



## Utvalgte publikasjoner og foredrag 2004

Rapporter merket \* er kun tilgjengelig etter avtale med oppdragsgiver.

### **HALDENPROSJEKTET: REAKTORBRENSSEL OG MATERIALTEKNOLOGI**

Bennett, P.

In-core ECP measurements in oxygenated water in the Halden Reactor using a palladium reference electrode.  
Halden, 2004. (IFE/HR/E-2004/024)  
International Water Chemistry Conference, San Francisco, LA, 2004-10

Bennett, P., Beverskog, B., Suther, R.

Halden in-reactor test to exhibit PWR axial offset anomaly.  
EPRI (Electric Power Research Institute) Report 1008106, 2004-12.

Bennett, P.

Proposal for a BWR fuel crud test in the Halden reactor.  
Halden, 2004. (IFE/HR/E-2004/018)  
BWR Fuel & Water Chemistry Working Group meeting, Denver, Colo.,  
2004-06-28--06-30

Beverskog, B.

The role of Zinc in LWRs.  
Halden, 2004. (IFE/HR/E-2004/026)  
International Water Chemistry Conference of Nuclear Reactor Systems,  
San Francisco, 2004-10

Karlsen, T.M.

Crack growth of irradiated stainless steels : results from in-pile studies in Halden.  
Halden, 2004. (IFE/HR/E-2004/011)  
ICG-EAC Meeting, Yumebutai, Awaji Island (Japan), 2004-04-19--04-23

Kinoshita, M., Sonoda, T., Kitajima, S., Sasahara, A., Kameyama, T., Matsumura, T., Kolstad, E.

High burnup rim project : (III) properties of rim-structured fuel.  
Halden, 2004. (IFE/HR/E-2004/019)  
International Meeting on LWR Fuel Performance, Orlando, Fla.,  
2004-09-19--09-22

Kolstad, E., Wiesenack, W.

High burnup and safety relevant experiments at Halden.  
Halden, 2004. (IFE/HR/E-2004/014)  
Fuel Safety Research Meeting, Tokyo, 2004-03-01--03-02

Kolstad, E., Wiesenack, W., Grismanovs, V.

LOCA testing at Halden : second in-pile test in IFA-650.2.  
Halden, 2004. (IFE/HR/E-2004/027)  
Nuclear Safety Research Conference, Washington, DC, 2004-10-25--10-27

Lauvstad, G.Ø.

Experiment som utføres i Haldens forskningsreaktor.  
Halden, 2004. (IFE/HR/E-2004/032)  
Kärnteknik 2004, Stockholm, 2004-12-01--12-02

Limbaeck, M., Dahlbaeck, M., Hallstadius, L., Dalene, P.M.,  
Devold, H., Vitanza, C., Wiesenack, W., Jenssen, H.,  
Oberländer, B.C., Matsson, I., Andersson, T.  
Test-reactor study of the phenomena involved in secondary fuel  
degradation.  
Halden, 2004. (IFE/HR/E-2004/025)  
International Meeting on LWR Fuel Performance, Orlando, Fla.,  
2004-09-19--09-22

Thoresen, H.

Instrumentation of experimental fuel and future needs for PIE  
and hot-cell work. HOTLAB Plenary Meeting, Halden,  
2004-09-06--09-08.

Tverberg, T., Kolstad, E.

In-pile measurements related to thermo-physical properties of  
fuel with high burnup structure at the OECD Halden Reactor  
Project.  
Halden, 2004. (IFE/HR/E-2004/007)  
International Workshop on the High Burnup Structure in Nuclear  
Fuels, Karlsruhe, 2004-06-28--06-30

Wiesenack, W.

Overview of the Halden reactor project programme on high  
burnup fuels performance and selected results.  
Halden, 2004. (IFE/HR/E-2004/012)  
KTG-Fachtagung, Karlsruhe, 2004-03-30--03-31

Wiesenack, W., Tverberg, T.

PCMI of high burnup fuel as manifested by different type of  
instrumentation and measurements in the Halden reactor  
experimentale.  
Halden, 2004. (IFE/HR/E-2004/013)  
International Seminar on Pellet-Clad Interaction in Water Reactor  
Fuels, Cadarache (Frankrike), 2004-03-09--03-11

## **HALDENPROSJEKTET: SIKKERHET MENNESKE-TEKNOLOGI-ORGANISASJON.**

Braarud, P.Ø., Laumann, K., Svengren, H.

Task complexity as a factor for human reliability assessment.  
Halden, 2004. (IFE/HR/E-2004/005)  
PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18

Bye, A., Nystad, E., Drøivoldsmo, A.

Function allocation : Which type of methods, When?  
Halden, 2004. (IFE/HR/E-2004/004)  
Cognitive System Engineering in Process Control (CSEPC), Sendai  
(Japan), 2004-11-04--11-05

- Bye, A., Braarud, P.Ø., Smith, C.  
 Improving the empirical basis for human reliability assessment  
 by simulators experiments.  
 Halden, 2004. (IFE/HR/E-2004/006)  
 PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18
- Bye, A.  
 Methods for design of human-automation interaction.  
 Halden, 2004. (IFE/HR/E-2004/008)  
 American Nuclear Society International Topical Meeting on Nuclear  
 Plant Instrumentation, Controls and Human-Machine Interface  
 Technologies, Columbus, OH, 2004-09-19--09-22
- Collier, S., Ludvigsen, J.T., Svengren, H.  
 Human reliability data from simulator experiments : principles and  
 context-sensitive analysis.  
 Halden, 2005. (IFE/HR/E-2005/007)  
 PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18
- Drøivoldsmo, A.  
 New tools and technology for the study of human performance in  
 simulator experiments.  
 Halden, 2004. (HPR-360)
- Exposito, A., Quiroga, J.A., Ibarra, A., Hortal, J., Hulsund, J-E.,  
 Bisio, R., Nilsen, S.  
 An approach to incorporate the operator actions in the  
 simulation of accident sequences.  
 Halden, 2004. (IFE/HR/E-2004/017)  
 International Conference Nuclear Energy for New Europe, Portoroz  
 (Slovenia), 2004-09-06--09-09
- Fantoni, P.F., Gregori, L., Zanetta, G.A.  
 Artificial intelligence techniques for on-line monitoring of  
 fossil power plants.  
 Halden, 2004. (IFE/HR/E-2004/002)  
 Instrumentation and Measuring Technology Conference - IMTC 2004,  
 Como (Italia), 2004-05-18--05-20
- Fantoni, P.F.  
 Experiences and applications of PEANO for on-line monitoring in power  
 Plants  
 Halden, 2005. (IFE/HR/E-2005/011)  
 IAEA Meeting on Increasing Instrument Calibration Interval through On-line  
 Monitoring Technologies, Halden, 2004-09-27-09-29.
- Farbrot, J.E., Nihlwing, Chr., Svengren, H.  
 Human-machine communication.  
 Halden, 2004. (IFE/HR/E-2004/029)  
 Digital Leittechnik und Computereinsatz in KKW-Prozessen, Brugg-  
 Windisch (Sveits), 2004-12-02--12-03
- Gran, B.A., Fredriksen, R., Thunem, A.P-J.  
 An approach for model-based risk assessment.  
 Halden, 2004. (IFE/HR/E-2004/020)  
 Safecomp, Potsdam, 2004  
 I: Computer safety, reliability, and security / Heisel, M.,

Liggesmeyer, P., Wittmann, S. (eds.). - Springer : Berlin-Heidelberg, 2004. - s. 311-324

Gunnarsson, T., Farbrot, J.E.

The control room upgrade in the Oskarshamn 1 Modernization Project Halden, 2005 (IFE/HR/E-2005/010)

American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies , 4. (NPIC&HMIT 2004), Columbus, Ohio, 2004-09-19-09-22.

Hoffmann, M.

On-line calibration monitoring with PEANO.

Halden, 2004. (IFE/HR/E-2004/009)

American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies, Columbus, OH, 2004-09-19--09-22

Hoffmann, M.

PEANO - a tool for on-line calibration monitoring.

Halden, 2005. (IFE/HR/E-2005/009)

IAEA Meeting on Increasing Instrument Calibration Interval through On-line Monitoring Technologies, Halden, 2004-09-27-09-29

Kaarstad, M.

Usability evaluation of the HAMBO alarm system.

Halden, 2004. (IFE/HR/E-2004/028)

Nystad, E., Sebok, A.

A comparison of two presence measures based on experimental results.

Halden, 2004. (IFE/HR/E-2004/023)

Annual International Workshop Presence , 7, Valencia (Spania), 2004-10-13--10-15

Roverso, D., Ruan, D.

Enhancing cross-correlation analysis with artificial neural networks for nuclear power plant feedwater flow measurement. - s. 85-96

Real-time systems. - Vol. 27, no 1 (May 2004).

Also publ as IFE/HR/E-2004/001

Roverso, D., Berg, Ø., Fantoni, P.F., Farbrot, J.E., Hoffman, M., Nilsen, S.R., Porsmyr, J.O., Sunde, S.

Human factors engineering guidance for computerized operator support systems HSI design.

Halden, 2004. (IFE/HR/E-2004/016)

American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies , 4, Columbus, Ohio, 2004-09

Roverso, D.

On-line early fault detection & diagnosis with the ALADDIN transient classifier.

Halden, 2004. (IFE/HR/E-2004/015)

American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies , 4, Columbus, Ohio, 2004-09

Roverso, D.

On-line monitoring systems integration : challenges and prospects.

Halden, 2004. (IFE/HR/E-2004/022)

IAEA Technical Meeting on Increasing Instrument Calibration Interval through On-Line Monitoring Technologies, Halden, Norway, 2004-09-27--09-29

Sebok, A., Nystad, E.

Design and evaluation of virtual reality systems : a process to ensure usability.

Halden, 2004. (IFE/HR/E-2004/003)

The Virtual Reality Design and Evaluation Workshop 2004, Nottingham, 2004-01-22--01-23

Sebok, A., Nystad, E.

Design and evaluation of virtual reality systems : a process to ensure usability.

Halden, 2004. (IFE/HR/E-2004/003)

The Virtual Reality Design and Evaluation Workshop, Nottingham, 2004-01-22--01-23

Sivertsen, T.

Undefinedness vs. underspecification in Halden ASL.

Halden, 2004. (IFE/HR/E-2004/021)

Also publ in Nordic journal of computing. - Vol (2004), s. 12-34

Skjerve, A.B.M., Strand, S., Skraaning Jr., G.

Extended teamwork in nuclear power plants - plans for an explorative study.

Halden, 2004. (IFE/HR/E-2005/002)

American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies, Columbus, Ohio, 2004-09-19--09-22

Skjerve, A.B.M., Rosness, R., Aase, K., Hauge, S., Hovden, J.

Human and organizational contributions to safety defences in offshore oil production.

Halden, 2005. (IFE/HR/E-2005/001)

PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18

Skjerve, A.B.M., Skraaning, G. Jr.

The quality of human-automation cooperation in human-system interface for nuclear power plants. - s. 649-677

International journal of human-computer studies. - Vol. 61 (2004)

Skraaning Jr., G., Braarud, P.Ø., Heimdal, J.

A calibration approach to integrated system validation

Halden, 2004. (IFE/HR/E-2005/008)

American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies, Columbus, Ohio, 2004-09-19--09-22

Skraaning Jr., G.

Experimental control versus realism - methodological solutions

for simulator studies in complex operating environments.  
Halden, 2004. (HPR-361)  
Reprint of dr-philos. thesis

Sunde, S., Banati, J.

Improved identification of gross errors in a residual-heat removal system by robust data-reconciliation.  
Halden, 2005 (IFE/HR/E-2005/013)  
IAEA Meeting on Increasing Instrument Calibration Interval through On-line Calibration Technology, Halden, 2004-09-27--09-29

Thunem, A. P-J.

A framework for dependable development process of complex computerised systems.  
Halden, 2004. (IFE/HR/E-2004/034)  
PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18

Thunem, A. P-J., Fredriksen, R., Gran, B.A.

An information retrieval terminology for model-based risk assessment.  
Halden, 2004. (IFE/HR/E-2004/030)  
PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18

Thunem, A. P-J.

Computerised systems' availability, safety and security research at the OECD Halden Reactor Project.  
Halden, 2004. (IFE/HR/E-2004/035)  
American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Controls and Human-Machine Interface Technologies , 4, Columbus, Ohio, 2004-09-19--09-22

Thunem, H. P-J., Thunem, A. P-J.

Fault detection in real-time software systems using neuro-fuzzy tools for signal validation and diagnosis.  
Halden, 2004. (IFE/HR/E-2004/033)  
PSAM 7-ESREL '04 International Conference, Berlin, 2004-06-14--06-18

Øwre, F., Andresen, G., Drøivoldsmo, A., Førdestrømmen, N., Nielwing, C., Svengren, H., Veland, Ø.

Status and further plans for the Halden MMS activities.  
Halden, 2004. (IFE/HR/E-2004/010)  
International Conference on Nuclear Thermal Hydraulics, Operations and Safety , 6, Nara (Japan), 2004-10-04--10-08

## **RESERVOARTEKNOLOGI, PETROLEUMSTEKNOLOGI, TRACERTEKNOLOGI**

Bjørnstad, T.

Industrial radionuclide generators - status and perspectives.  
Tracer 3 - Conference on Tracers and Tracing Methods, Ciechocinek (Polen), 2004-06-22--06-24.

Bjørnstad, T.

International Atomic Energy Agency (IAEA) programs on tracer technology. Statoil Tracer Workshop, Bergen, 2004-11-08.

Bjørnstad, T.

Radiolabelled metal complexes as possible interwell water tracers. IAEA Research Co-ordination Meeting on Validation of Tracers and Software for Interwell Investigations, 1, Wien, 2004-11-16--11-19.

Bjørnstad, T.

The role of radiotracers in petroleum production. Tracer 3 - Conference on Tracers and Tracing Methods, Ciechocinek (Polen), 2004-06-22--06-24.

Bjørnstad, T.

Tracer technology principles, - what is a tracer and what is tracing? IAEA Technical Meeting on Interwell Tracer Technology, Kuwait, 2004-07-16--07-22.

Dugstad, Ø.

Tracer applications for the petroleum industry. Statoil Tracer Workshop, Bergen, 2004-11-08.

Galdiga, C., Bjørnstad, T.

Molecular imprinting, a valuable tool for tracer analysis? Tracer 3 - Conference on Tracers and Tracing Methods, Ciechocinek (Polen), 2004-06-22--06-24.  
Abstract

Haugan, A., Hassfjell, S., Finborud, A.

Online measurements of liquid carry-over from scrubbers using radioactive tracers. Tracer 3 - Conference on Tracers and Tracing Methods, Ciechocinek (Polen), 2004-06-22--06-24.

Kruger, H., Huseby, O., Nordtvedt, J.-E.

Adaptive multiscale estimation of permeability using pressure and tracer.  
Bergen : Universitetet i Bergen, 2004.  
(Scientific Technical Report , 2004-01)

Muller, J.

Breakthroughs needed on novel storage systems. European Hydrogen and Fuel Cell Technology Platform, First General Assembly, Brussels, 2004-01.

Muller, J., Saucier, A., Khue, P.N., Huseby, O.

Generalized multifractal analysis as a tool for characterization of geological formations. Fractal 2004 - Complexity and Fractals in Nature, International Multidisciplinary Conference , 8, Vancouver (Canada), 2004-04-04--04-07.

\*Sagen, J., Brendsdal, E.

ARISSTON -a black oil near well model including a model for inhibitor squeeze treatment and scale prediction. Kjeller, 2004. (IFE/KR/F-2004/022)

\*Sagen, J., Holm, E.

Coupling of the near well model Arisston to OPUS : a pre-project for Norsk Hydro.

Kjeller, 2004. (IFE/KR/F-2004/140)

Stamatakis, E., Haugan, A., Chatzichristos, C., Stubos, A., Muller, J., Dugstad, Ø.

Study of calcium carbonate precipitation in the near-well region using  $^{47}\text{Ca}^{2+}$  as tracer. SPE International Symposium on Oilfield Scale. Exploring the Boundaries of Scale Control , 6, Aberdeen, 2004-05-26--05-27.

## MILJØTEKNOLOGI

Amundsen, H.E.F., Steele, A., Fogel, M., Kihle, J., Schweizer, M., Toporski, J., Treiman, A.H.

Life in a Mars analog : microbial activity associated with carbonate cemented lava breccias from NW Spitsbergen.

Lunar and Planetary Science Conference , 35, League City, Tex., 2004-03-15--03-19.

Andresen, B.

Mineral sequestration of  $\text{CO}_2$  : reduced cost for  $\text{CO}_2$  immobilization and increased value for mineral resources.

International Workshop on In-situ Carbon Dioxide Removal Gasification, AIST, Tokyo, 2004-09-20--09-22.

Johansen, H., Ramstad, K., Rein, E.

Petroleum migration in the Mid Norwegian Continental Shelf : constraints from PVT and chemical properties of reservoir fluids and fluid inclusions. International Oil Field Chemistry Symposium , 15, Geilo, 2004-03-28--03-31.

Meyer, J., Yi, K.B.

Future energy plants - co-production of electrical power and hydrogen from natural gas with integrated  $\text{CO}_2$ -capture.

International Workshop on In-situ Carbon Dioxide Removal Gasification, AIST, Tokyo, 2004-09-20--09-22.

Meyer, J., Eriksen, D.Ø., Johnsen, K.A., Yi, K.B.

Zero emission gas power (ZEG). Hydrogen production by sorption enhanced steam reforming. Trondheim Conference on  $\text{CO}_2$  capture, transport and storage , 2, Trondheim, 2004-10-25--10-26.

Munz, I.A., Wangen, M., Johansen, P.E.

Petroleum migration in the Mid Norwegian Continental Shelf : constraints from PVT and chemical properties of reservoir fluids and fluid inclusions. Norwegian Meeting on Organic Geochemistry , 9, Trondheim, 2004-09-23--09-24.

Munz, I.A., Wangen, M., Girard, J.-P., Lacharpagne, J.-C., Johansen, H.

Pressure-temperature-time-composition (P-T-t-X) constraints of

multiple petroleum charges in the Hild field, Norwegian North Sea. - s. 1043-1060  
Marine and petroleum geology. - Vol. 21 (2004)

Rein, E., Johansen, H., Ramstad, K.  
Applications of natural water tracers in formation water monitoring. Norwegian Meeting on Organic Geochemistry , 9, Trondheim, 2004-09-23--09-24.

Schmitz, B., Peucker-Ehrenbrink, B., Heilmann-Clausen, C., Åberg, G., Asaro, F., Lee, C.-T. A.  
Basaltic explosive volcanism, but no comet impact, at the Paleocene-Eocene boundary: high-resolution chemical and isotopic records from Egypt, Spain and Denmark. - s. 1-17  
Earth and planetary science letters. - Vol. 225 (2004)

Wangen, M., Munz, I.A.  
Formation of quartz veins by local dissolution and transport of silica. - s. 179-192  
Chemical geology. - Vol. 209 (2004)  
Also published as IFE/KR/E-2004/002

Wangen, M., Throndsen, T.  
Sensitivity in the vitrinite reflectance on the past heat flow. Norwegian Meeting on Organic Geochemistry , 9, Trondheim, 2004-09-23--09-24.

Åberg, G.  
Tracing the origin of food with natural isotopes. Conference of the Indian Society for Mass Spectrometry , 11. Workshop on Mass Spectrometry, Shimla (India), 2004-10-07-10-12.

Åberg, G., Abrahamsen, G., Steinnes, E., Hjelmseth, H.  
Utilization of bark pockets as time capsules of atmospheric-lead pollution in Norway. - s. 6231-6237  
Atmospheric environment. - Vol. 38 (2004)

## **PROSESS- OG STRØMNINGSTEKNOLOGI**

Drezet, J.-M., Ludwig, O., M'Hamdi, M., Fjær, H.G., Martin, C.L.  
FEM modeling of the compressibility of partially solidified Al-Cu alloys : comparison with a drained compression test. Light Metals 2004, Hamilton, Ontario, 2004-08-22--08-25.

Furu, T., Johansen, A., Sæter, J.A., Dons, A.L., Pedersen, K., Berstad, T., Lademo, O.-G., Holmedal, B., Marthinsen, K., Hopperstad, O.St., Nes, E., Mortensen, D.  
Through process modeling of extrusion : evolution in microstructure and mechanical properties through the whole process chain from as cast and homogenized condition to forming of profiles. - s. 707-715  
Aluminium. - Vol. 80, no. 6 (June 2004)

- Ludwig, O., Martin, C.L., Suery, M., Drezet, J.-M., Grasso, P.-D., Commet, B., Fjær, H.G., M'Hamdi, M.  
Rheological behaviour of partially solidified Al-Cu alloys : experiments and modelling. - s. 624-628  
Aluminium. - Vol. 80, no. 6 (June 2004)
- M'Hamdi, M., Fjær, H.G., Mo, A., Mortensen, D., Benum, S.  
A new two-phase thermo-mechanical model and its application to the study of hot tearing formation during the start-up phase of DC cast ingots. TMS Annual Meeting & Exhibition, Charlotte, NC, 2004-03-14--03-18.
- Myhr, O.R., Grong, Ø., Fjær, H.G., Marioara, C.D.  
Modelling of the microstructure and strength evolution in Al-Mg-Si alloys during multistage thermal processing. - s. 4997-5008  
Acta Materialia. - Vol. 52 (2004)
- Shea, R.H., Eidsmoen, H., Nordsveen, M., Rasmussen, J., Zheng Gang Xu, Nossen, J.  
Slug frequency prediction method comparison. North American Conference on Multiphase Technology , 4., Banff (Canada), 2004.

## **MATERIAL- OG KORROSJONSTEKNOLOGI**

- Dugstad, A., Kvarekvål, J., Nyborg, R.  
Corrosion prediction tools for oil and gas pipelines : reliability, limitations and challenges. Middle East Corrosion Conference , 10, Bahrain, 2004-03-07--03-10.
- Dugstad, A., Seiersten, M.  
pH-stabilisation, a reliable method for corrosion control of wet gas pipelines. International Symposium on Oilfield Corrosion , 1, Aberdeen, 2004-05-28.
- Gulbrandsen, E., Kvarekvål, J.  
Effect of oil-in-water emulsions on the performance of CO<sub>2</sub> corrosion inhibitors. Corrosion 2004, New Orleans, La., 2004-03-28--04-01.  
Paper no. 04365
- Knag, M., Sjøblom, J., Øye, G., Gulbrandsen, E.  
A quartz crystal microbalance study of the adsorption of quaternary ammonium derivatives on iron and cementite. - s. 269-278  
Colloids and surfaces A: Physicochemical and engineering aspects. - Vol. 250 (2004)
- Kongshaug, K.O., Seiersten, M.  
Baseline experiments for the modelling of corrosion at high CO<sub>2</sub> pressure. Corrosion 2004, New Orleans, La., 2004-03-28--04-01.  
Paper no. 04630

Kvarekvål, J., Dugstad, A.

Corrosion-mitigating properties of iron sulfide corrosion films. Middle East Corrosion Conference , 10, Bahrain, 2004-03-07--03-10.

Kvarekvål, J., Dugstad, A.

Pitting corrosion mechanisms on carbon steel in sour glycol/water mixtures. Corrosion 2004, New Orleans, La., 2004-03-28--04-01. Paper no. 04737

Nyborg, R., Dugstad, A.

Reliability and limitations of corrosion prediction tools for oil and gas pipelines. EUROCORR 2004, Nice, 2004-09-13--09-16. Paper no. 13-O-499

Queen, D., Lee, Chi-Ming, Palmer, J., Gulbrandsen, E.

Guidelines for the prevention, control and monitoring of preferential weld corrosion of ferritic steels in wet hydrocarbon production systems containing CO<sub>2</sub>. International Symposium on Oilfield Corrosion , 1, Aberdeen, 2004-05-28.

## **EFFEKTIV ENERGIBRUK OG ENERGIØKONOMISERING. FORNYBAR ENERGI**

Bendiksen, K.

Energy and climate realities : climate change beyond Kyoto. World Energy Congress, Sydney, 2004-09-05-09-09.

Bendiksen, K.

Hydrogen, the energy carrier of the future? Global Energy Foresight, internasjonalt NTVA seminar, Stavanger, 2004-05-26-05-27.

Bentzen, A., Svensson, B.G., Holt, A.

Enhanced phosphorus diffusion at microstructural defects in multicrystalline silicon. International Photovoltaic Science and Engineering Conference , 14, Bangkok, 2004.

Bentzen, A., Menon, C., Radamson, H.H.

Mechanisms of diffusion-enhanced thermal stability of Si/Si<sub>1-x</sub>Ge<sub>x</sub>/Si heterostructures grown by chemical vapor deposition. - s. 22-29  
Journal of crystal growth. - Vol. 261, no 1 (Jan 15, 2004)

Bentzen, A., Marstein, E.S., Kopecek, R., Holt, A.

Phosphorus diffusion and gettering in multi-crystalline silicon solar cell processing. European Photovoltaic Solar Energy Conference , 19, Paris, 2004-06-07--06-11.

Eriksen, J., Gløckner, R., Yartys, V.A., Sigfusson, T.I., Hafsteinsson, B.T.

Experimental investigation and modelling of thermoelectric

generators for use in hydrogen based energy systems.  
Renewables 2004 - International Conference on New  
and Renewable Energy Technologies for Sustainable Development,  
Evora (Portugal), 2004-06-28--07-01.

- \*Gløckner, R., Miland, H., Vie, P.J.S., Ulleberg, Ø.  
Control strategies for renewable energy based hydrogen energy  
systems : a report for the sub-project: "Integrated hydrogen  
systems" in the KMB-project "Storage of hydrogen in solids -  
from synthesis to system" funded by the Research Council of  
Norway.  
Kjeller, 2004. (IFE/KR/F-2004/125)
- Johannessen, J.C., Seyffarth, T.  
Pyrolysis of wood with microwave heating. Annual  
Microwave Symposium , 38, Toronto, 2004-07-14--07-16.
- Knauer, A., Skomedal, N.  
Target design blade loads from complex terrain winds.  
DEWEK 2004 - German Wind Energy Conference , 7,  
Wilhelmshaven (Tyskland), 2004-10-07--10-10.
- Lototsky, M.V., Yartys, V.A., Klochko, Ye.V., Borisko, N.V.,  
Azhazha, V.M., Vyugov, P.N.  
Application of Zr-V hydrogen getters in vacuum plasma devices.  
I. Phase-structural and hydrogen sorption characteristics.  
International Symposium on Metal Hydrogen Systems,  
Krakow (Polen), 2004-09-05--09-10.
- Lototsky, M.V., Yartys, V.A., Zavaliy, I.Yu.  
Vanadium-based BCC alloys : phase-structural characteristics  
and hydrogen sorption properties. International  
Symposium on Metal Hydrogen Systems, Krakow (Polen),  
2004-09-05--09-10.
- Mæhlen, J.P., Yartys, V.A., Hauback, B.C., Riabov, A.B.  
D-blocking effects and crystal structures of the yttrium  
silicide carbide deuteride  $Y_5Si_3C_{0.2}D_{2.0}$ .  
International Symposium on Metal Hydrogen Systems, Krakow  
(Polen), 2004-09-06--09-10.
- Mæhlen, J.P., Stange, M., Yartys, V.A., Delaplane, R.G.  
Hydrogen assisted order-disorder transformations in Cu-Sn  
sublattices of the (La,Ce)CuSn-D<sub>2</sub> systems.  
International Symposium on Metal Hydrogen Systems, Krakow  
(Polen), 2004-09-05--09-10.
- Riabov, A.B., Denys, R.V., Sato, M., Delaplane, R.G., Yartys,  
V.A.  
Hydrogenation and crystal structures of the Nd(Ni<sub>1-x</sub>Cu<sub>x</sub>)In<sub>1-y</sub>  
Al<sub>y</sub>) intermetallics and their hydrides.  
International Symposium on Metal Hydrogen Systems, Krakow  
(Polen), 2004-09-05--09-10.
- Risberg, T., Horntvedt, B., Madland, B., Madland, D.,  
Nordtvedt, S.R.  
Process dynamics in an industrial prototype compression/absorp-

- tion heat pump. IIR Gustav Lorentzen Natural Working Fluids Conference , 6, Glasgow, 2004-08-29--09-01.
- Rosenberg, E., Espegren, K.A.  
Energy efficiency in Norway 1990-2002 : monitoring tools for energy efficiency in Europe -the Odyssee and MURE projects. Kjeller, 2004. (IFE/KR/E-2004/001)
- Sato, M., Yartys, V.A..  
Hydrogen absorption-desorption characteristics of the LaNi<sub>5</sub>Sn intermetallic compound. - s. 161-166  
Journal of alloys and compounds. - Vol. 373, no 1/2 (30. Jun 2004)
- Sato, M., Denys, R.V., Riabov, A.B., Delaplane, R.G., Yartys, V.A.  
Structural and thermodynamic aspects of hydrogen interaction with NdNiIn-based Cu- and Al-substituted compounds. World Hydrogen Energy Conference , 15, Yokohama, 2004-06-27--07-02.
- Sato, M., Denys, R.V., Riabov, A.B., Yartys, V.A.  
Thermodynamic characteristics of the Al- and Cu-doped NdNiIn hydrides. International Symposium on Metal Hydrogen Systems, Krakow (Polen), 2004-09-05--09-10.
- Sato, M., Yartys, V.A.  
Thermodynamic properties of the NdNi<sub>5</sub>Sn-H system. - s. 171-175  
Journal of alloys and compounds. - Vol. 379 (2004)
- Sato, M., Stange, M., Yartys, V.A.  
Thermodynamic properties of the RNi<sub>5</sub>Sn (R=La, Nd) - H systems. World Hydrogen Energy Conference , 15, Yokohama, 2004-06-27--07-02.
- Singh, R.K., Gupta, B.K., Lototsky, M.V., Srivastava, O.N.  
On the synthesis and hydrogenation behaviour of MmNi<sub>5-x</sub> Fe<sub>x</sub> alloys and computer simulation of their P-C-T curves. - s. 208-213  
Journal of alloys and compounds. - Vol. 373 (2004)
- Spataru, T., Principi, G., Kuncser, V., Keune, W., Yartys, V.A.  
Mössbauer study of the RENiSnD (RE: Pr, Nd) monodeuterides. - s. 81-85  
Journal of alloys and compounds. - Vol. 366 (2004)
- Stange, M., Paul-Boncour, V., Latroche, M., Percheron-Guegan, A., Isnard, O., Yartys, V.A  
Ce-valence state and hydrogen-induced volume effects in Ce-based intermetallic compounds and their hydrides. International Symposium on Metal Hydrogen Systems, Krakow (Polen), 2004-09-05--09-10.

- Stange, M., Kolomiets, A.V., Yartys, V.A., delaplane, R.G., Rundløf, H.  
 Crystal structure and thermal desorption properties of  $\text{HoNiAlD}_{1.2}$ . - s. 115-120  
 Journal of alloys and compounds. - Vol. 384, no. 1-2 (2004)
- Stange, M., Mæhlen, J.P., van Beek, W., Emerich, H., Delaplane, R., Yartys, V.A.  
 In situ powder diffraction studies of intermetallic hydrides. International Symposium on Metal Hydrogen Systems, Krakow (Polen), 2004-09-06--09-10.
- Stange, M., Mæhlen, J.P., Yartys, V.A., Norby, P., van Beek, W., Emerich, H.  
 In situ SR-XRD studies of hydrogen absorption-desorption in  $\text{LaNi}_{4.7}\text{Sn}_{0.3}$ . International Symposium on Metal Hydrogen Systems, Krakow (Polen), 2004-09-05--09-10.
- Stange, M., Mæhlen, J.P., Yartys, V.A., Norby, P., van Beek, W., Emerich, H.  
 In situ SR-XRD studies of hydrogen absorption-desorption in  $\text{LaNi}_{4.7}\text{Sn}_{0.3}$ . World Hydrogen Energy Conference , 15, Yokohama, 2004-06-27--07-02.
- Ulleberg, Ø.  
 The importance of control strategies in PV-hydrogen systems. - s. 323-329  
 Solar energy. - Vol. 76 no. 1/3 (Jan/March 2004)
- Yartys, V.A., Lototsky, M.V.  
 An overview of hydrogen storage methods.  
 I: Hydrogen Materials Science and Chemistry of Carbon Nanomaterials : proceedings of the NATO Advanced Research Workshop, held in Sudak, Crimea, Ukraine, September 14-20, 2003 / Veziroglu, T.N., Zaginaichenko, S.Y., Schur, D.V., Baranowski, B., Shpak, A.P., Skorokhod, V.V. (Eds.). - Dordrecht : Kluwer Academic, 2004. - ISBN 1-4020-2668-4
- Yartys, V.A., Riabov, A.B., Denys, R.V., Sato, M., Delaplane, R.G.  
 Novel intermetallic hydrides. Rare Earth, Nara (Japan), 2004-11-07--11-12.
- Yartys, V.A.  
 Structural chemistry of ternary intermetallic hydrides. International Symposium on Metal Hydrogen Systems, Krakow (Polen), 2004-09-06--09-10.

## METALLURGI

Jenssen, H.K., Blanc, J.Y., Dubuisson, P., Manzel, R., Egorov, A.A., Golovanov, V., Souslov, D.  
IAEA post irradiation facilities database. HOTLAB  
Plenary Meeting, Halden, 2004-09-06--09-08.

Jenssen, H.K., Oberländer, B.C., Sobieska, M., Espeland, M.  
Post irradiation examination of two high burnup UO<sub>2</sub> fuel rods, with and without gadolinia, irradiated in IFA-515.  
Enlarged Halden Programme Group Meeting, Sandefjord, 2004-05-09--05-14.

Kleemann, H.-J., Oberländer, B.C.  
Re-fabrication and instrumentation : resume and outlook.  
HOTLAB Plenary Meeting, Halden, 2004-09-06--09-08.

Oberländer, B.C., Jenssen, H.K., Espeland, M.  
Post irradiation examination of fuel rod 1 from the LOCA experiment IFA-650.1. Enlarged Halden Programme Group Meeting, Sandefjord, 2004-05-09--05-14.

Oberländer, B.C., Sobieska, M., Espeland, M., Jenssen, H.K.  
Post irradiation examination of two MOX fuel rods re-irradiated in IFA-648/629.3. Enlarged Halden Programme Group Meeting, Sandefjord, 2004-05-09--05-14.

## GRUNNFORSKNING I FYSIKK

Andrei, C.M., Botton, G.A., Walmsley, J., Brinks, H.W., Holmestad, R., Hauback, B.C.  
Electron microscopy studies of alanates with Ti based additives. International Symposium on Metal Hydrogen Systems, Krakow, 2004-09-06--09-10.

Birkedal, H., Madsen, D., Matrussen, R., Knudsen, K.D., Weber, H.-P., Pattison, P., Schwarzenbach, D.  
The charge density of urea from synchrotron diffraction data. - s. 371-381  
Acta crystallographica. Section A. - Vol. 60 (2004)

Blanchard, D., Hauback, B.C.  
Alanates for hydrogen storage in mobile applications. Energy Marie Curie Fellowship Conference , 14, Freiburg-Stuttgart, 2004-10.

Blanchard, D., Brinks, H.W., Hauback, B.C., Norby, P.  
Desorption of LiAlH<sub>4</sub> with Ti- and V-based additives. - s. 54-59  
Materials science and engineering B. - Vol. 108, no 1/2 (Apr 25 2004)

Blanchard, D., Brinks, H.W., Hauback, B.C., Nordby, P.  
Isothermal decomposition of LiAlD<sub>4</sub> with and without additives.

International Symposium on Metal Hydrogen Systems,  
Krakow, 2004-09-06--09-10.

- Brinks, H.W., Hauback, B.C., Blanchard, D., Jensen, C.M.,  
Fichtner, M., Fjellvåg, H.  
Diffraction studies of alanates.  
I: Advanced materials for energy conversion II. - Warrendale,  
PA : The Minerals, Metals & Materials Society, 2004. - ISBN  
0-87339-574-3, s. 197-204
- Brinks, H.W., Hauback, B.C., Jensen, C.M., Blanchard, D.  
Diffraction studies of alanates. Meeting on New  
Metal Hydrides for Hydrogen Storage, Finse, 2004-05.
- Brinks, H.W., Hauback, B.C.  
Diffraction studies of the additives in alanates.  
New Metal Hydrides for Hydrogen Storage. Meeting, Vilnius  
(Litauen), 2004-11.
- Brinks, H.W., Hauback, B.C., Blanchard, D., Jensen, C.M.  
Structural studies of the additives in alanates.  
ASM Materials Solution Conference, Columbus, Ohio, 2004-10-18-  
-10-21.
- Brinks, H.W., Hauback, B.C.  
Studies of light complex hydrides. Norwegian  
Hydrogen Seminar, Kvitfjell, 2004-11.
- Brinks, H.W., Blanchard, D., Fossdal, A., Hauback, B.C., Muller,  
J.  
Study of alanates - the most promising hydrogen-storage  
material. NANOMAT konferansen, Oslo, 2004-06-03--  
06-04.
- Brinks, H.W., Jensen, C.M., Srinivasan, S.S., Hauback, B.C.,  
Blanchard, D., Murphy, K.  
Synchrotron X-ray and neutron diffraction studies of  $\text{NaAlH}_4$   
containing Ti additives. - s. 215-221  
Journal of alloys and compounds. - Vol. 376, no 1/2 (Aug 11,  
2004)
- Brinks, H.W.  
Synthesis and crystal structure of  $\text{TbNiGeD}_{1.8}$ . - s. 72-76  
Journal of alloys and compounds. - Vol. 379 (2004)
- Bu, H., Kjøniksen, A.-L., Knudsen, K.D., Nystrom, B.  
Rheological and structural properties of aqueous alginate  
during gelation via the Ugi multicomponent condensation  
reaction. - s. 610-617  
Biomacromolecules. - Vol. 5 (2004)
- Cernak, J., Helgesen, G., Skjeltop, A.T.  
Aggregation dynamics of non-magnetic particles in a ferrofluid.  
Physical review E. - Vol.70 (2004), art. no. 031504
- Charbonnier, J., Rango de, P., Fruchart, D., Miraglia, S.,  
Hauback, B.C., Pitt, M.P., Rivoirard, S., Skryabina, N.

- A neutron diffraction study of bcc-H systems.  
International Symposium on Metal Hydrogen Systems, Krakow,  
2004-09-06--09-10.
- Charbonnier, J., Rango de, P., Fruchart, D., Hauback, B.C.,  
Miraglia, S., Pitt, M.P., Rivoirard, S., Skryabina, N.  
Neutron diffraction analysis of  $ZrCr_{0.7}Ni_{0.3}D_x$  and related  
materials. International Symposium on Metal  
Hydrogen Systems, Krakow, 2004-09-06--09-10.
- Charbonnier, J., Rango de, P., Fruchart, D., Miraglia, S., Huot,  
J., Hauback, B.C., Pitt, M.P., Rivoirard, S., Skryabina, N.  
Structural analysis of activated  $Mg(M)H_2$ .  
International Symposium on Metal Hydrogen Systems, Krakow,  
2004-09-06--09-10.
- Fossdal, A., Brinks, H.W., Hauback, B.C., Fichtner, M.  
Crystal structure and in-situ thermal decomposition studies of  
magnesium alanate. Meeting on New Metal Hydrides  
for Hydrogen Storage, Finse, 2004-05.
- Fossdal, A., Brinks, H.W., Fonnelløp, J.E., Hauback, B.C.  
Crystal structure and thermodynamics of  $Na_2LiAlD_6$ .  
New Metal Hydrides for Hydrogen Storage. Meeting, Vilnius  
(Litauen), 2004-11.
- Fossdal, A., Brinks, H.W., Fichtner M., Hauback, B.C.  
Thermal decomposition of magnesium alanate.  
International Symposium on Metal Hydrogen Systems, Krakow,  
2004-09-06--09-10.
- Galant, C., Kjørniksen, A-L., Knudsen, K.D., Laukkanen, A.,  
Tenhu, H., Lund, R., Nystrom, B.  
Physical properties of aqueous solutions of a thermoresponsive  
PVCL-g-CIIEP42 copolymer : (poster). World Polymer Congress  
Macro 2004, Paris, 2004-07-04--07-09.
- Hansteen, O.H., Breard, Y., Fjellvåg, H., Hauback, B.C.  
Divalent manganese in reduced  $LaMnO_3$ -delta-effect of oxygen  
nonstoichiometry on structural and magnetic properties. - s.  
279-285  
Solid state sciences. - Vol. 6 (2004)
- Hauback, B.C., Brinks, H.W., Blanchard, D., Jensen, C.M.,  
Fichtner, M., Fjellvåg, H.  
Alanates - structures and effect of additives.  
International Symposium on Metal Hydrogen Systems, Krakow,  
2004-09-06--09-10.
- Hauback, B.C.  
New materials for hydrogen storage. NANOMAT  
konferansen, Oslo, 2004-06-03--06-04.
- Hauback, B.C.  
Storage of hydrogen in metal hydrides - focus on alanates.  
iNANO, Aarhus, 2004-02-20.

- Hauback, B.C., Brinks, H.W.  
Structural studies of alanates - promising materials for hydrogen storage. Nordic Structural Chemistry Meeting , 18, Helsinki, 2004-06.
- Hauback, B.C.  
Structural studies of metal hydrides - focus on in-situ experiments. SNBL workshop, Trondheim, 2004-06.
- Heiberg-Andersen, H., Skjeltop, A.T.  
Carbon nanocones. NANOMAT konferansen, Oslo, 2004-06-03--06-04.
- Heiberg-Andersen, H., Skjeltop, A.T.  
Electronic properties and potential applications of carbon nanocones. Annual Meeting of the Condensed Matter Physics with Atomic Physics Division of the Norwegian Physical Society, Gålå, 2004-09-16--09-18.
- Heiberg-Andersen, H., Skjeltop, A.T.  
Hydrogen storage in carbon nanocones. Norwegian Hydrogen Seminar 2004, Kvitfjell, 2004-11-15.
- Hiorth, M., Kjønksen, A-L., Sande, S.A., Knudsen, K.D., Nystrom, B.  
Structural and turbidity properties in aqueous pectin-chitosan mixtures : (poster). Marine Biopolymers, Trondheim, 2004-06-27--06-29.
- Jensen, C.M., Srinivasan, S.S., Sulic, M.P., Kuba, M., Eaton, S., Brinks, H.W., Hauback, B.C., Yvon, K., Hagemann, H., Gomes, S., Albinati, A.  
Characterization and mechanistic studies of the active titanium species in the reversible dehydrogenation of Ti-doped sodium aluminium hydride. International Symposium on Metal Hydrogen Systems, Krakow, 2004-09-06--09-10.
- Jensen, C.M., Sulic, M.P., Kuba, M., Srinivasan, S.S., Eaton, S., Rijssenbeek, J., Gao, Y., Brinks, H.W., Hauback, B.C., Yvon, K., Hagemann, H., Gomes, D.S.  
Characterization and mechanistic studies of the active titanium species in the reversible dehydrogenation of Ti-doped sodium aluminium hydride. ASM Materials Solution Conference, Columbus, Ohio, 2004-10-18--10-21.
- Kildemo, M., Kristiansen, K.L., Sandnes, B., Washburn, K.  
Diffusion. NANOMAT konferansen, Oslo, 2004-06-03--06-04.
- Knudsen, K.D., Fossum, J.O., Helgesen, G., Haakestad, M.W., Bergaplass, V.  
Pore characteristics and pressure effects in a nano-layered silicate : (poster). Norwegian Physical Society Condensed Matter Meeting, Gålå, 2004-09-16--09-18.
- Knudsen, K.D.  
Rheological and structural properties of aqueous alginate

during gelation via the Ugi multicomponent condensation reaction. Wadahl Spring Meeting: Nanogels and Pharmaceutical Macromolecular Formulations, Gålå, 2004-03-17--03-19.

Knudsen, K.D., Lauten, R.A., Kjønicksen, A.-L., Nystrøm, B.  
Rheological and structural properties of aqueous solutions of a hydrophobically modified polyelectrolyte and its unmodified analogue. - s. 721-733  
European polymer journal. - Vol. 40 (2004)

Knudsen, K.D.  
SANS at IFE. Workshop on Small Angle Scattering from Soft Matter (SAS2004), Lund (Sverige), 2004-01-28--01-29.

Knudsen, K.D.  
Small angle neutron scattering from aqueous biopolymer systems. Universitetet i Oslo. Kjemisk Institutt. Meeting, Oslo, 2004-01-12.

Knudsen, K.D., Fossum, J.O., Helgesen, G., Haakenstad, M.W.  
Small-angle neutron scattering from a nano-layered synthetic silicate. - s. 247-258  
Physica B. - Vol. 352 (2004)

Krawczyk, J., Mayer, J., Natkanic, I., Nowina-Konopka, M., Pawlukojc, A., Steinsvoll, O., Janik, J.A.  
Quasielastic (QENS) and inelastic (INS) neutron scattering on hexamethylbenzene : (poster). Conference on Quasielastic Neutron Scattering, 7, Bordeaux, 2004-09-01--09-04.

Kristiansen, K.d.L., Helgesen, G., Skjeltorp, A.T.  
Braid theory and Zipf relation used in dynamics of magnetic microparticles. - s. 2387-2388  
Journal of magnetism and magnetic materials. - Vol. 272/276 (2004)

Kristiansen, K.d.L., Helgesen, G., Skjeltorp, A.T.  
Experimental observation of Zipf-Mandelbrot relation. - s. 413-420  
Physica A. - Vol. 335 (2004)

Kristiansen, K.d.L., Helgesen, G., Skjeltorp, A.T.  
Phenomena in dynamics of magnetic microparticles : Zipf-Mandelbrot relation and anomalous diffusion : poster. General Conference of the EPS Condensed Matter Division , 20, Praha, 2004-06-19--06-23.

Kristiansen, K.L.  
Anomalous diffusion and Braid theory in the magnetic hole system. Universitetet i Oslo. Kjemisk Institutt. Seminar, Oslo, 2004-03.

Kristiansen, K.L.

Magnetic holes : a fruitfly model for studying complex dynamics. Annual Meeting of the Condensed Matter Physics with Atomic Physics Division of the Norwegian Physical Society, Gålå, 2004-09-16--09-18.

Kristiansen, K.L.

Magnetic holes as a fruitfly model to studying complex dynamics. University of P.J. Safarik Kosice. Meeting, Slovakia, 2004-06-16.

Kristiansen, K.L., Helgesen, G., Skjeltorp, A.T.

Phenomena in dynamics of magnetic microparticles : Zipf-Mandelbrot relation and anomalous diffusion : (poster). General Conference of the European Physical Society Condensed Matter Division , 20, Praha, 2004-07-19--07-23.

Løvvik, O.M.

Adsorption of Ti on  $\text{LiAlH}_4$  surfaces studied by band structure calculations. - s. 28-32  
Journal of alloys and compounds. - Vol. 373 (2004)

Løvvik, O.M., Opelka, S.M., Brinks, H.W., Hauback, B.C.

Crystal structure and thermodynamic stability of the lithium alanates  $\text{LiAlH}_4$  and  $\text{Li}_3\text{AlH}_6$ .  
Physical review B. - Vol. 69 (2004), art. no. 134117

Maeland, A.J., Hauback, B.C.

Advances in hydrogen storage.  
I: Advanced materials for energy conversion II. - Warrendale, PA : The Minerals, Metals & Materials Society, 2004. - ISBN 0-87339-574-3, s. 205-209

Paula, F.L.O., Barrocas, G.R.G., da Silva, G.J., Fossum, J.O., Knudsen, K.D., Tourinho, F.A., Depeyrol, J.

Small angle neutron scattering studies of synthetic clay doped with magnetic fluid : (poster). International Conference on Magnetic Fluids, 10, Guarujá (Brasil), 2004-08-02--08-06.

Pitt, M., Blanchard, D., Vajeeston, O., Marshall, W.G., Fjellvåg, H., Hauback, B.C.

High pressure studies of the  $\text{NaAlD}_4$  and  $\text{LiAlD}_4$  systems. European Powder Diffraction Conference , 9, Praha, 2004-09.

Pitt, M., Blanchard, D., Vajeeston, O., Marshall, W.G., Fjellvåg, H., Hauback, B.C.

High pressure studies of the  $\text{NaAlD}_4$  and  $\text{LiAlD}_4$  systems. International Symposium on Metal Hydrogen Systems, Krakow, 2004-09-06--09-10.

Pitt, M., Gray, E.M., Yvon, K., Bowman Jr. R.C., Brinks, H.W., Hauback, B.C.

Synchrotron X-ray studies of dislocation polygonisation in the  $\text{LaNi}_{5-x}\text{Sn}_x\text{H}_y$  system. European Powder Diffraction Conference , 9, Praha, 2004-09.

- Pitt, M., Brinks, H.W., Wilhelmsen, L., Sørby, M.H., Hauback, B.C.  
 Thermodynamics and structure of interstitial metal hydrides.  
 NANOMAT konferansen, Oslo, 2004-06-03--06-04.
- Pitt, M.P., Brinks, H.W., Jensen, J.O., Hauback, B.C.  
 An in-situ neutron diffraction study of the ageing of  $\text{CaNi}_5\text{D}_x$   
 at 80°C and 9 bar. - s. 190-196  
 Journal of alloys and compounds. - Vol. 372, no 1/2 (Jun 9,  
 2004)
- Recko, K., Hauback, B.C., Dobrzyski, L., Szymaski, K., Satula,  
 D., Kotur, B.Yu, Suski, W.  
 Modulated magnetic structure of  $\text{ScFe}_4\text{Al}_8$  by X-ray, neutron  
 powder diffraction and Mössbauer effect. - s. 764-766  
 Journal of magnetism and magnetic materials. - Vol. 272/276  
 (2004)
- Sandnes, B., Måløy, K.J., Helgesen, G., Løvoll, G., Fossum, J.O.  
 Optical tweezers : (poster). Norwegian Physical Society  
 Condensed Matter Meeting, Gålå, 2004-09-16--09-18.
- Sandnes, B., Måløy, K.J., Helgesen, G., Løvoll, G., Fossum, J.O.  
 Optical tweezers : (poster). NANOMAT konferansen, Oslo, 2004-  
 06-03--06-04.
- Skjeltorp, A.T., Akselvoll, J., Kristiansen, K.d.L., Helgesen,  
 G., Toussaint, R., Flekkøy, E.G., Cernak, J.  
 Self-assembly and dynamics of magnetic holes.  
 I: Forces, growth and form in soft condensed matter : At the  
 interface between physics and biology / ed. by A.T. Skjeltorp  
 and A.V. Belushkin,. - Dordrecht : Kluwer, 2004, s. 165-179
- Srinivasan, S.S., Brinks, H.W., Hauback, B.C., Sun, D., Jensen,  
 C.M.  
 Long term cycling behavior of titanium doped  $\text{NaAlH}_4$  prepared  
 through solvent mediated milling of NaH and Al with titanium  
 dopant precursors. - s. 283-289  
 Journal of alloys and compounds. - Vol. 377 (2004)
- Steinsvoll, O.  
 DNSs fysisk/kjemiske struktur kjent i 50 år. - s. 15-22  
 Kvant. - Nr. 4 (Des. 2004)
- Sørby, M.H., Møllergård, A., Delaplane, R.G., Wannberg, A.,  
 Hauback, B.C., Fjellvåg, H.  
 Reverse Monte Carlo investigation of the short-range order in  
 $\alpha\text{-VD}_{0.8}$ . - s. 214-221  
 Journal of alloys and compounds. - Vol. 363, no 1/2 (Jan 28,  
 2004)
- Sørby, M.H., Møllergård, A., Hauback, B.C., Fjellvåg, H.  
 Reverse Monte Carlo modelling of short-range order in  $\text{ZrCr}_2\text{D}_4$ .  
 International Symposium on Metal Hydrogen Systems,  
 Krakow, 2004-09-06--09-10.

- Toussaint, R., Helgesen, G., Flekkøy, E.G.  
 Dynamic roughening and fluctuations of dipolar chains.  
 Physical review letters. - Vol. 93 (2004), art. no.108304
- Toussaint, R., Akselvoll, J., Helgesen, G., Skjeltorp, A.T.,  
 Flekkøy, E.G.  
 Interaction model for magnetic holes in a ferrofluid layer.  
 Physical review E. - Vol. 69 (2004), art. no. 011407
- Toussaint, R., Akselvoll, J., Helgesen, G., Flekkøy, E.G.,  
 Skjeltorp, A.T.  
 Interactions of magnetic holes in ferrofluid layers. - s. 151-  
 155  
 Progress in colloid and polymer science. - Vol.128 (2004)
- Udovic, T.J., Huang, Q., Chowdhuri, Z., Cappelletti, R.L.,  
 Iniguez, J., Yildirim, T., Maeland, A.J., Hauback, B.C.  
 Neutron scattering survey of the  $ZrBe_2H_x$  phase diagram.  
 International Symposium on Metal Hydrogen Systems,  
 Krakow, 2004-09-06--09-10.
- Vidya, R., Ravindran, P., Kjekshus, A., Fjellvåg, H., Hauback,  
 B.C.  
 Magnetic properties of Ca-doped  $SrRuO_3$  from full-potential  
 calculations. - s. 146-158  
 Journal of solid state chemistry. - Vol. 177 (2004)
- Wilhelmsen, L.K., Hauback, B.C., Brinks, H.W., Fjellvåg, H.  
 In-situ powder diffraction studies of hydrogen desorption in  
 metal hydrides. International Symposium on Metal  
 Hydrogen Systems, Krakow, 2004-09-06--09-10.

## **MILJØ OG STRÅLEVERN, RADIOAKTIVT AVFALL**

- \*Backe, S.  
 En oversikt over utslipp av radioaktivitet fra Institutt for  
 Atomenergi i 1950- og 1960-årene.  
 Kjeller, 2004. (IFE/KR/F-2004/194)
- Brown, J.E., Gerland, S., Karcher, M.J., Pavlov, V., Harms, I.,  
 Iospe, M., Gwynn, J., Christensen, G.C.  
 Data analysis of measured and modelled times series of  
 Technetium-99 in the Nordic marine environment for monitoring  
 design improvement. ECORAD Conference on The  
 Scientific Basis for Environment Protection Against Radioacti-  
 vity, Aix-en-Provence (Frankrike), 2004-09-06--09-10.
- \*Christensen, G., Backe, S., Krosshavn, M., Sørum, R., Wikstrøm,  
 V.A.  
 Opprensning i Nitelva 2000-2001 ved fjerning av radioaktivt  
 forurenset sediment og den del av NALFA-ledningen som var  
 gravd ned i elveleiet.  
 Kjeller, 2004. (IFE/KR/F-2004/035)

Fure, K., Sidhu, R.S., Tveiten, S.S.

Measurement of  $^{89/90}\text{Sr}$  in effluent water by liquid scintillation Counting. International Congress of the International Radiation Protection Association, 11, Madrid, 2004-05-23--05-28.

Gaefvert, T., Føyen, L., Brungot, A.L., Kolstad, A.K., Lind, B., Gwynn, J., Sværen, I., Alvestad, P., Skipperud, L., Strålberg, E., Christensen, G.C., Salbu, B., Drefvelin, J., Dowdall, M., Rudjord, A.L.

Radioactivity in the marine environment 2002 : results from the Norwegian National Monitoring Programme (RAME). Østerås : Statens Strålevern, 2004. (StrålevernRapport-2004/10)

Haneborg, I.H.

Gir gangtrening med staver en reduksjon i selvrapporterte muskel/skjelettplager i nakke/skuldre/armar hos ansatte i en kunnskapsbedrift? : prosjektrapport. Kjeller : STAMI/IFE, 2004.

Karcher, M.J., Iosjpe, M., Harms, I., Gerdes, R., Christensen, G.C., Dahlgaard, H., Heldal, H.E., Hermann, J., Leonard, K., Kershaw, P.J., Nies, H., Gwynn, J.P.

Technetium-99 in the Nordic Seas and the Arctic Ocean 1970-2002 : observations and model results. ECORAD Conference on The Scientific Basis for Environment Protection Against Radioactivity, Aix-en-Provence (Frankrike), 2004-09-06--09-10.

Kershaw, P.J., Masson, M., Rudjord, A.L., Christensen, G.C., Dahlgaard, H., Barry, J., Maxwell, D.L., Nawakowski, C. Seasonal cycles in the  $^{99}\text{Tc}$  content of Fucus seaweeds from NW European coastal waters. ECORAD Conference on The Scientific Basis for Environment Protection Against Radioactivity, Aix-en-Provence (Frankrike), 2004-09-06--09-10.

\*Munz, I., Wangen, M., Christensen, G.

Characterisation of the near-field host rock of a potential Nuclear waste repository on Novaja Zemlya, Russia Kjeller, 2004. (IFE/KR/F-2004/090)

Raaum, A., Eriksen, D., Strålberg, E., Sidhu, R., Rye, H., Hylland, K., Berntssen, M.

Radioactivity in produced water from Norwegian oil and gas installations : concentrations, bioavailability and doses to human and marine biota. PROOF Annual Meeting, Orkanger, 2004-10-12--10-14.

\*Raaum, A., Bjerck, T.O.

Radiologisk undersøkelse i Himdalen 2002 : resultater av målinger etter 5 års drift av KLDRA. Kjeller, 2004. (IFE/KR/F-2004/067)

Raaum, A., Christensen, G.C.

Seasonal variations in activity concentrations of  $^{137}\text{Cs}$ ,  $^{40}\text{K}$ ,  $^7\text{Be}$ ,  $^{228}\text{Ac}$ ,  $^{99}\text{Tc}$ ,  $^{90}\text{Sr}$ , and  $^{239/240}\text{Pu}$  in Fucus vesiculosus and Ascophyllum nodosum from the south-eastern coast of Norway.

ECORAD Conference on The Scientific Basis for Environment Protection Against Radioactivity, Aix-en-Provence (Frankrike), 2004-09-06--09-10.

\*Ramsøy, T.

Dekontaminering av lagerrom, Geologisk museum. Kjeller, 2004. (IFE/KR/F-2004/086)

Ramsøy, T., Christensen, G.C., Varskog, P.

Long term behaviour of low and intermediate level waste packages under repository conditions.

I: Long term behaviour of low and intermediate level waste packages under repository conditions : results of a co-ordinated research project 1997-2002. - Wien : IAEA, 2004. - (IAEA -TECDOC-1397). - s. 131-135

REMOTRANS Consortium

REMOTRANS, Processes regulating remobilisation, bioavailability and translocation in marine sediments : final report, / EU Project No. FIS5-1999-00279 Remotrans 000509.

Lund : University of Lund, 2004-01-25

Sidhu, R.S., Østmo, K., Bjerck, T., Nordvi, R., Strålberg, E.

Development of a procedure for the determination of  $^{226}\text{Ra}$ ,  $^{228}\text{Ra}$  and  $^{210}\text{Pb}$  in produced water. International Conference on Isotopes in Environmental Studies - Aquatic Forum 2004, Monte-Carlo, 2004-10-25--10-29.

Sidhu, R.S.

Extraction chromatographic separation of Sr, Pu and Am in environmental samples : Ph.D. Thesis.

Unipub AS : Oslo, 2004

Sidhu, R.S., Holm, E., Roos, P., Lehto, J., Ikaeheimonen, T.K.,

Ramebaeck, H.

The RADCHEM project. NKS Mini-seminar on Radioecology and Measurement Techniques (RADSEM-2004), Risø, 2004-08-19.

Strålberg, E., Enger, G., Raaum, A.

Informasjon, helse og miljø i forbindelse med Nitelva-saken : resultater fra spørreundersøkelse.

Kjeller, 2004. (IFE/I-2004/018)

\*Strålberg, E.

Måling og klassifisering av avfall fra magnesiumproduksjon.

Del 1: Forundersøkelser.

Kjeller, 2004. (IFE/KR/F-2004/207)

\*Strålberg, E., Mechkarska, K.

Måling og klassifisering av avfall fra magnesiumproduksjon.

Del 2: Feltnmåling og klassifisering av slam fra elektrolysebad.

Kjeller, 2004. (IFE/KR/F-2004/208)

\*Strålberg, E., Mechkarska, K.

Måling og klassifisering av avfall fra magnesiumproduksjon.

Del 3. Feltnmåling og klassifisering av katoder og katodeslam.

Kjeller, 2004. (IFE/KR/F-2004/223)

Varskog, P., Melberg, B., Aamlid, H., Ramsøy T.

NORM in the Norwegian North Sea Sector: Assessment, Handling and Management of LSA Scale in the Norwegian Oil and Gas Industry. International Symposium on Disposal of Low Activity Radioactive Waste, Cordoba (Spania), 2004-12-13--12-17.

## **RADIOFARMASI**

Dugstad, E.S.

IFE og UiO fortsatt alene om å levere PET-legemidler. - s. 19  
Norsk farmaceutisk tidsskrift. - Vol. 112, nr 4 (2004)

Salberg, G., Hagen, A., Schoultz, B., Borrebaek, J., Løberg, R., Borch, K., Bruland, O., Harboe, B., Farstad, B., Larsen, R.  
Radium-223 : a promising Alpha emitting nuclide in treatment of skeletal metastases. ICRRC, International Congress of Radiopharmacy and Radiopharmaceutical Chemistry, Istanbul, 2004-09-25--09-27.

## **ANNET**

Institutt for energiteknikk

Konsekvensutredning av videre drift av konsesjonsunderlagte anlegg ved Institutt for energiteknikk.  
Kjeller : IFE, 2004

Institutt for energiteknikk

Sammendrag av konsekvensutredning av videre drift av konsesjonsunderlagte anlegg ved Institutt for energiteknikk.  
Kjeller : IFE, 2004