

Publications in the NoCO2 project during the first three years 2003-2005.

Underlining of authors indicate common publications.

Sverige:

Tobias Mattisson, et al., (alla medlemmar i projektet är medförfattare) The Nordic CO2 Sequestration (NoCO2) project, Greenhouse Gas Control Technologies 8, Trondheim 2006.

Zafar, Q., Mattisson, T. and Gevert B, 2005, " Integrated Hydrogen and Power Production with CO2 Capture using Chemical-Looping Reforming – Redox reactivity of particles of CuO, Mn2O3, NiO, Fe2O3 using SiO2 as a support," *Ind. Eng. Chem. Res.*, 44 (2005) 3485-3496.

Rydén, M., and Lyngfelt, A., Using steam reforming to produce hydrogen with carbon dioxide capture by chemical-looping combustion, *Journal of Hydrogen Energy*, in press

Zafar, Q., Mattisson, T. and Gevert B, Redox Investigation of Some Oxides of Transition-State Metals Ni, Cu, Fe, and Mn Supported on SiO2 and MgAl2O4, *Energy & Fuels* (available online)

Magnus Rydén, Anders Lyngfelt, Tobias Mattisson: "Synthesis gas generation by chemical-looping reforming in a continuously operating laboratory reactor", submitted for publication

Mattisson, T., Zafar, Q., Lyngfelt, A. and Gevert, B., 2004, "Integrated hydrogen and power production from natural gas with CO2 capture", 15th World Hydrogen Energy Conference, Yokohama, 27th June-2 July.

Rydén, M., and Lyngfelt, A., Hydrogen and power production with integrated carbon dioxide capture by chemical-looping reforming 7th International Conference on Greenhouse Gas Control Technologies, Vancouver, Canada, 5th-9th September 2004.

Danmark:

J. Gabrielsen, M.L. Michelsen, E.H. Stenby, G.M. Kontogeorgis, A Model for Estimating CO2 Solubility in Aqueous Alkanolamines *Ind. Eng. Chem. Res.* 44 (2005) 3348-3354.

G.K. Folas, J. Gabrielsen, M.L. Michelsen, E.H. Stenby, G.M. Kontogeorgis, Application of the Cubic-Plus-Association (CPA) Equation of State to Cross-Associating Systems *Ind. Eng. Chem. Res.* 44 (2005) 3823-3833.

J. Gabrielsen, M.L. Michelsen, E.H. Stenby, G.M. Kontogeorgis, Modelling of CO2 Absorber Using a Sterically Hindered Alkanolamine Solution (submitted for publication)

Gabrielsen J., Michelsen M.L., Kontogeorgis G.M., and Stenby E.H., CO2 Capture from Coal Fired Power Plants, Dansk Kemiingeniør Konference, Kgs. Lyngby, 24th-26th May 2004

Stenby, E. H., Jessen, K., " Fluid Characterization for Miscible EOR Projects and CO2 Sequestration", IEA/EOR Workshop and Symposium, September 5-8, 2004, Stavanger, Norway

Norge:

Kaggerud, K., "Process Integration Opportunities in the Plastic Waste to Plastic Production Chain" Proceedings konferans PRES'2005 på Sicilia i mai 2005
ble et foredrag holdt (med tilhørende artikkel i Proceedings) med tittel.

Kaggerud, K., "A new Scheme for Plastics Recovery" konferans ECOS'2005 i Trondheim i juni.

Kaggerud, K.H, Bolland, O. and Gundersen, T, "Chemical and Process Integration: Synergies in co-production of Power and Chemicals from Natural Gas with CO2 capture", Keynote, CD-Rom of CHISA 2004 and PRES 2004, Prague, 22-26 August 2004b. (To be published in Applied Thermal Engineering).

Kaggerud, K.H., Gjerset, M., Mejdell, T., Kumakiri, I., Bolland, O. and Bredesen, R., "Power Production with CO₂ Management - Integration of High Temperature CO₂ Selective Membranes in Power Cycles", Proceedings from GHGT-7, Vancouver, 5-9 September 2004c.

Kaggerud, K.H., Sandberg, P., Musdalslien, U.I., Nilsen, H.R. and Leadbitter, J., "A New Concept for Plastic Waste to Plastic Recycling", Proceedings from the 6th European Gasification Conference, Brighton, 10-12 May 2004a.

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M. Mazzotti, J.C. Abanades, R. Allam, K.S. Lackner, F. Meunier, E. Rubin, J.C. Sanchez, K. Yogo, R. Zevenhoven "Mineral carbonation and industrial uses of carbon dioxide" in "IPCC Special report on carbon dioxide capture and storage", Chapter 7, IPCC WG-III Cambridge University Press, (November 2005)

S. Teir, S. Eloneva, C.-J. Fogelholm, R. Zevenhoven "Co-utilization of CO₂ and iron and steel slags by dissolution in acetic acid for precipitated calcium carbonate production" Energy - the International Journal submitted (special issue ECOS'2005)

S. Teir, S. Eloneva, C.-J. Fogelholm, R. Zevenhoven "Reduction of CO₂ emissions by carbonation of iron and steel slags" J. of Cleaner Production submitted

R. Zevenhoven, S. Eloneva, S. Teir "Chemical fixation of CO₂ in carbonates: routes to valuable products and long-term storage" Catalysis Today accepted (text for invited lecture at ICCDU-VIII)

S. Teir, S. Eloneva, C.-J. Fogelholm, R. Zevenhoven "Stability of calcium carbonate and magnesium carbonate in rainwater and nitric acid solutions" Energy Conversion & Management, submitted

S. Teir, S. Eloneva, R. Zevenhoven, "Production of precipitated calcium carbonate from calcium silicates and carbon dioxide" Energy Conversion & Management, 46 (18-19) 2005, 2954-2979

S. Teir, S. Eloneva, R. Zevenhoven "Co-utilisation of CO₂ and calcium-rich wastes for calcium carbonate production", in: Proc. of ECOS'2005, Trondheim (Norway) June 20-23, 2005, S. Kjelstrup et al. (Eds.), ISBN 82-519-2041-8, Vol. 2, 749-756

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I. Kavaliauskaite, M. Uibu, S. Teir, R. Kuusik, R. Zevenhoven, G. Denafas "Carbon dioxide long-term emissions and its storage options in the Baltic Region" Proc. V Int. Conf. on Ecosystems and Sustainable Development. Cadiz, Spain, 3-5 May 2005. p. 439-448 p.

Ron Zevenhoven, Sebastian Teir, Sanni Eloneva, Soile Aatos "Mineral carbonation for long-term storage of carbon dioxide - Results from R&D in Finland" presented at the AGU Fall 2005 meeting, San Francisco (CA), December 5-9, 2005

R. Zevenhoven, S. Teir, S. Eloneva, T. Raiski, I. Kavaliauskaite, S. Aatos, J. Kohlmann, "Storage of CO₂ as carbonates in Finland - the latest results" presented at the 4th Nordic Mini-symposium on CO₂ Capture and Storage, Espoo, Finland, Sept. 8-9, 2005

Sanni Eloneva, Sebastian Teir, Ron Zevenhoven "Carbonation of slags from iron- and steel industry" presented at the 4th Nordic Mini-symposium on CO₂ capture and storage, Espoo, Finland, Sept. 8-9, 2005

Ron Zevenhoven, Sanni Eloneva, Sebastian Teir "Chemical fixation of CO₂ in carbonates: routes to valuable products and long-term storage" invited lecture at the 8th Int. Conf. on Carbon Dioxide Utilisation (ICCDU-VIII), Oslo, June 19-23, 2005

Ron Zevenhoven "CO₂ capture and storage technologies: what can we do in Finland?" presentation at Tekes Climbus seminar, Hyvinkää, Finland, June 7, 2005

Ron Zevenhoven, Sanni Eloneva, Sebastian Teir "Long-term CO₂ storage as mineral carbonates in Finland (including tests in an FB reactor" presented at the 50th IEA FBC meeting, Toronto, Canada, May 22, 2005

Kohlmann J, Zevenhoven R. "Mineral carbonation in Finland - an approach to implementation", presented at the 29th Int. Conf. on Coal Utilization and Fuel Systems, Clearwater (FL), April 2004

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Zevenhoven R, Teir S. "Long term storage of CO₂ as magnesium carbonate in Finland" presented at the Third Annual Conference on Carbon Capture and Sequestration, Alexandria (VA), May 3-6, 2004 (11 p.)

Zevenhoven R. et al. "Storage of CO₂ as mineral carbonates in Finland - latest results", presented at the Third Nordic Minisymposium on Carbon Dioxide Capture and Storage, Trondheim (Norway) October 1-2, 2003

Estonia:

Kavaliauskaite, I., Uibu, M., Teir, S., Kuusik, R., Zevenhoven, R., Denafas, G. "Carbon dioxide long-term emissions and its storage options in the Baltic Region" Proc. V Int. Conf. on Ecosystems and Sustainable Development. Cadiz, Spain, 3-5 May 2005. p. 439-448 p.

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Kuusik R., Uibu M. Põlevkivituha vesisuspensioonid CO₂ sidujana. = Süsinikdioksiidi emissiooni piiramine energiatootmises – suundumused maailmas ja perspektiivid Eestis = Abatement of CO₂ emissions at energy production – trends in the world and prospects in Estonia. – P.51. // XXVIII Eesti Keemiapäevad = 29th Estonian Chemistry Days: Teaduskonv. ettek. teesid = Abstracts of Sci. Conf. Tln., 2005.

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Latvia

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J.Gushcha, D. Blumberga, M. Blumberga. GEOLOGICAL CARBON DIOXIDES (CO₂) SEQUESTRATION - A TOOL FOR EMISSIONS REDUCTION IN LATVIAN ENERGY SECTOR- Scientific Conference of Riga Technical University, Power and Electrical engineering section, RTU, 2005, p.250 .

C. Rochjas, J. Gushcha. MODELLING OF PELLET STOVES FOR DYNAMIC SIMULATION OF SYSTEM AND ESTIMATION OF ENVIRONMENTAL PERFORMANCES- Scientific Conference of Riga Technical University, Power and Electrical engineering section, RTU, 2005, p.258 .

J.Gushcha, D. Blumberga. The research on CO₂ sequestration in Kurzeme region- Conference on Development and implementation of climate change policy, -11.11.2005, Riga.

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I.Kavaliauskaite, G.Denafas, Possible ways for carbon dioxide reduction in Lithuania. International conference „Fourth Nordic Minisymposium on Carbon Dioxide Capture and Storage“, ESPOO (Finland), september 8-9, 2005.

Kavaliauskaite, I., Teir, S., Denafas, G. Zevenhoven, R. "Mineral carbonation for long-term CO₂ storage and Lithuanian mineral resources", poster presentation at the second

Trondheim conference on CO2 capture, transport and storage, Trondheim (Norway), October 25-26, 2004.

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Russia:

Alexander Ilinsky, Alexey Cherepovitsyn. Conceptual Approaches to Kyoto Protocol Market Mechanism Implementation//Proceedings of the 4th Nordic Minisymposium on Carbon Dioxide Capture and Storage, September 8-9, 2005

Alexander Ilinsky, Alexey Cherepovitsyn. Economical and Environmental Evaluation of Kyoto Protocol Options – Prospects of Russia// Mining journal, Moscow, October, 2005

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