

Preliminary Program

Tuesday, June 4						
20.30	Welcome Reception					Rica Nidelven Hotel
Wednesday, June 5						
08:00	Registration					
08:30	Conference opening by Dr. Nils A. Røkke, Conference Chair, Vice President, SINTEF					Chairman: Nils Røkke R1
08:40	Norway's role in CCS Deployment: Ane Kismul, State Secretary, Ministry of Petroleum and Energy					R1
09:00	A Path Forward for CCS Deployment - An IEA Vision : Mr. Juho Lipponen, Head of CCS Unit, IEA					R1
09:20	CCUS Status in China:Dr. Zhang Jiutian, Deputy Director, The Adm. Centre China's Agenda 21 (ACCA21),					R1
09:40	Coffee Break					
10:00	The NORDICCS CCS Roadmap: Dr. Marit Mazzetti, Research Scientist, SINTEF Energy Research					Chairman: Gunnar Sand R1
10:15	Research to promote deployment of CCS, Åse Slagtern, Special Adviser, Research Council of Norway					R1
10:30	Plans for CCS deployment in the UK, Selcan Kayihan, Economic Advisor in the Office of CCS in DECC					R1
10:45	TCM status and plans: Frank Ellingsen, CEO, Technology Centre Mongstad DA					R1
11:00	Boundary Dam - progress and status: Dr. Mike Monea, President, Saskatchewan Power Corporation					R1
11:15	Coffee Break and transfer to lecture rooms					
	Session A1 (Auditorium R2) NOVEL TECHNOLOGIES Chair: Francois Kalaydjian	Session B1 (Auditorium R1) ABSORPTION DEGRADATION Chair: Eirik Falck Da Silva	Session C1 (Auditorium R5) ABSORBER DESIGN Chair: Svein Bekken	Session D1 (Auditorium R3) OXY-FUEL Chair: Antti Arasto	Session E1 (Auditorium R7) REGIONAL MAPPING Chair: Tore A. Torp	Session F1 (Auditorium R8) LEAKAGE MECHANISMS Chair: Alv-Arne Grimstad
11:40	Process design and analysis of dual-phase membranes for off-shore post-combustion capture from gas turbines - Rahul Anantharaman	Thermal degradation of MEA, effect of temperature and CO2 loading - Andreas Grimstvedt	Comparison of structured and random packings for optimum design of CO2 capture packed columns - Alix Pascal	Integration of an Oxygen-containing Exhaust Gas into the Air Separation Unit of an Oxyfuel Power Plant with Maximised CO2 Capture Rate - Dickmeis Jens	Making a CO2 storage atlas for the Nordic countries – The Nordic Competence Centre for CCS, NORDICCS - Karen Lyng Anthonsen	Displaced brine migration resulting from CO2 injection at a putative CO2 storage site in the Southern North Sea - Sarah Hannis
12:00	Long-term stability of CO2 selective dual phase membranes for CO2 separation from multi-component gas streams - Rune Bredesen	Oxidation of Amines for CO2 Capture - Alexander Voice	Packing characterization for CO2 capture: Mass Transfer Models - Chao Wang	Liquefaction of oxyfuel flue gases – Experimental results and modeling of heat transfer coefficients - Küster Thorsten	The Norwegian CO2 Storage Atlas - Halland Eva	Faulting in prospective CO2 storage sites in the UK Southern North Sea - John Williams
12:20	Low Cost Electricity Production From Fossil Fuels With Full Capture Of Carbon Dioxide At High Pressure And High Purity - Rodney Allam	Oxidative degradation of MEA; the effect of oxygen concentrations and temperature on product formation - Solrun Johanne Vevelstad	A novel gas-liquid contactor for PCC based on a rotating liquid sheet - Leigh Wardhaugh	Deposits And Corrosion During Oxyfuel Combustion - Gosia Stein-Brzozowska	Large-scale storage of CO2 on the Norwegian shelf - Enabling CCS readiness in Europe - Grethe Tangen	CO2 capillary entry pressure into flow barrier and caprock - Raheleh Farokhpoor
12:40	Lunch					
	Session A2 (Auditorium R2) COMMUNICATING CCS Chair: Filip Johnsson	Session B2 (Auditorium R1) ABSORPTION DEGRADATION / EMISSIONS Chair: Steve Bedell	Session C2 (Auditorium R5) MONITORING / CONTROL Chair: Sven van der Gijp	Session D2 (Auditorium R3) OXY-FUEL - LOOPING TECHNOLOGIES Chair: Bjørg Andresen	Session E2 (Auditorium R7) STORAGE CAPACITY / EOR Chair: Filip Neele	Session F2 (Auditorium R8) MONITORING Chair: Herve Quinquis
13:40	The Ketzin pilot site, Germany - A communication concept that supports the research into CO2 storage - Alexandra Szizybalski	Modeling of MEA degradation - Diego Pinto	Manual Sampling And Measurement Of Ethanolamine And Ammonia Emissions From Post-Combustion Carbon Capture - Han Huynh	First Operational Experiences in The Ciuden 30 MWth OXY-CFB Integrated Facility - Pedro Otero	Effects from boundary conditions and input functions on dynamic storage capacity estimation - Carsten Nielsen	Induced Seismicity and its Implication for CO2 Storage Risk - Millie Basava-Reddi
14:00	Development of CCS projects in Poland -How to communicate with the local public? - Kaiser Marta	Reclamation Of Monoethanolamine (Mea) Used In Post-Combustion CO2 Capture With Electrodialysis - Alexey Volkov	In-line monitoring of solvent and CO2 properties: Preliminary assessment using design of experiment - Leen van Der Ham	Development of novel solid sorbent for high-temperature CO2 capture - Johann Mastin	Natural Gas Baseline In Seal And Reservoir: How It Affects Injectivity, Capacity And Safety For CO2 Storage - Harald Johansen	Achieving regulatory conformance: a study in prediction and verification at Sleipner - Andy Chadwick

14:20	Explaining The Invisible – A Physical Model Against Misconceptions About Geological Storage - Mischa Werner	Emission counter-measures in post-combustion CO2 capture. Demonstration at pilot plant scale - Leen van Der Ham	Verification of Basic Control Systems for Post-combustion CO2 Capture Based on Power Plant Load Change - Nina Enaasen	(Fe1-xMnx)TiγO3 based oxygen carriers for chemical-looping combustion (CLC) and chemical-looping with oxygen uncoupling (CLOU) - Magnus Rydén	Investigation of Water Mobility Reduction by CO2 Exsolution - Lin Zuo	Overview on the electromagnetic characterization and monitoring experiments of the Hontomin Technology Development Plant for geological storage of CO2, Spain - Xènia Ogaya
14:40	Ideas And Ideals – Metaphors For Right And Wrong - Jens Røyrvik	Environmental Degradation Of Nitramines And Nitrosamines Released From Post Combustion CO2-Capture Plants By Physical And Microbial Processes - Lisbet Sørensen	Part Load Behaviour of Power Plants with a Retrofitted Post-Combustion CO2 Capture Process - Volker Roeder	Development Of A CaO-CuO-Based, Al2O3-Supported Material For The Integrated Calcium And Chemical Looping Combustion Process Using A Sol-Gel Technique - Christoph Müller	Caprock compressibility and the consequences for pressure development in CO2 storage sites - Ernest Ncha Mbia	CO2 storage: building trust between operator and authorities with a view to transferring residual risk when decommissioning - Christian Bos
15:00				CO2 Capture by Carbonate Looping in 1 MWth Scale – Experimental Results and Model Validation - Jochen Ströhle	Quantification of practical and matched CO2 storage capacity for insufficiently known reservoirs - Kris Welkenhuysen	
14:40	Coffee Break					
14:40	Poster Session					
	Session A3 (Auditorium R2) CCS PROJECTS Chair: Robin Irons	Session B3 (Auditorium R1) ABSORPTION FUNDAMENTALS Chair: Gary Rochelle	Session C3 (Auditorium R5) BIO-INDUSTRIAL CCUS Chair: Aage Stangeland	Session D3 (Auditorium R3) OXY-FUEL Chair: Jochen Ströhle	Session E3 (Auditorium R7) STORAGE CAPACITY Chair: Peter Frykman	Session F3 (Auditorium R8) MONITORING / REMEDIATION Chair: Andy Chadwick
16:00	Chilled Ammonia Process at Technology Center Mongstad-First Results - Jalal Askander	NMR work on Phase Change Solvents for CCS - Arlinda Ciftja	Can Bio-CCS lead to carbon negative solutions - technologies, potential and barriers for Bio-CCS deployment in Nordic countries - Antti Arasto	Development and initial testing of an oxyfuel combustion concept for gas turbine applications - Øyvind Langørgen	The Carbfix Project - Mineral Storage Of CO2 In Basalt - Sigurdur Gislason	Permanent seismic monitoring using a fixed array at the Ketzin CO2 storage site - Rob Arts
16:20	Experiences from oxy-fuel combustion of bituminous coal in a 150 kWth circulating fluidized bed pilot facility - Gerrit Hofbauer	NMR Investigation on Carbamate Formation from Alkanolamines for Carbon Dioxide Capture - Cristina Perinu	In Situ CO2 Capture With CaO In A 300 Kw Fluidized Bed Biomass Combustor - Maria Elena Diego	Membrane Separation for Oxygen Enriched Air Production: Potentialities for Hybrid Carbon Capture Strategies and Comparison with Cryogenic Process - Bouchra Belaissaoui	Method for estimating CO2 storage capacity - Hallvard Høydalsvik	CO2 monitoring at the Sleipner field with full waveform inversion – Application to real data - Anouar Romdhane
16:40	The impact of the quality of CO2 on transport and storage behavior - IMPACTS - Astrid Lilliestråle	A simplified vapour-liquid-equilibria model for CO2-amine-water systems - Graeme Puxty	Cost Optimised CO2 Capture From Aluminium Production - Anette Mathisen	Low-temperature syngas separation and CO2 capture from IGCC - David Berstad	Characterization of a potential CO2 storage site offshore mid Norway using migration modelling tools on a basin-wide scale - Joachim Rinna	Methodologies and technologies for mitigation of undesired CO2 migration in the subsurface - Thomas Le Guenan
17:00	The Aquistore Project: Buffer Storage And Associated Research As Part Of A Commercial Scale CCUS From A Coal-Fired Power Station - Neil Wildgust	Binary Vle Of DEEA/H2o, MAPA/H2o and DEEA/MAPA Systems - Ardi Hartono	Feeding a gas turbine with aluminium plant exhaust for increased CO2 concentration in capture plant - Kristin Jordal	Sorption-enhanced water-gas shift: modelling from molecules to process cycles - Jurriaan Boon	Interaction of CO2 Storage with Subsurface Resources - Millie Basava-Reddi	Including Fracture Permeability Hysteresis In CCS Leakage Remediation Simulation - Da Huo
17:20	End of Day 1					Busses to hotel
18:15	Concert and Conference Dinner					Nidaros Cathedral / RICA Nidelven
Thursday, June 6						
08:30	Opening address: SINTEF and NTNU CCS R&D History and Overview, Dr. Mona MølInvik, SINTEF Energy					Chairman: Hallvard F. Svendsen R1
08:40	Global CCS project review, Ms. Angeline Kneppers, Middle-East and Africa, Global CCS Institute					R1
09:00	Post-combustion CO2 Capture Technology – A Review and Outlook, Dr. Paul Feron, CSIRO					R1
09:20	Gassnova - Developing Geological Storage, Mr. E.H. Hansen and Mr. N.P. Christensen, Gassnova SF					R1
09:40	Award winner's lecture (to be announced)					R1
10:00	Coffee Break					
10:20	Session A4 (Auditorium R2) CCS PROJECTS / ENABLERS Chair: Hans A. Haugen	Session B4 (Auditorium R1) ABSORPTION FUNDAMENTALS / PHASE CHANGE SOLVENTS Chair: Karl A. Hoff	Session C4 (Auditorium R3) MEMBRANES Chair: Rune Bredesen	Session D4 (Auditorium R5) HYDRATES - TRANSPORT - PIPELINE INTEGRITY Chair: Bjørn H. Morland	Session E4 (Auditorium R7) STORAGE CAPACITY / POLICY Chair: Henk Pagnier	Session F4 (Auditorium R8) LEAKAGE DETECTION / GEOCHEMISTRY Chair: Maria Barrio

10:20	The CO2FieldLab project: how to adapt a geochemical monitoring strategy to complex geological environments - Gal Frederick	Representation of CO2 absorption equilibria in sterically hindered amines - Zulkifli Idris	Novel Nanocomposite Membranes For CO2 Capture - Vajiheh Nafisi	Hydrate growth at the interface between water and CO2/CH4 gas mixtures: influence of pressure, temperature, gas composition and water-soluble surfactants - Daniel Broseta	A Consistent Physical Model For The Formation Of Focused Flow Channels (Chimneys) Through Intra-Reservoir Shales - Nina Simon	Comparison Of The Impacts Of Elevated CO2 Soil Gas Concentrations On Selected European Terrestrial Environments - Julia West
10:40	NORDICCS- CCS in the Nordic countries - Ragnhild Skagestad	Enthalpy of CO2 absorption in MEA calculated from theoretical reaction equilibrium constants at infinite dilution - Mayuri Gupta	Hybrid membrane-absorber CO2 capture - Martijn Huiber	Low Temperature-Induced Brittle Fracture Propagation in CO2 Pipelines - Solomon Brown	Use of low- and high-IFT fluid systems in experimental and numerical modelling of CO2 storage in saline aquifers - Szczepan Polak	Effect Of Dissolved CO2 On Shallow Groundwater—An Integrated Field And Modeling Study - Jens Birkholzer
11:00	Development of a High-Pressure CO2-Compressor Test Rig - Christian Wacker	Selection and Characterization of Phase-Change Solvent for Carbon Dioxide Capture: Precipitation Behavior Study - Xiaoguang Ma	Hybrid membrane-absorber CO2 capture - Eric Favre	CO2 Pipeline Integrity: Comparison Of A Coupled Fluid-Structure Model And Uncoupled Two-Curve Methods - Eskil Aursand	The AUGÉ Project: Compilation of scientific results to underpin the implementation of the German transposition of the European CCS Directive - Martin Streibel	CO2 Migration Monitoring Methodology In The Shallow Subsurface : Lessons Learned From The CO2FieldLab Project - Etor Querendez
11:20	New subsea solutions for offshore CO2 EOR as an enabler for large-scale CCS - Olav Hansen	Reactive Absorption Of CO2 Into Aqueous Blends Of DEEA And MAPA - Juliana Monteiro	CO2 Capture with Membranes: Process Feasibility Analysis - Xuezhong He	Natural gas vs anthropogenic CO2:differences and similarities concerning pipeline structural integrity - Giuseppe Demofonti	Is there a case for storage management in the UK? - Michelle Bentham	Large Scale Numerical Modelling Of CO2 Injection And Containment Phases For An Italian Site Using Pflotran - Paolo Orsini
11:40	Lunch					
12:40	Session A5 (Auditorium R2) CCS WHOLE CHAIN ISSUES Chair: Gelein de Koeijer	Session B5 (Auditorium R1) PROCESS DEVELOPMENT Chair: Graeme Puxty	Session C5 (Auditorium R3) MEMBRANES / ADSORPTION Chair: Eric Favre	Session D5 (Auditorium R5) TRANSPORT - PIPELINE INTEGRITY - THERMODYNAMICS Chair: Svend Tollak Munkejord	Session E5 (Auditorium R7) POLICY / BEST PRACTICE Chair: Paula Coussy	Session F5 (Auditorium R8) GEOCHEMISTRY Chair: Harald Johansen
12:40		Cansolv's Road Map to Commercialization of Post Combustion CO2 Capture - Devin Shaw	Techno-economic assessment and optimization of hybrid membrane-cryogenic processes for post-combustion carbon capture - Xiangping Zhang	Is The Corrosion Risk In The Pipeline Underestimated? – Lack Of Reliable Data Is A Reason For Concern! - Bjørn H Morland	Risk of Leakage from CO2 Storage Sites: Implications for Pricing of Carbon Capture and Storage - Jorge H Garcia	Coupling compositional flow, thermal effects and geochemistry reactions when injecting CO2 in an carbonated oil field - Maurand Nicolas
13:00	A Methodology For Providing Research Recommendations For CO2 Capture - Kristin Jordal	Hitachi's Carbon Dioxide Scrubbing Technology with H3-1 Absorbent - Hirofumi Kikkawa	Polymer-Encapsulated Carbonate Solvents for Improved Bicarbonate Solids Utilization with Minimal Liquid Water - Roger Aines	Accurate Phase Equilibrium Measurements of CO2 Mixtures - Snorre Foss Westman	Improving The Protocols For Leakage Monitoring With CO2 Attribution Monitoring - Tim Dixon	Changes in the rock properties and injectivity due to salt precipitation on the Snøhvit CO2 injection site - Sissel Grude
13:20	A matter of purity – requirements for the CO2 stream purity along the entire CCS chain - Heike Ruetters	Development and Evaluation of New Amine Solvent at Mikawa CO2 Capture Pilot Plant - Satoshi Saito	High Capacity CO2 Capture via Covalent Organic Polymers at Pre- and Post-Combustion Conditions - Mert Atilhan	Simulating flow of CO2 with impurities in OLGA; Dealing with narrow phase-envelopes and the critical point - Torgeir Ruden	Protocol For Response To Claims Of CO2 Leakage Developed At The Kerr Farm: Weyburn-Midale Oilfield - Katherine Romanak	CO2 reactive transport in limestone: influence of dissolution regimes on mechanical rock properties - Andreas Bauer
13:40	Whole-chain CCS steady-state and dynamic system modelling: from power generation to storage - Laurence Robinson	Long term in-situ testing of post-combustion capture technologies at an industrial site with the ACTTROM unit - Mathieu Lucquiaud	Synthesis Of Ca-Based, Zr-Stabilized Sorbents For Capture Of CO2 - Christoph Müller	Modelling CO2 Transport and the Effect of Impurities: Developing a New Equation of State for CCS Pipeline Transport - Thomas Demetriades	Best Practices for Validating CO2 Geological Storage - Neil Wildgust	CO2 sequestration in sandstone and carbonate formations - instabilities in viscous flow and reactive transport - Christopher Pentland
14:00	Coffee Break					
14:20	Session A6 (Auditorium R2) WHOLE CHAIN CASE STUDIES Chair: Grethe Tangen	Session B6 (Auditorium R1) PROCESS CONFIGURATION / INTEGRATION Chair: Kristin Jordal	Session C6 (Auditorium R3) ADSORPTION Chair: Bjørnar Arstad	Session D6 (Auditorium R5) TRANSPORT DEPRESSURIZATION Chair: Svein Solvang	Session E6 (Auditorium R7) SITE SCREENING Chair: Vit Hladik	Session F6 (Auditorium R8) GEOCHEMISTRY/WELL INTEGRITY Chair: Sigurdur Gislason

14:20	CO2 Capture rate sensitivity versus purchase of CO2 quotas. Optimizing investment choice for electricity sector - Paula Coussy	Improved Process Configurations for Amine Scrubbing - Gary Rochelle	Surface modifications of Dolomite for high temperature CO2 sorption - Bjørnar Arstad	Numerical Modelling Of Solid-Vapour Releases Of Carbon Dioxide From High-Pressure Transportation Pipelines - Sergey Martynov	Estimation of storage capacity in the Gassum Formation in Skagerrak - Per Eirik Bergmo	A multi-scale numerical approach to integrate dynamic petrophysical and reactive transport properties at pore scale in a CO2 storage simulator Validation test cases and sensibility analysis - Anthony Michel Anthony
14:40	Valuation and Storage of CO2 : A global Carbon dioxide Management Project in South-East France - Le Gallo Yann	Absorption/Stripping Base-Case Configuration and Techno-Economic Analysis for Concentrated PZ and MDEA/PZ - Peter Frailie	Adsorption-based CO2 capture under humid conditions: adsorption isotherms and breakthrough experiments - Dorian Marx	The explosive evaporation of CO2; an experimental study on temperature dependence - Martijn van Der Voort	Qualification of a CO2 storage site using an integrated reservoir study - Barbara Di Pasquo	Wellbore-Scale Discrete Element Modeling Of Cement Sheath Integrity And Interfaces During CO2-Injection - Gerco Hoedeman
15:00	Minimising the cost of CCS development – The Netherlands case - Filip Neele	Integration of a high-pressure piperazine capture plant with a power plant: An energetic evaluation - Leen van Der Ham	Highly Efficient CO2 Capture Technology by CaO Dispersed in CaF2/NaF Molten Salt - Viktorija Tomkute	Depressurization Calculation Of CO2 Pipelines – Sensitivity To Thermodynamic And Fluid-Dynamic Models - Svend Tollak Munkejord	Pre-injection characterization tests of Heletz (Israel) site in preparation of small-scale CO2 injection experiments - Auli Niemi	Leakage of CO2 along Cement-Formation Interfaces in Wellbores - Malin Torsæter
15:20	The relevance of CCS in the Baltic Sea region - Jan Kjärstad	Temporary CO2 capture shut down: Implications on low-pressure steam turbine design and efficiency - Kristin Jordal	Composite Sorbent For CO2 Capture From Ambient Air - Janna Veselovskaya	Physics of accidental CO2 releases: a lab-scale experimental study - Bogemann-Van Osch Marlies	Modelling Of Transient Flow In CO2 Injection Wells - Gelein de Koeijer	
15:40	Closing Remarks by Dr. Erik Lindeberg					R1
15:50	End of Conference					