

F2.2 (E. Ivers-Tiffée)

- [F2.2:1] C. Peters, M. Bockmeyer, R. Krüger, A. Weber, and E. Ivers-Tiffée, *Processing of Dense Nanocrystalline Zirconia Thin Films by Sol-Gel Method*, [Mater. Res. Soc. Symp. Proc. Vol. 928, 0928-GG16-01 \(2006\)](#)
- [F2.2:2] * B. Butz, P. Kruse, H. Störmer, D. Gerthsen, A. Müller, A. Weber, and E. Ivers-Tiffée, *Correlation between microstructure and degradation in conductivity for Y₂O₃-doped ZrO₂*, [Solid State Ionics 177, 3275 \(2006\)](#)
- [F2.2:3] B. Rüter, A. Weber, and E. Ivers-Tiffée, *3D-Modelling and Performance Evaluation of Mixed Conducting (MIEC) Cathodes*, [ECS Transactions 7, 2065 \(2007\)](#)
- [F2.2:4] A. Leonide, V. Sonn, A. Weber, and E. Ivers-Tiffée, *Evaluation and modeling of the cell resistance in anode-supported solid oxide fuel cells*, [J. Electrochem. Soc. 155, B36 \(2008\)](#)
- [F2.2:5] * B. Butz, H. Störmer, D. Gerthsen, M. Bockmeyer, R. Krüger, E. Ivers-Tiffée, and M. Luysberg, *Microstructure of nanocrystalline yttria-doped zirconia thin films obtained by sol-gel processing*, [J. Am. Ceram. Soc. 91, 2281 \(2008\)](#)
- [F2.2:6] * ‡ L. Dieterle, D. Bach, R. Schneider, H. Störmer, D. Gerthsen, U. Guntow, E. Ivers-Tiffée, A. Weber, C. Peters, and H. Yokokawa, *Structural and chemical properties of nanocrystalline La_{0.5}Sr_{0.5}CoO_{3-δ} layers on yttria-stabilized zirconia analyzed by transmission electron microscopy*, [J. Mater. Sci. 43, 3135 \(2008\)](#)
- [F2.2:7] C. Peters, A. Weber, and E. Ivers-Tiffée, *Nanoscaled (La_{0.5}Sr_{0.5})CoO_{3-δ} Thin Film Cathodes for SOFC Application at 500 °C < T < 700 °C*, [J. Electrochem. Soc. 155, B730 \(2008\)](#)
- [F2.2:8] C. Endler, A. Leonide, A. Weber, E. Ivers-Tiffée, and F. Tietz, *Long-Term Study of MIEC Cathodes for intermediate temperature Solid Oxide Fuel Cells*, [ECS Transactions 25, 2381 \(2009\)](#)
- [F2.2:9] B. Rüter, J. Joos, T. Carraro, A. Weber, and E. Ivers-Tiffée, *3D Electrode Microstructure Reconstruction and Modelling*, [ECS Transactions 25, 1211 \(2009\)](#)
- [F2.2:10] A. Leonide, B. Rüter, A. Weber, W.A. Meulenbergh, and E. Ivers-Tiffée, *Performance Study of Alternative (La,Sr)FeO_{3-δ} and (La,Sr)(Co,Fe)O_{3-δ} MIEC Cathode Compositions*, [ECS Transactions 25, 2487 \(2009\)](#)
- [F2.2:11] * C. Peters, A. Weber, B. Butz, D. Gerthsen, and E. Ivers-Tiffée, *Grain-Size Effects in YSZ Thin-Film Electrolytes*, [J. Am. Ceram. Soc. 92, 2017 \(2009\)](#)
- [F2.2:12] A. Leonide, B. Rüter, A. Weber, W.A. Meulenbergh, and E. Ivers-Tiffée, *Impedance Study of Alternative (La,Sr)FeO_{3-δ} and (La,Sr)(Co,Fe)O_{3-δ} MIEC Cathode Compositions*, [J. Electrochem. Soc. 157, B234 \(2010\)](#)
- [F2.2:13] C. Endler, A. Leonide, A. Weber, F. Tietz, and E. Ivers-Tiffée, *Time-Dependent Electrode Performance Changes in Intermediate Temperature Solid Oxide Fuel Cells*, [J. Electrochem. Soc. 157, B292 \(2010\)](#)
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- [F2.2:15] C. Endler, A. Leonide, B. Rüter, A. Weber, and E. Ivers-Tiffée, *Oxygen Surface Exchange and Bulk Diffusion Coefficients Evaluated from Porous Mixed Ionic-Electronic Conducting Cathodes*, [ECS Transactions 28, 71 \(2010\)](#)
- [F2.2:16] J. Hayd, U. Guntow, and E. Ivers-Tiffée, *Electrochemical performance of nano-scaled La_{0.6}Sr_{0.4}CoO_{3-δ} as intermediate temperature SOFC cathode*, [ECS Transactions 28, 3 \(2010\)](#)

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- [F2.2:18] * L. Dieterle, P. Bockstaller, D. Gerthsen, J. Hayd, E. Ivers Tiffée, and U. Guntow, *Microstructure of Nanoscaled $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ Cathodes for Intermediate-Temperature Solid Oxide Fuel Cells*, [Adv. Energy Mater. **1**, 249 \(2011\)](#)
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- [F2.2:21] * D. Klotz, B. Butz, A. Leonide, J. Hayd, D. Gerthsen, and E. Ivers-Tiffée, *Performance enhancement of SOFC anode through electrochemically induced Ni/YSZ nanostructures*, *J. Electrochem. Soc.* **158**, B587 (2011)
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- [F2.2:23] * L. Dieterle, P. Bockstaller, D. Gerthsen, J. Hayd, E. Ivers-Tiffée, U. Guntow, and C. Kübel, *Microstructure of sol-gel derived nanoscaled $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ cathodes for intermediate-temperature SOFCs*, *ECS Transactions* **35**, 1909 (2011)
- [F2.2:24] E. Ivers-Tiffée, J. Hayd, D. Klotz, A. Leonide, F. Han, and A. Weber, *Performance Analysis and Development Strategies for Solid Oxide Fuel Cells*, *ECS Transactions* **35**, 1965 (2011)
- [F2.2:25] J. Joos, T. Carraro, A. Weber, and E. Ivers-Tiffée, *Reconstruction of porous electrodes by FIB/SEM for detailed microstructure modeling*, *J. Power Sources* **196**, 7302 (2011)
- [F2.2:26] A. Leonide, S. Hansmann, A. Weber, and E. Ivers-Tiffée, *Performance simulation of current/voltage-characteristics for SOFC single cell by means of detailed impedance analysis*, *J. Power Sources* **196**, 7343 (2011)
- [F2.2:27] J. Joos, M. Ender, T. Carraro, A. Weber, and E. Ivers-Tiffée, *Representative volume element size for accurate solid oxide fuel cell cathode reconstructions from focused ion beam tomography data*, *Electrochimica Acta* **82**, 268 (2012)
- [F2.2:28] D. Klotz, J. Szász, A. Weber, and E. Ivers-Tiffée, *Nano-Structuring of SOFC Anodes by Reverse Current Treatment*, *ECS Transactions* **45**, 241 (2012)
- [F2.2:29] T. Carraro, J. Joos, B. Rüger, A. Weber, and E. Ivers-Tiffée, *3D finite element model for reconstructed mixed-conducting cathodes: II. Parameter sensitivity analysis*, *Electrochimica Acta* **77**, 309 (2012)
- [F2.2:30] T. Carraro, J. Joos, B. Rüger, A. Weber, and E. Ivers-Tiffée, *3D finite element model for reconstructed mixed-conducting cathodes: I. Performance quantification*, *Electrochimica Acta* **77**, 315 (2012)
- [F2.2:31] J.-C. Njodzefon, D. Klotz, A. Kromp, A. Weber, and E. Ivers-Tiffée, *Electrochemical Modeling of the Current-Voltage Characteristics of an SOFC in Fuel Cell and Electrolyzer Operation Modes*, *J. Electrochem. Soc.* **160**, F313 (2013)
- [F2.2:32] ‡ J. Hayd, H. Yokokawa, and E. Ivers-Tiffée, *Hetero-Interfaces at Nanoscaled $(\text{La},\text{Sr})\text{CoO}_{3-\delta}$ Thin-Film Cathodes Enhancing Oxygen Surface-Exchange Properties*, *J. Electrochem. Soc.* **160**, F351 (2013)

- [F2.2:33] J. Hayd and E. Ivers-Tiffée, *Detailed Electrochemical Study on Nanoscaled $\text{La}_{0.6}\text{Sr}_{0.4}\text{CoO}_{3-\delta}$ SOFC Thin-Film Cathodes in Dry, Humid and CO_2 -Containing Atmospheres*, J. Electrochem. Soc. **160**, F1197 (2013)
- [F2.2:34] D. Klotz, J.P. Schmidt, A. Weber, and E. Ivers-Tiffée, *Static Performance Model for ASCs with Different Sizes and its Experimental Validation*, ECS Transactions **57**, 2849 (2013)
- [F2.2:35] A. Kromp, H. Geisler, A. Weber, and E. Ivers-Tiffée, *Electrochemical impedance modeling of gas transport and reforming kinetics in reformate fueled solid oxide fuel cell anodes*, Electrochimica Acta **106**, 418 (2013)
- [F2.2:36] * J. Szász, D. Klotz, H. Störmer, D. Gerthsen, and E. Ivers-Tiffée, *Nanostructured Ni/YSZ Anodes: Fabrication and Performance Analysis*, ECS Transactions **57**, 1469 (2013)
- [F2.2:37] A. Weber, S. Dierickx, A. Kromp, and E. Ivers-Tiffée, *Sulfur Poisoning of Anode-Supported SOFCs under Reformate Operation*, Fuel Cells **13**, 487 (2013)
- [F2.2:38] ‡ K. Asano, D. Klotz, J. Hayd, J. Szász, and E. Ivers-Tiffée, *Electrochemical Analysis of Nanoscaled $\text{Ba}_{0.5}\text{Sr}_{0.5}\text{Co}_{0.8}\text{Fe}_{0.2}\text{O}_{3-\delta}$ Thin-film Cathodes*, ECS Transactions **57**, 2065 (2013)
- [F2.2:39] H. Geisler, A. Kromp, S. Hirn, A. Weber, and E. Ivers-Tiffée, *Model Based Interpretation of Coupled Gas Conversion and Diffusion in SOFC-Anodes*, ECS Transactions **57**, 2691 (2013)
- [F2.2:40] H. Geisler, M. Kornely, A. Weber, and E. Ivers-Tiffée, *Enhancing SOFC-Stack Performance by Model-based Adaptation of Cathode Gas Transport Conditions*, ECS Transactions **57**, 2871 (2013)
- [F2.2:41] A. Häffelin, J. Joos, A. Weber, and E. Ivers-Tiffée, *Three-Dimensional Performance Simulation of SOFC Anodes Using FIB-Tomography Reconstructions*, ECS Transactions **57**, 2563 (2013)

Invited Talks at International Conferences

- E. Ivers-Tiffée, *Electrochemical performance of electrolyte and anode supported cells for SOFC: status and potentials*, invited talk, 46th Battery Meeting of Japan, Nagoya/Japan, November 2005
- E. Ivers-Tiffée et al., *Electrochemical performance of electrolyte and anode supported cells for SOFC (Solid Oxide Fuel Cell)*, invited talk, CIMTEC 2006, Acireale/Italy, June 2006
- E. Ivers-Tiffée, *Interface engineering for Solid Oxide Fuel Cells: Potential of Nanoscaled Interface layers*, invited talk, MRS Spring Meeting, San Francisco/USA, April 2007
- E. Ivers-Tiffée, *From Mega- to Milliwatt, from Micro- to Nanostructure: Quo vadis SOFC?*, plenary talk, International Conference on Electroceramics (ICE-2007), Arusha/Tanzania, July 2007
- E. Ivers-Tiffée, *Interface engineering in Solid Oxide Fuel Cells: Potential of nanosized powders and nanolayered structures*, invited talk, 16th International Conference on Solid State Ionics (SSI-16), Shanghai/China, July 2007
- E. Ivers-Tiffée, *Nanoscaled Functional Electrodes for Solid Oxide Fuel Cell Application*, invited talk, International Symposium on Advanced Ceramics and Technologies for Sustainable Energy Applications (ACTSEA-2007), Kenting/Taiwan, November 2007
- E. Ivers-Tiffée, *Nanoscaled Functional Electrodes for Fuel Cell Application*, invited talk, 13th Israel Materials Engineering Conference, Technion, Haifa/Israel, December 2007

- E. Ivers-Tiffée et al., *Potential of nanoscaled cathodes for SOFC application*, invited talk, 49th Battery Symposium, Sakai, Osaka/Japan, November 2008
- E. Ivers-Tiffée et al., *Potential of nanoscaled LSC thin film cathodes: Modelling and experimental verification*, invited talk, 9th International Symposium on Ceramic Materials and Components for Energy and Environmental Applications, Shanghai/China, November 2008
- E. Ivers-Tiffée, *Performance Analysis and Development Strategies for Solid Oxide Fuel Cells*, plenary talk, International Conference on Electroceramics, New Delhi/India, December 2009
- E. Ivers-Tiffée, *Potential of Nanoscaled Cathode Structures for Solid Oxide Fuel Cells*, invited talk, CRC International Symposium on Innovation Driven by Catalysis – past, present, and future, Hokkaido University/Japan, December 2009
- E. Ivers-Tiffée, *Time-dependent Change of Anodic and Cathodic Polarization Losses in IT-SOFC*, invited talk, 78th Meeting of SOFC Society Japan, Kyoto/Japan, December 2009
- E. Ivers-Tiffée, *Performance Analysis and Development Strategies for Solid Oxide Fuel Cells*, invited talk, 3rd International Congress on Ceramics (ICC3), Osaka/Japan, November 2010
- E. Ivers-Tiffée et al., *High-performance nano-scaled MIEC cathodes for Solid Oxide Fuel Cells*, invited talk, E-MRS Spring Meeting 2011, Nice/France, May 2011
- E. Ivers-Tiffée et al., *FIB/SEM Reconstruction and 3D Simulations of SOFC electrodes*, invited talk, MRS Fall Meeting 2011, Boston MA./USA, November 2011
- E. Ivers-Tiffée, *Performance analysis of anode supported cells by impedance modeling and microstructure reconstruction*, invited talk, 87th Meeting of the SOFC Society of Japan, Nagoya/Japan, March 2012
- E. Ivers-Tiffée, *Chemically modified $La_{0.6}Sr_{0.4}CoO_{3-\delta}$ thin-film cathodes with high oxygen surface-exchange properties*, invited talk, 221st Meeting of the Electrochemical Society, Seattle WA./USA, May 2012
- E. Ivers-Tiffée et al., *Impedance Studies and Modelling of Solid Oxide Fuel Cells (SOFC)*, plenary talk, International Workshop on Impedance Spectroscopy, Chemnitz/Germany, September 2012
- E. Ivers-Tiffée, *Nanomaterials in Solid Oxide Fuel Cells: The Key to an Even Better Performance*, invited talk, Gordon Research Conference on Nanomaterials for Applications in Energy Technology, Ventura CA/USA, February 2013
- E. Ivers-Tiffée et al., *3D Analysis and Modeling of Solid Oxide Fuel Cell Cathodes*, invited talk, 142nd TMS Annual Meeting, San Antonio TX/USA, March 2013
- E. Ivers-Tiffée, *Nanostructures and Hetero-Interfaces in Solid Oxide Fuel Cells: The Key to an Even Better Performance*, keynote talk, 19th International Conference on Solid State Ionics SSI-19, Kyoto/Japan, June 2013