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Monographies und book contributions:

1. Salmi, T., Härkönen, M. and **Rihko, L.**, (Ed.), *Katalyysisanasto - Katalysordlista - Vocabulary of Catalysis*, ISBN 951-8983-02-X, Kemian kustannus Oy, Helsinki, 1994.
2. Lappi, M. and **Rihko, L.**, *Unregulated Exhaust Emissions from Engine Vehicles*, ISSN 1235-0605, ISBN 951-38-4903-1, VTT Research Notes 1748, VTT, Espoo (1996)
3. **Struckmann, L.K. (nee Rihko)**, *Equilibrium and Kinetic Studies on Etherification: Reactions of C₅ and C₆ Alkenes with Methanol and Ethanol*, Dissertation, Acta Polytechnica Scandinavica, Chem. Techn. Series No 246, ISBN 952-5148-19-X, ISSN 1239-0518, Finnish Academy of Technology, Espoo, 1997.
4. Kolah, A., **Rihko-Struckmann, L.**, and Sundmacher, K., *Catalytic Distillation Technology Applied to Ether Production*, in *Handbook of Methyl Tertiary Butyl Ether*, Hamid, A. (Ed.), Marcel-Dekker, 2004.
5. **Rihko-Struckmann, L. K.**, Munder, B. Chalakov, L. and Sundmacher, K., *Solid Electrolyte Membrane Reactors*, Chapter 7: *Solid Electrolyte Membrane Reactors*, in *Membrane Reactors*, Seidel-Morgenstern (Ed.), pp. 193-233, Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, 2010.
6. Hertel, C., Heidebrecht, P., **Rihko-Struckmann, L.** and Sundmacher K. "Hydrogen Production from Reformate Gas by a Cyclic Water Gas Shift Reactor" in 18th World Hydrogen Energy Conference 2010 - WHEC 2010 : Parallel Sessions Book 3: *Hydrogen Production Technologies - Part 2 / D. Stolten, T. Grube (Ed.)* Forschungszentrum Jülich GmbH, Zentralbibliothek, Verlag : 2010 ; WHEC, May 16.-21. 2010, Essen; 277, ISBN 978-3-89336-653-8

Publications in international journals:

1. Kivi, J., Krause, O., and **Rihko L.**, *Eetterit bensinikomponentteina (Ether as gasoline components)*, *Kemia-Kemi* 18 (1991) 356-359.
2. **Rihko, L. K.** and Krause, A.O.I., *Reactivity of Isoamylenes with Ethanol*, *Appl. Catal. A* 101 (1993) 283-295.
3. Sundmacher, K., **Rihko, L.K.** and Hoffmann, U., *Classification of Reactive Distillation Processes by Dimensionless Numbers*, *Chem. Eng. Comm.* 127 (1994) 151-167.
4. **Rihko, L.K.**, Linnekoski, J. A., and Krause, A. O. I., *Reaction Equilibria in the Synthesis of 2-Methoxy-2-Methylbutane and 2-Ethoxy-2-Ethylbutane in the Liquid Phase*, *J. Chem. Eng. Data* 39 (1994) 700 -704.
5. **Rihko, L. K.** and Krause, A. O. I., *Kinetics of Heterogeneously Catalyzed tert-Amyl Methyl Ether Reactions in the Liquid Phase*, *Ind. Eng. Chem. Res.* 34 (1995) 1172-1180.
6. **Rihko, L. K.** and Krause, A.O. I., *The Etherification of FCC Light Gasoline with Methanol*.

Ind. Eng. Chem. Res. 35 (1996), 2500-2507.

7. Linnekoski, J. A., Krause, A. O. I and **Rihko, L. K.**, Kinetics of the Heterogeneously Catalyzed Formation of tert-Amyl Ethyl Ether. Ind. Eng. Chem. Res. 36 (1997), 310-316.
8. **Rihko, L. K.**, Kiviranta-Pääkkönen, P. K. and Krause A.O. I., A Kinetic Model for the Etherification of Isoamylenes with Methanol. Ind. Eng. Chem. Res. 36 (1997), 614-621.
9. Kiviranta-Pääkkönen, P., **Struckmann, L.** and Krause A.O.I., Comparison of the Various Kinetic Models of TAME Formation by Simulation and Parameter Estimation, Chem. Eng. Technol. 21(1998) no 4, p. 321-325
10. Kiviranta-Pääkkönen, P. K., **Struckmann, L. K.**, Linnekoski, J. A., Krause, A. O. I., Dehydration of the Alcohol in the Etherification of Isoamylenes with Methanol and Ethanol, Ind. Eng. Chem. Res. 37 (1998) p. 18-24
11. Linnekoski, J. A., Krause, A. O. I., **Struckmann, L. K.**, Etherification and hydration of isoamylenes with ion exchange resin, Appl. Catal. A: General 170 (1998) 117-126
12. Linnekoski, J. A., Kiviranta-Pääkkönen P., Krause, A.O.I., **Rihko-Struckmann, L. K.**, Simultaneous Isomerization and Etherification of Isoamylenes, Ind. Eng. Chem. Res.38 (1999) 4563-4570.
13. **Rihko-Struckmann, L. K.**, Linnekoski, J. A., Krause , A. O. I., Pavlov, O. S., Vapor-Liquid and Chemical Reaction Equilibria in the Synthesis of 2-Methoxy-2-Methylbutane (TAME), J. Chem. Eng. Data 45 (2000)1030-1035.
14. **Rihko-Struckmann, L. K.**, Latostenmaa, P. V., Krause, A. O. I., Interaction between the reaction medium and ion exchange resin catalyst in the etherification of isoamylenes, J. Molec. Catal. A: Chemical 177 (2001) 41- 47.
15. **Rihko-Struckmann L.K.**, Karinen R. S., Krause A. O.I. ,Jakobsson K., Aittamaa J. R., Process configurations for the production of the 2-methoxy-2,4,4-trimethylpentane - a novel gasoline oxygenate, Chem. Eng. Process. 43 (2004) 57-65.
16. Ye, Y., **Rihko-Struckmann, L.**, Munder, B., Rau H., Sundmacher, K., Feasibility of an Electrochemical Membrane Reactor for Partial Oxidation of n-Butane to Maleic Anhydride, Ind. Eng. Chem. Res. 43 (2004) 4551-4558.
17. Suchorski, Y., **Rihko-Struckmann, L.**, Klose, F., Ye, Y., Alandjiyska, M., Sundmacher, K., Weiss, H., Evolution of Oxidation States in Vanadium-based Catalysts under Conventional XPS Conditions, Appl. Surf. Sci. 249 (2005) 231-237.
18. Ye Y. M., **Rihko-Struckmann L.**, Munder, B., Sundmacher, K., Partial oxidation of n-butane in a solid electrolyte membrane reactor: Periodic and steady-state operations Applied Catal. A: Gen. 285 (2005) 86-95.
19. Munder B., Ye Y.M., **Rihko-Struckmann L.**, Sundmacher K., Solid electrolyte membrane reactor for controlled partial oxidation of hydrocarbons: Model and experimental validation, Catal. Today 104 (2005) 138-148.
20. Sundmacher K, **Rihko-Struckmann L. K.**, and Galvita V., Solid electrolyte membrane reactors: Status and trends, Catal. Today 104 (2005): 185-199.
21. Ye Y.M., **Rihko-Struckmann L.**, Munder B. and Sundmacher, K., Partial oxidation of n-butane in a solid electrolyte membrane reactor - Influence of electrochemical oxygen pumping, J. Electrochem. Soc. 153 (2006): D21-D29.

-
22. **Rihko-Struckmann L. K.**, Ye Y, Chalakov L., Suchorski, Y., Weiss, H. and Sundmacher, K., Bulk and surface properties of a VPO catalyst used in an electrochemical membrane reactor: Conductivity-, XRD-, TPO- and XPS-study, *Catal. Lett.* 109 (2006): 89-96.
 23. Suchorski Y., Munder B., Becker S., **Rihko-Struckmann, L.**, Sundmacher, K. and Weiss, H., Variation of the vanadium oxidation state within a VPO catalyst layer in a membrane reactor: XPS mapping and modeling, *Appl. Surf. Sci.* 253 (2007): 5904-5909.
 24. Munder B., **Rihko-Struckmann L.** and Sundmacher, K., Steady-state and forced-periodic operation of solid electrolyte membrane reactors for selective oxidation of n-butane to maleic anhydride *Chem. Eng. Sci.* 62 (2007): 5663-5668 Sp. Issue. ISCRE 19.
 25. Chalakov L., **Rihko-Struckmann L. K.**, Munder B., Rau, H. and Sundmacher, K., Reaction induced current generation by butane oxidation in high temperature electrochemical membrane reactor, *Chem. Eng. J.* 131 (2007): 15-22
 26. Chalakov, L.; **Rihko-Struckmann, L. K.**; Munder, B. and Sundmacher, K., Feasibility Study of the Oxidative Dehydrogenation of Ethane in an Electrochemical Packed-Bed Membrane Reactor, *Ind. Eng. Chem. Res.* 46 (2007) 8665-8673.
 27. Galvita V., **Rihko-Struckmann L. K.**, Sundmacher, K., The CO adsorption on a Fe_2O_3 - $\text{Ce}_{0.5}\text{Zr}_{0.5}\text{O}_2$ catalyst studied by TPD, isotope exchange and FTIR spectroscopy *J. Molec. Catal. A: Chem.* 283 (2008) 43-51.
 28. Galvita, V.; Hempel, T.; Lorenz, H.; **Rihko-Struckmann, L. K.** and Sundmacher, K. Deactivation of Modified Iron Oxide Materials in the Cyclic Water Gas Shift Process for CO-Free Hydrogen Production, *Ind. Eng. Chem. Res.*; 47 (2008) 303-310.
 29. Lu H., **Rihko-Struckmann, L.**, Hanke-Rauschenbach R. and Sundmacher K., Dynamic Behavior of a PEM Fuel Cell during Electrochemical CO Oxidation on a PtRu Anode, Special issue "Hydrogen production for Fuel Cells", *Topics in Catalysis* 51 (2008) 89-97.
 30. Chalakov, **L. Rihko-Struckmann, L.**, Munder, B. and Sundmacher, K., Oxidative Dehydrogenation of Ethane in an Electrochemical Packed-Bed Membrane Reactor: Model and Experimental Validation, *Chem. Eng. J.* 145 (2009) 385-392.
 31. Cui Y., Galvita, V., **Rihko-Struckmann, L.**, Lorenz, H. and Sundmacher, K., Steam reforming of glycerol: The experimental activity of $\text{La}_{1-x}\text{Ce}_x\text{NiO}_3$ catalyst in comparison to the thermodynamic reaction equilibrium, *Appl. Catal. B: Environ.* 90 (2009) 29-37
 32. Lu H., **Rihko-Struckmann, L.**, Hanke-Rauschenbach, R. and K. Sundmacher. Improved electrochemical CO removal via potential oscillations in serially connected PEM fuel cells with PtRu anodes. *Electrochimica Acta*, 54 (2009)1184-1191.
 33. Hanke-Rauschenbach, R., Weinzierl, C., Krasnik, M., **Rihko-Struckmann, L.**, Lu, H., and Sundmacher, K., Operating behaviour and scale-up of an EPROx unit for CO removal in reformat for PEM fuel cell application. *J. Electrochem. Soc.* 156 (2009) B1267-B1275.
 34. **Rihko-Struckmann, L. K.**, Peschel, A., Hanke-Rauschenbach, R. and Sundmacher, K., Energetic Analysis of the Utilisation of Exhaust CO_2 for the Chemical Storage of Renewable Energy, *Ind. Eng. Chem. Res. Sp. Iss. ISCRE-21*, 49 (2010)11073-11078.

35. Datta P., **Rihko-Struckmann, L.** and Sundmacher, K., Influence of molybdenum on the stability of iron oxide materials for hydrogen production with cyclic water gas shift process. *Mater. Chem. and Physics* 129 (2011) 1089-1095.
36. Krewer, U., Vidakovic-Koch, T. and **Rihko-Struckmann, L.**, Electrochemical Oxidation of Carbon-Containing Fuels and Their Dynamics in Low-Temperature Fuel Cells, *Chem. Phys. Chem.* 12 (2011) 2518-2544.
37. Lu, H., **Rihko-Struckmann, L.** and Sundmacher, K., Spontaneous oscillations of cell voltage, power density and anode exit CO concentration in a PEM fuel cell, *Chem. Phys. Phys. Chem.* DOI: 10.1039/c1cp21984g

Contributions in Conferences:

1. Rihko, L.K. Krause, A.O.I. and Plantenga, F. L., Dearomatization of Diesel Components, (oral), 3rd Nordic Symposium on Catalysis, 27.-28. September, 1990, Espoo, Finland.
2. Rihko, L. K. and Krause, A. O. I., Tertiary Ethers as Gasoline Components, (oral), 4th Nordic Symposium on Catalysis, 3.-4. Oktober, 1991, Trondheim, Norwegen.
3. Sundmacher, K., Rihko L. K., and Hoffmann U., Classification of Reactive Distillation Processes by Dimensionless Numbers, (oral) , 11th International Congress of Chemical Engineering (CHISA '93), 29. Aug. - 03. Sep., 1993, Praha, Czech Republic.
4. Rihko L. K. and Krause A. O. I., A Kinetic Model for the Formation of tert-Amyl Methyl Ether in Liquid Phase, (poster), 1st European Congress on Catalysis EUROPACAT-1, 12.-17. September, 1993, Montpellier, Frankreich.
5. Linnekoski, J. A., Rihko, L. K. and Krause, A. O. I., Kinetics of the Formation Reaction of tert-Amyl-Ethyl Ether (poster) 6 th Nordic Symposium on Catalysis, June 1-3, 1994, Denmark.
6. Majander, E., Manninen, M., Aittamaa, J., Eilos, E., Keskinen, K. and Rihko, L. K., Simulation of TAME reactions in a small Lab Scale Reactor Using CFD Combined with Physical Properties and Reaction Kinetics from a Flowsheeting Program, Proceedings of Helsinki Univ. of Technology 2nd Colloquium on Process Simulation, 6.-8. Juni 1995, Espoo, Finland.
7. Linnekoski, J. A., Rihko L. K. and Krause A. O. I., Kinetics of the Formation Reaction of tert-Amyl Ethyl Ether (TAEE), (oral), 2nd European Congress on Catalysis EUROPACAT-II, September 3-8, 1995, Maastricht, the Netherlands.
8. Kiviranta-Pääkkönen, P. K., Rihko L. K., Krause, A. O. I., The effect of initial methanol/isoamylene ratio on the etherification reaction, (poster), 7th Nordic Symposium on Catalysis, June 2-4, 1996, Turku, Finland.
9. Rihko-Struckmann, L. K., Viljava, T.-R., Komulainen, R. S., Krause, A. O. I., Effect of H₂S on the kinetics of Hydrogenation on a Sulfided CoMo/Al₂O₃ Catalyst, (poster), 9th Nordic Symposium on Catalysis, June 4-6, 2000, Stockholm, Sweden.
10. Rihko-Struckmann, L. K., Latostenmaa, P. V. and Krause, A. O. I., Improving the kinetic model for tert-amyl methyl ether synthesis by considering the reaction medium, (oral), 14th International Congress of Chemical and Process Engineering (CHISA 2000), 27. -31. August, 2000, Praha, Czech Republik.
11. Rihko-Struckmann, L.K., R. S. Karinen, K. Jacobsson, A. O. I. Krause and J. R. Aittamaa, The Production of a Novel Oxygenated Gasoline Component, (oral), Europacat V,

2-7 September 2001, Limerick, Ireland.

12. Komulainen R. S., Rihko-Struckmann, L. K., Viljava T.-R., Krause A. O. I., Effect on H₂S on the Kinetics of Oxygen Removal Reactions of Phenol on a Sulfided CoMo/Al₂O₃ Catalyst, (oral), Europacat V, 2-7 September 2001, Limerick, Ireland.
13. Sundmacher, K., Rihko-Struckmann, L., Munder, B. and Ye, Y., Elektrochemische Charakterisierung von Festoxidmembranen für Partial Oxidationsprozesse (oral), DECHEMA-Arbeitsausschuss "Technische Reaktionen", 13-14 January, 2003, Frankfurt am Main, Germany.
14. Rihko-Struckmann, L., Ye, Y., Munder, B., Sundmacher, K., Chalakov, L., Schulz, M. and Rau, H., Kontrollierte Partialoxidation von Butan in einem elektrochemischen Membranreaktor (oral), XXXVI Jahrestreffen Deutsche Katalytiker, 19-21 March 2003, Weimar, Germany.
15. Ye, Y., Rihko-Struckmann, L., Munder, B. and Sundmacher K., Electrochemical Characterization of VPO Catalyst for Butane Partial Oxidation (poster), EuropaCat VI, 31 August - 4 September 2003, Innsbruck, Austria.
16. Munder, B., Rihko-Struckmann, L. Ye, Y. and Sundmacher, K., Electrochemical Membrane Reactor for Controlled Partial Oxidation of Hydrocarbons: Model-based Analysis of Reactor Dynamics (oral), 4th European Congress of Chemical Engineering, 21-25 September 2003, Granada, Spain.
17. Ye, Y., Rihko-Struckmann, L., Munder, B. and Sundmacher, K., Experimental Study on Electrochemical Membrane Reactor for n-Butane Partial Oxidation (oral), 16th International Conference on Chemical Reactors, 1-5 December 2003, Berlin.
18. Rihko-Struckmann, L., Ye, Y., Munder, B., Chalakov, L. and Sundmacher, K., Vanadylpyrophosphatkatalysator (VPO) als Anodenkomponent in elektrochemischen Membranreaktoren, (poster) XXXVII Jahrestreffen Deutsche Katalytiker, 17-19 March 2004, Weimar, Germany.
19. Alandjijska, M., Klose, F., Rihko-Struckmann, L., Suchorski, Y., Sundmacher, K., Weiss, H., and Ye, Y., On the Stability of VPO and VO_x Catalysts under Normal XPS Conditions (Poster), XXXVII. Jahrestreffen Deutscher Katalytiker, 17-19 March 2004, Weimar, Germany.
20. Frömmichen, R., Chalakov, L., Rihko-Struckmann, L., Ye, Y., Munder, B. and Sundmacher, K., Electrochemical Membrane Reactors for Partial Oxidation of Light Hydrocarbons, (poster), 13th International Congress on Catalysis, 11-16 June 2004, Paris, France.
21. Munder, B., Ye, Y., Rihko-Struckmann, L. and Sundmacher, K., Electrochemical Membrane Reactor for controlled partial oxidation of hydrocarbons: Model and Experimental Validation (Oral), 6th International Conference on Catalysis in Membrane Reactors, 6-9 July 2004, Lahnstein, Germany.
22. Ye, Y., Rihko-Struckmann, L., Munder, B. and Sundmacher, K., Conversion and Selectivity Behaviour of an Electrochemical Membrane Process, (Oral), 16th International Congress of Chemical and Process Engineering (CHISA 2004), 22-26 August 2004, Prag, CSFR.
23. Rihko-Struckmann, L., Ye, Y., Chalakov, L., Suchorski, Y., Weiss, H., Sundmacher, K., Charakterisierung von anodischen Vanadylpyrophosphatkatalysatoren (VPO) in elektrochemischen Membranreaktoren (Oral), XXXVIII Jahrestreffen Deutsche Katalytiker, 16-18 March 2005, Weimar, Germany.
24. Suchorski, Y., Rihko-Struckmann, L., Ye, Y., K. Sundmacher, Weiss, H., XPS-Mapping of

a Membrane Reactor Surface: Vanadium Oxidation State Variations, IWSP-2005, Wroclaw, Polen.

25. Ye, Y., Rihko-Struckmann, L., Munder, B. and Sundmacher K., Influence of electrochemical oxygen pumping on the performance of butane partial oxidation to maleic anhydride in a solid electrolyte membrane reactor, (poster) EuropaCat 7, 28 August- 1 September, 2005, Sofia, Bulgaria.
26. Suchorski, Y., Munder, B., Rihko-Struckmann, L., Becker, S., Sundmacher, K. and Weiss H., Distribution of Vanadium Oxidation State within a VPO Catalytic Layer in a Membrane Reactor: 3D XPS Mapping and Modelling (poster) Symp. On Surface Science, 5 - 11 March 2006, St. Christoph am Arlberg, Austria.
27. Chalakov, L., Rihko-Struckmann, L. and Sundmacher, K., Electrocatalytic oxidative dehydrogenation of ethane with a solid electrolyte membrane reactor (Oral), CHISA 2006, 27-31 Aug 2006, Prague, Czech Republic.
28. Suchorski, Y., Munder, B., Rihko-Struckmann, L., Sundmacher, K., Spatial Distribution of Vanadium Oxidation States within a VPO Catalytic Layer in an Electrochemical Membrane Reactor: XPS Mapping and Modelling, ISSHAC-6, The Sixth International Symposium Effects of Surface Heterogeneity in Adsorption and Catalysis on Solids, 28 Aug - 02 Sep 2006, Zakopane, Poland.
29. Munder, B., Rihko-Struckmann, L. and Sundmacher, K., Distributed impedance modeling and analysis of reactions and charge transport in Au-YSZ composite electrodes (oral), 57th Annual Meeting of the International Society of Electrochemistry (ISE), 31 Aug -5 Sep 2006 Edinburgh, GB.
30. Munder, B., Rihko-Struckmann, L. and Sundmacher, K., Analysis of steady-state and forced periodic operation of electrochemical membrane reactors for selective partial oxidation of n-butane to maleic anhydride (oral), 19th International Symposium on Chemical Reaction Engineering, ISCRE 19, September 3 - 6, 2006 Potsdam, Germany.
31. Chalakov, L., Munder, B., Rihko-Struckmann, L. and Sundmacher, K. Feasibility Study of the Oxidative Dehydrogenation of Ethane in an Electrochemical Packed Bed Membrane Reactor (Oral), The 6th International Symposium on Catalysis in Multiphase Reactors (CAMURE-6) and the 5th International Symposium on Multifunctional Reactors (ISMR-5), 14-17 January 2007, Pune, India.
32. Rihko-Struckmann, L. and Sundmacher, K., ProBio: Integrierte Prozesssysteme zur energetischen Nutzung von Biomasse in Brennstoffzellen, DECHEMA Informationstag Biomasse und Brennstoffzellen (Oral), 16 January 2007, Frankfurt am Main, Germany.
33. Rihko-Struckmann, L., Thomas, S., Kusnezoff, M. and K. Sundmacher, Integrated Systems for the Utilization of Biomass in Fuel Cells (poster), German EU Council Presidency, 8-10 May 2007, Leipzig, Germany.
34. Cui, Y., Song, Y., Munder, B., Galvita, V., Rihko-Struckmann, L. and Sundmacher, K., Sustainable Hydrogen Production by Glycerol Steam Reforming (poster) Europacat 8, 26-31 Aug, 2007 Turku, Finland.
35. Galvita, V., Rihko-Struckmann, L., Sundmacher, K. and Hempel, T Deactivation of modified iron oxides during the cyclic water gas shift reaction process for hydrogen production (poster), Europacat 8, 26-31 Aug 2007, Turku, Finland.
36. Lu, H., Rihko-Struckmann, L., Sundmacher, K., CO-Removal in Electrochemical Preferential Oxidation (poster), Europacat 8, 26-31 August 2007, Turku, Finland.

-
37. Rihko-Struckmann, L., Cui, Y., Lu, H. and Sundmacher, K., Biomasse-Konversion zu Wasserstoff: Dampfreformierung von Glycerin an Mischoxid-Katalysatoren (Poster), 41. Jahrestreffen Deutscher Katalytiker, 27-29 Februar 2008, Weimar, Germany.
 38. Hanke-Rauschenbach, R. Weinzierl, C. Rihko-Struckmann, L. and Sundmacher, K., Electrochemical preferential oxidation of CO in a reformat for fuel cell application with coupled oscillating EPrOx reactors (oral). 18th International Congress of Chemical and Process Engineering CHISA, 24-28 August, 2008, Prague, Czech Republic.
 39. Heidebrecht, P., Rihko-Struckmann, L. and Sundmacher, K., Hydrogen Production by a Cyclic Water Gas Shift Reactor (oral) The 20th Int. Symp. Chem. React. Eng. (ISCRE20), 7-10 September, 2008, Kyoto, Japan.
 40. Heidebrecht, P. Rihko-Struckmann, L. and Sundmacher, K., Modellgestützter Entwurf eines zyklischen Wassergas-shiftreaktors zur Reinigung von Wasserstoff (Oral), ProcessNet-Jahrestagung 2008, 7-9 October 2008, Karlsruhe, Germany.
 41. Hanke-Rauschenbach, R. Weinzierl, C. Rihko-Struckmann, L. and Sundmacher, K., Scale-up of an oscillating EPrOx reactor for electrochemical CO removal from reformat gas (Oral), 215th Meeting of the Electrochemical Society, 24-29 May, 2009, San Francisco, USA.
 42. Hanke-Rauschenbach, R., Weinzierl, C., Lu, H., Rihko-Struckmann, L. and Sundmacher, K., EPrOx: Elektrochemische präferentielle Oxidation von CO aus H₂/CO-Gemischen in gekoppelten Membran-Reaktoren (Oral), Jahrestreffen Reaktionstechnik, 8-10 June 2009, Würzburg, Germany.
 43. Rihko-Struckmann, L., Chalakov, L., Munder, B. and Sundmacher, K., Solid Electrolyte Membrane Reactor for the Oxidative Dehydrogenation of Ethane: Experiments and Modeling, 9th International Conference on Catalysis in Membrane Reactors, 28th June -2nd July, 2009, Lyon, France.
 44. Thomas, S., Schotte, E., Herrmann, A., He, L., Sundmacher, K., Rihko-Struckmann, L., Heidebrecht, P., Kumar, V., Datta, P., Hertel, C., Oettel, C. Hartono, B., Kusnezoff, M., Kavurucu-Schubert, S., ProBio: Integrated Process System for the Transformation of Biomass into Electrical Energy by use of Fuel Cells (Poster), 17th European Biomass Conference & Exhibition – From Research to Industry and Markets, 29 June – 3 July 2009, Hamburg, Germany
 45. Rihko-Struckmann, L., Hanke-Rauschenbach, R., Alten, S., Peschel, A. and Sundmacher, K., Bewertung und energetische Analyse der chemischen Speicherung von erneuerbarer Energie durch Reduktion von CO₂ (Poster). ProcessNet-Jahrestagung, 8-10 September, 2009, Mannheim, Germany.
 46. Hertel, C., Heidebrecht, P., Rihko-Struckmann, L. and Sundmacher, K., Hydrogen Production from Reformat Gas by a Cyclic Water Gas Shift Reactor (Poster), WHEC 18th World Hydrogen Energy Conference, 16 – 21 May 2010, Essen, Germany.
 47. Rihko-Struckmann, L., Peschel, A. and Hanke-Rauschenbach, R., Sundmacher, K., Exergetic Analysis of the Utilisation of Exhaust CO₂ for the Chemical Storage of Renewable Energy (Oral), 21st International Symposium on Chemical Reaction Engineering ISCRE 21, 13 – 16 June 2010, Philadelphia, USA
 48. Hanke-Rauschenbach, R., Kirsch, S., Rihko-Struckmann, L. and Sundmacher, K., Electrochemical preferential CO oxidation in CO/H₂ mixtures: Influence of nonlinear pattern formation on selectivity (Poster). 21st International Symposium on Chemical Reaction Engineering (ISCRE 21), 13 – 16 June 2010, Philadelphia,

USA.

49. Rihko-Struckmann, L., Peschel, A. and Sundmacher, K., Energetic and Exergetic Comparison of the Utilization of CO₂ for the Production of Methanol or Methane as a Chemical Storage for Fluctuating Renewable Energy (Oral), *EMRS (Eur. Mat. Res. Society)*, 13 – 17 September 2010, Warsaw, Poland.
50. Oettel, C., Rihko-Struckmann, L. and Sundmacher, K. Impact of Pt-Ru on the CO Tolerance and Dynamic Step Behaviour of the HT-PEMFC (Poster) *HFC 2011 – Hydrogen + Fuel Cells 2011*, 15 – 18 May 2011, Vancouver, BC, Canada.
51. Zinser, A., Rihko-Struckmann, L., Sundmacher, K., Energetic Comparison of the utilization of CO₂ for the production of methanol or methane as a chemical storage for renewable energy. 11th International Conference on Carbon Dioxide Utilization. June 27-30, 2011, Dijon, France.
52. Sundmacher, K., Hanke-Rauschenbach, R., Kirsch, S. and Rihko-Struckmann, L., Dynamics of electrochemical CO oxidation in PEM fuel cells (Invited talk) International Conference on Engineering of Chemical Complexity, 4 – 8 July 2011, Berlin, Germany.

Patent Applications:

- Sundmacher, K., Rihko-Struckmann, L., Munder, B., Rau, H. and Chalakov, L., Einrichtung und Verfahren zur elektrochemischen Partialoxidation von Kohlenwasserstoffen, German Patent Application DE 102 59 072.9, 17 December 2002.