. H. Paris, Investigation of Strontium Solubility in the LaFeO₃-type Compounds, Second Nordic Symposium on High temperature Fuel cells, Geilo (1994).
- [12] N. Christiansen and K. Aasberg-Petersen, Development of High Temperature Fuel Cells at Haldor Topsøe A/S, 2nd Nordic Symposium on High Temperature Fuel Cells, Oslo (1994).
- [13] N. Christiansen, Development of High Temperature Fuel Cells at Haldor Topsøe A/S, The First Fuel Cell Symposium in Tokyo, Tokyo (1994).
- [14] P. Gordes and N. Christiansen, Combustion Synthesis of Perovskite Oxides used in SOFC Technology, First European Solid Oxide Fuel Cell Conference, Lucerne (1994).

- [15] N. Christiansen, Production and use of Advanced technical Ceramics, First International Seminar on New Materials and Work Environment, Copenhagen (1994).
- [16] P. Gordes, N. Christiansen, E. J. Jensen and J. Villadsen, Synthesis of Perovskite Compounds by Drip pyrolysis, Journal of Material Science, no. 30, (1995).
- [17] T. Norby and N. Christiansen, Proton Conduction in Ca- and Sr- substituted LaPO₄, Solid State Ionics, 77, (1995).
- [18] C. Bagger, N. Christiansen, P. V. Hendriksen, E. J. Jensen, S. S. Larsen and M. Mogensen, Techno-Economic Problems of SOFC Commercialization, in: Proceedings 17th Risø International Symposium on Material science, Risø, (1996).
- [19] P. Gordes, N. Christiansen, Cheap SOFC Materials, Fuel Cell Seminar, (1998).
- [20] P. Gordes, N. Christiansen, Using alternative Materials in SOFC Technology, Electroceramics VII, Portoroz, Slovenia (2000).
- [21] Niels Christiansen, Steen Kristensen, Helge Holm-Larsen, and Peter Halvor Larsen, Mogens Mogensen, Peter Vang Hendriksen and Søren Linderøth, Status of SOFC Development at Haldor Topsøe/Risø, European SOFC Lucerne (2002).
- [22] Jens Pålsson, John Bøgild Hansen, Niels Christiansen, Jens Ulrik Nielsen, and Steen Kristensen, Solid Oxide Fuel Cells – Assessment of the Technology from an Industrial Perspective, First Risø International Energy Conference, Risø (2003).
- [23] Niels Christiansen, Steen Kristensen, Helge Holm-Larsen, Peter Halvor Larsen, Mogens Mogensen, Peter Vang Hendriksen and Søren Linderøth, Status of the SOFC development at Haldor Topsøe/Risø, ECS vol. 2003-07, SOFC VIII, Paris (2003).
- [24] P. Huczowski, N. Christiansen, V. Shemet, J. Piron-Abellan, L. Singheiser, W.J. Quadackers, Oxidation Induced Lifetime Limits of Chromia Forming Ferritic Interconnector Steels, Journal of Fuel Cell Science and Technology 1, (2004).
- [25] P. Huczowski, N. Christiansen, V. Shemet, J. Piron-Abellan, L. Singheiser, W.J. Quadackers, Oxidation Limited Life Times of Chromia Forming Ferritic Steels, Materials and Corrosion 55 (11), (2004).
- [26] P. Huczowski, N. Christiansen, V. Shemet, L. Singheiser, W.J. Quadackers, Growth rates and electrical conductivity of oxide scales on ferritic steels proposed as interconnect materials for SOFC, 6th European SOFC Forum, Lucerne (2004).
- [27] Elena Konycheva, Joachim Laatsch, Egbert Wessel, Frank Tietz, Niels Christiansen, Lorenz Singheiser and Klaus Hilpert, Contact Resistance between La_{0.65}Sr_{0.3}MnO₃ and Different Steels using a Perovskite Intermediate Contact Layer, 6th European SOFC Forum, Lucerne (2004).
- [28] F. Tietz, N. Dekker, G. Rietveld, T. Fich Pedersen, P. Friehling, S. Koch, M. Mogensen, N. Christiansen, P. Gordes, P. Butler, R. Cunningham, L. G. J. de Haart, J. Laatsch, J. Malzbender, H. Nabielek, R. Steinbrech, Component Reliability in Solid Oxide Fuel Cell Systems for Commercial Operation, European SOFC Forum, Lucerne (2004).

- [29] Pawel Huczowski, Niels Christiansen, Vladimir Shemet, Lorenz Singheiser and Willem J. Quadackers, Growth Rates and Electrical Conductivity of Oxide Scales on Ferritic Steels Proposed as Interconnect Materials for SOFC's, Fuel Cells, 2, pp. 93-96, Wiley-VCH, (2004).
- [30] Niels Christiansen, Steen Kristensen, Helge Holm-Larsen, Peter Halvor Larsen, Mogens Mogensen, Peter Vang Hendriksen and Søren Linderøth, Status and Recent Advances in SOFC Development at Haldor Topsøe/Risø, European SOFC Forum, Lucerne (2004).
- [31] N. Christiansen, J. B. Hansen, S. Kristensen, H. Holm-Larsen, S. Linderøth, P. V. Hendriksen, P. H. Larsen, M. Mogensen, SOFC Development Program at Haldor Topsøe/Risø National Laboratory Progress Presentation, Fuel Cell Seminar, San Antonio (2004).
- [32] E. Fontell, T. Kivisaari, N. Christiansen, J. B. Hansen, J. Pålsson, Conceptual study of a 250 kW planar SOFC system for CHP application, Journal of Power Sources, 131, (2004).
- [33] Niels Christiansen, Steen Kristensen, Helge Holm-Larsen, Peter Halvor Larsen, Mogens Mogensen, Peter Vang Hendriksen and Søren Linderøth, Status and recent progress in SOFC development at Haldor Topsøe A/S and Risø, ECS volume 2005-07, SOFC IX, Quebec (2005).
- [34] N. Christiansen, J. B. Hansen, S. Kristensen, H. Holm-Larsen, S. Linderøth, P. V. Hendriksen, P. H. Larsen, M. Mogensen, Status and recent progress in SOFC development at Haldor Topsøe A/S and Risø, Fuel Cell Seminar, Palm Springs (2005).
- [35] J. B. Hansen, J. Pålsson, J. U. Nielsen, N. Christiansen, E. Ramschak, M. Schüssler, P. Prenninger, Successful Testing of a SOFC Stack for Mobile APU Applications, Fuel Cell Seminar, Palm Springs (2005).
- [36] P. Huczowski, S. T. Ertl, N. Christiansen, T. Höfler, E. Wessel, V. Shemet, L. Singheiser, W. J. Quadackers, Effect of Component Thickness on the Oxidation Rate of Chromia Forming Ferritic Steels in Different SOFC Relevant Environments, Fuel Cell Seminar "Progress, Challenges and Markets", Palm Springs (2005).
- [37] P. Huczowski, S. Ertl, J. Piron-Abellan, N. Christiansen, T. Höfler, V. Shemet, L. Singheiser, W. J. Quadackers, Effect of Component Thickness on Lifetime and Oxidation Rate of Chromia Forming Ferritic Steels in Low and High pO_2 Environments, Materials at High Temperatures 22, (2005).
- [38] Pawel Huczowski, Niels Christiansen, Vladimir Shemet, Lorenz Singheiser and Willem J. Quadackers, Growth Rates and Electrical Conductivity of Oxide Scales on Ferritic Steels Proposed as Interconnect Materials for SOFC's, Fuel Cells, 2, pp. 93-96, Wiley-VCH, (2006).
- [39] Elena Konycheva, Joachim Laatsch, Egbert Wessel, Frank Tietz, Niels Christiansen, Lorenz Singheiser and Klaus Hilpert, Influence of different Perovskite Interlayers on the Electrical Conductivity between LSM and Fe/Cr based Steels, Solid State Ionics, 177, pp. 923-930, (2006).

- [40] J.R. Rostrup-Nielsen, J.B. Hansen, S. Helveg, N. Christiansen, A-K. Jannasch, "Sites for Catalysis and Electrochemistry in SOFC Anode", *Journal of Applied Physics*, volume 84 issue 4, (2006).
- [41] Niels Christiansen, John B. Hansen, Helge Holm-Larsen, Søren Linderøth, Peter H. Larsen, Peter V. Hendriksen and Mogens Mogensen, *Solid Oxide Fuel Cell Development at Topsoe Fuel Cell A/S and Risø*, European SOFC Forum, Lucerne (2006).
- [42] N. Christiansen, J. B. Hansen, H. Holm-Larsen, S. Linderøth, P. H. Larsen, P. V. Hendriksen and M. Mogensen, *Solid Oxide Fuel Cell Development at Topsoe Fuel Cell A/S and Risø*, Fuel Cell Seminar, Honolulu (2006).
- [43] P. Huczowski, N. Christiansen, V. Shemet, L. Niewolak, J. Piron-Abellan, L. Singheiser and W. J. Quadackers, *Growth Mechanisms and Electrical Conductivity of Oxide Scales on Ferritic Steels Proposed as Interconnect Materials for SOFC's*, Fuel Cells 06, No. 2, (2006).
- [44] Niels Christiansen, John B. Hansen, Helge Holm-Larsen, Søren Linderøth, Peter H. Larsen, Peter V. Hendriksen, Mogens Mogensen, *Solid oxide fuel cell development at Topsoe Fuel Cell and Risø*, Fuel Cells Bulletin, Volume 2006, Issue 8, Pages 12–15, (2006).
- [45] N. Christiansen, J. B. Hansen, H. Holm-Larsen, S. Linderøth, P. H. Larsen, P. V. Hendriksen and A. Hagen, *Solid Oxide Fuel Cell Development at Topsoe Fuel Cell A/S and Risø National Laboratory*, Risø International Energy Conference, Risø (2007).
- [46] N. Christiansen, J. B. Hansen, H. Holm-Larsen, S. Linderøth, P. H. Larsen, P. V. Hendriksen and A. Hagen, *Solid Oxide Fuel Cell Development at Topsoe Fuel Cell A/S and Risø National Laboratory*, ECS transactions vol. 7 no. 1, SOFC X, Nara (2007).
- [47] John Bøgild Hansen, Niels. Christiansen, *Solid Oxide Fuel Cell Development at Topsoe Fuel Cell A/S*, World Hydrogen Technologies Convention, Montecatini Terme (2007).
- [48] N. Christiansen, J. B. Hansen, *Development and Manufacture of Solid Oxide Fuel Cell at Topsoe Fuel Cell A/S and Risø*, Second European Fuel Cell Technology and Application Conference, Rome (2007).
- [49] N. Christiansen, J. B. Hansen, H. Holm-Larsen, M.J. Jørgensen, L. Theil Kuhn, P. V. Hendriksen, A. Hagen and S. Linderøth, *Solid Oxide Fuel Cell Research and Development at Topsoe Fuel Cell A/S and Risø/DTU*, European SOFC Forum, Lucerne (2008).
- [50] Niels Christiansen, John B. Hansen, Helge Holm-Larsen, Mette J. Jørgensen, Søren Linderøth, Peter V. Hendriksen, Anke Hagen. *Development and Manufacture of Solid Oxide Fuel Cell at Topsoe Fuel Cell A/S and Risø*, Fuel Cell Seminar, Phoenix Arizona (2008).
- [51] Niels Christiansen, *Fuel Cells for the Future*, ATV Conference "Energy 2008+", Copenhagen (2008).

- [52] Niels Christiansen, From Material Science to SOFC Technology, Bunsentagung 2009 – Physical Chemistry of Solids: The Science behind Materials Engineering, Köln (2009).
- [53] N. Christiansen, J. B. Hansen, H. Holm-Larsen, M. J. Jørgensen, M. Wandel, P. V. Hendriksen, A. Hagen and S. Ramousse, Status of Development and Manufacture of Solid Oxide Fuel Cells at Topsoe Fuel Cell A/S & Risø DTU, ECS transactions vol. 25 no. 2, SOFC XI, Vienna (2009).
- [54] Helge Holm-Larsen, Mette Juhl Jørgensen, Niels Christiansen, Peter Vang Hendriksen, Anke Hagen, Severine Ramousse and Marie Wandel, Recent Progress in Development and Manufacture of Solid Oxide Fuel Cell at Topsoe Fuel Cell A/S and Risø DTU, Fuel Cell Seminar, Palm Springs (2009).
- [55] Robert Steinberger-Wilckens, Niels Christiansen, High Temperature Fuel Cells in Decentralised Power Generation, In: Hydrogen and Fuel Cells - Fundamentals Technologies and Applications, pp. 735-755, Wiley-VCH Verlag GmbH. ISBN 978-3-527-32711-9, (2010).
- [56] Niels Christiansen, Experience with SOFC Stacks, First International Conference on Materials for Energy, Karlsruhe (2010).
- [57] N. Christiansen, H. Holm-Larsen, M. J. Jørgensen, M. Wandel, A. Hagen and S. Ramousse, Status of development and manufacture of Solid Oxide Fuel Cells at Topsoe Fuel Cell A/S and Risø-DTU, European SOFC Forum, Lucerne (2010).
- [58] Helge Holm-Larsen, Mette Juhl Jørgensen, Niels Christiansen, J. H. Jacobsen, Recent Progress in Development and Manufacture of Solid Oxide Fuel Cell at Topsoe Fuel Cell, Fuel Cell Seminar, San Antonio (2010).
- [59] John Bøggild Hansen, Jørgen Madsen, Jens U Nielsen, Niels Christiansen, Ammonia as SOFC fuel - Assessment from natural gas, coal or biomass to power and heat, Journal of Power Sources, (2010).
- [60] N. Christiansen, H. Holm-Larsen, S. Primdahl, M. Wandel, S. Ramousse, A. Hagen, Recent Progress in Development and Manufacturing of SOFC at Topsoe Fuel Cell A/S and Risø DTU, ECS transactions vol. 35 no.1, SOFC XII, Montreal (2011).
- [61] J.B. Hansen, N. Christiansen, J.U. Nielsen, Production of Sustainable Fuels by Means of Solid Oxide Electrolysis, ECS Transactions, vol. 35. no.1. SOFC XII, Montreal (2011).
- [62] Helge Holm-Larsen, Mette Juhl Jørgensen, Niels Christiansen, J. H. Jacobsen, Recent Progress in Development and Manufacture of Solid Oxide Fuel Cell at Topsoe Fuel Cell, Fuel Cell Seminar, Orlando (2011).
- [63] Niels Christiansen, Future Fuel Cells, in: Solid Oxide Fuel Cells: Facts and Figures, pp. 203-229, Springer Verlag, ISBN 1865-3529, (2012).
- [64] Mogens Mogensen, Søren H. Jensen, Sune D. Ebbesen, Anne Hauch, Christopher Graves, Jens V. T. Høgh, Xiufu Sun, Shital Das, Peter V. Hendriksen, Jens U. Nielsen, Aksel H. Pedersen, Niels Christiansen, John B. Hansen, Production of "Green Natural Gas" Using Solid Oxide Electrolysis Cells (SOEC): Status of Technology and Costs, World Gas Conference, Kuala Lumpur, (2012).

- [65] John B. Hansen, Niels Christiansen, Is SOFC technology ready for the market or is the market ready for SOFC technology, In: Encyclopedia of sustainable Science and Technology, VI, Fuel Cells, pp. 687-730, Spriger Verlag, ISBN 978-1-4614-5785-5, (2012).
- [66] Anke Hagen, Niels Christiansen, Risø/Topsoe SOFC Activities, Werkstofffragen der Hochtemperatur Brennstoffzelle (SOFC), Juelich (2012).
- [67] Niels Christiansen, Søren Primdahl, Marie Wandel, Severine Ramousse and Anke Hagen, Status of the Solid Oxide Fuel Cell Development at Topsoe Fuel cell A/S and Risø DTU, 10th European SOFC Forum, Lucerne (2012).
- [68] J. B. Hansen, I. Dybkjær, C. F. Pedersen, J. U. Nielsen and N. Christiansen, SOEC enabled Methanol Synthesis, 10th European SOFC Forum, Lucerne (2012).
- [69] Brandon J. McKenna, Niels Christiansen, Richard Schauerl, Peter Prenninger, Peter Blennow, Trine Klemensø, Severine Ramousse, Alexander Kromp, André Weber, Advances in Metal Supported Cells in the METSOFC EU Consortium, Fuel Cells 13, (4), pp. 592-597, (2013).
- [70] N. Christiansen, S. Primdahl, M. Wandel, S. Ramousse, A. Hagen, Status of the Solid Oxide Fuel Cell Development at Topsoe Fuel Cell A/S and DTU Energy Conversion, in journal: E C S Transactions (ISSN: 1938-5862), (57), page: 43-52, (2013).
- [71] Q. Fu, J. Bomhard, A. Brisse, D. Montinaro and N. Christiansen, Transient operation of a Solid Electrolyzer Stack, 11th European SOFC Forum, Lucerne (2014).
- [72] N. Christiansen, APU – SOFC: Cell, Stack and System, in: Data Facts and Figures, Wiley-VCH, in press, (2014).