

Systems Analysis Group

■ 2011 Original Paper

	Title	Researchers	Journal
1	Investment for Competitive Power Plants under Uncertainty of Allocation Scheme	Junichiro Oda, Ryuta Takashima	Journal of Real Options and Strategy, Vol.4 No.1 47–60, February 2011
2	GIS-based Estimation of Global Carbon Sequestration Potential through Forest Management	K. Akimoto, T. Tomoda, K. Tahara, T. Kojima	Journal of Chemical Engineering of Japan, Vol.44 No.10 pp.764–773, 2011
3	International Climate Agreements under Induced Technological Change	M. Nagashima, H–P. Weikard, K. Bruin, R. Dellink	Metroeconomica, Vol.62 No.4 pp.612–634, 2011
4	Assessment of Copenhagen Pledges with Long-term Implications	K. Wada, F. Sano, K. Akimoto, T. Homma, K. Tokushige, M. Nagashima, T. Tomoda	Energy Economics, in press

■ 2011 Other Paper (e.g. Review, Comment)

	Title	Researchers	Journal
1	Verification of Mid-term Emission Reduction Targets – Shared Reductions by Developed and Developing Regions	Keigo Akimoto	Posted on the International Environment and Economy Institute's Website, March 1, 2011
2	Estimate of Power Generation Costs by Energy Source and Issues of Solar Belt Planning	Keigo Akimoto	Monthly Business i. ENECO, Vol.49 No.7, July 2011
3	Insights from Game-Theoretic Analysis on the Design of International Climate Agreements	Miyuki Nagashima	International Public Policy Studies, Vol.16 No.1, September, 2011
4	Proper Understanding of Scenario	Keigo Akimoto	Symposium on IPCC-AR5 (Mitigation Policy and Transformation Pathways), posted on the website September, 2011
5	Importance of Minimizing Social Barriers to Adoption of Energy-efficient Technologies for Realizing Emission Reductions	Miyuki Nagashima	Symposium on IPCC-AR5 (Mitigation Policy and Transformation Pathways), posted on the website, September, 2011
6	Look at the Forest, Roots and Soil	Keigo Akimoto	Daily Global Warming News http://daily-ondanka.com/thoughts/index.html , September, 2011
7	Climate Change Mitigation and Balanced Energy toward Sustainable Development	Keigo Akimoto	Energy for the future, December, 2011

■ 2011 Oral Presentation (Domestic Conference)

	Title	Researchers	Forum
1	Analyses on Comparability for Mid- and Long-term GHG Emission Mitigation	Keigo Akimoto, Fuminori Sano, Takashi Honma, Kenichi Wada, Ayami Hayashi, Miyuki Nagashima	27th conference on Energy, Economy and Environment, January 26, 2011
2	Bounded Rationality in Energy-efficiency Investments	Kenichi Wada, Keigo Akimoto, Takashi Honma, Fuminori Sano, Junichiro Oda, Miyuki Nagashima	27th conference on Energy, Economy and Environment, January 26, 2011
3	Analysis of Land Use for Agriculture and CO2 Emissions due to Land-use Change	Ayami Hayashi, Keigo Akimoto, Masanobu Kii	27th conference on Energy, Economy and Environment, January 26, 2011
4	Analysis of Domestic Economic Impacts on Mid-term Targets of CO2 Reductions	Takashi Honma, Keigo Akimoto, Miyuki Nagashima, Kenichi Wada, Fuminori Sano	27th conference on Energy, Economy and Environment, January 26, 2011
5	Development of Socio-economic Scenarios Based on Analysis of Socio-economic Factors	Takashi Honma, Keigo Akimoto, Kohko Tokushige, Kenichi Wada	27th conference on Energy, Economy and Environment, January 26, 2011
6	Analysis of Long-term Climate Change Mitigation in a Transportation Sector by Using a World Energy Systems Model	Fuminori Sano, Keigo Akimoto, Junichiro Oda, Takashi Honma, Kenichi Wada	27th conference on Energy, Economy and Environment, January 26, 2011
7	Analysis of Long-term Climate Change Mitigation in a Power Generation Sector by Using a World Energy Systems Model	Fuminori Sano, Keigo Akimoto, Junichiro Oda, Takashi Honma, Kenichi Wada	27th conference on Energy, Economy and Environment, January 26, 2011
8	Consideration on Evaluation Indicators Concerning Global Warming Measures and Sustainable Development	Kohko Tokushige, Keigo Akimoto, Junichiro Oda, Kenichi Wada, Ayami Hayashi	27th conference on Energy, Economy and Environment, January 26, 2011
9	Study of Global Steel Scenario by Region	Junichiro Oda, Keigo Akimoto, Fuminori Sano, Takashi Honma, Kenichi Wada, Juan Liu	27th conference on Energy, Economy and Environment, January 26, 2011
10	A Study on Discount Rate in Climate Change control	Miyuki Nagashima, Keigo Akimoto	27th conference on Energy, Economy and Environment, January 26, 2011
11	A Study on Historical Transition of Energy Policy in China Based on the Five-year Plans	Juan Liu, Keigo Akimoto	27th conference on Energy, Economy and Environment, January 26, 2011
12	Evaluation of Agro-land Use and Water-use under Climate Change	Ayami Hayashi, Keigo Akimoto, Masanobu Kii	30th Annual Meeting of Japan Society of Energy and Resources, June 2, 2011

	Title	Researchers	Forum
13	Assessing the Benchmark Stringency of EU ETS Phase III in Iron & Steel and Cement Sectors	Junichiro Oda, Keigo Akimoto, Kenichi Wada, Miyuki Nagashima, Fuminori Sano, Takashi Honma,	30th Annual Meeting of Japan Society of Energy and Resources, June 2, 2011
14	An Analysis of Global Food Production under Forest Preservation	Ayami Hayashi, Keigo Akimoto,	2011 Annual Meeting of Society of Environmental Science, Japan, September 8, 2011
15	Mitigation of GHG Emissions	Keigo Akimoto	43rd Fall Symposium of The Society of Chemical Engineers, Japan, September 14, 2011

■2011 Oral Presentation (International Conference)

	Title	Researchers	Forum
1	Balancing Mitigation Efforts from Long-term Perspectives	Kenichi Wada	The Fourth Asian Modeling Exercise Meeting, China, March 31, 2011
2	Toward Effective and Sustainable Global Warming Mitigations	Keigo Akimoto	Hartwell II Meeting, United Kingdom, April 8, 2011
3	Scenarios for Sustainable Development and Global Warming Response	Keigo Akimoto	UN Expert Group Meeting on SD21 Sustainable Development Scenarios for Rio-20, Austria, June 27-29, 2011
4	For Rightful Understanding of Scenarios	Keigo Akimoto	Symposium on IPCC-AR5 (Mitigation Policy and Transformation Pathways), Japan, July 5, 2011
5	Importance of Removing Social Barriers for Realizing Emission Reductions	Miyuki Nagashima	Symposium on IPCC-AR5 (Mitigation Policy and Transformation Pathways), Japan, July 5, 2011
6	Energy-efficiency Opportunities in the Residential Sector and their Feasibility	K. Wada, K. Akimoto, F. Sano, J. Oda, T. Honma	The Sixth Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems, Croatia, September 8, 2011
7	Overview of ALPS Project and Future Perspectives	Miyuki Nagashima	Seminar on Japan's contribution to IASA Activities, Austria, September 16, 2011
8	Climate Policies in Japan Update	Kenichi Wada	AMPERE Vienna, Austria, October 3, 2011
9	Energy-efficiency Opportunities in the Residential Sector and their Feasibility	K. Wada, F. Sano	EMF24 Potsdam, Germany, November 7, 2011

■2011 Non-Journal Publication

	Title	Researchers	Magazine, Newspaper, etc.
1	The Ways to Stop Global Warming of our Country – International Contributions of the Low-carbon Technologies	Keigo Akimoto	Environment Strategy Council, Global Environment Forum-Kansai, February 3, 2011
2	Global Warming Suppression and Scenarios for Nuclear Power and Distributed Energy System	Keigo Akimoto	"The Trend of international energy and environmental issues", Symbio Community Forum, March 4, 2011
3	Global Scenarios for Climate Change Response Measures	Keigo Akimoto	CO2 Stabilization Workshop, April 21, 2011
4	Energy and Climate Change Policy Perspectives	Keigo Akimoto	"Japan's strategy of Global Warming", Intellectual Café, Research Center for Advanced Science and Technologies, The University of Tokyo, June 2, 2011
5	Risks and Response Strategies of Global Warming	Keigo Akimoto	"Research Project on Disaster Risk Management that Tackles Global Environmental Change", chaired by Prof. Morimoto, Institute of World Study, Takushoku University, June 21, 2011
6	Towards a New International Post-Kyoto Framework	Keigo Akimoto	Keidanren International Environmental Strategy WG, , July 21, 2011
7	Strategies for Global Warming –Big Picture on Global Warming Issues–	Keigo Akimoto	An intensive course, The University of Tokyo Graduate School of Art and Science, August 1-2, 2011
8	Estimate of Power Generation Costs	Keigo Akimoto	Workshop on Costs, Japan Atomic Energy Commission, September 1, 2011
9	Estimate of Power Generation Costs	Keigo Akimoto	Commissioners' Regular Meeting, Japan Atomic Energy Commission, September 13, 2011
10	Game-theoretic Analysis of International Climate Agreements: Introduction of the Latest Paper and Future Perspectives	Miyuki Nagashima	Workshop on "Economic analysis relating to the environment and energy resources strategy after 2011 Kanto-Tohoku Earthquake", September 22, 2011

	Title	Researchers	Magazine, Newspaper, etc.
11	Estimate of Power Generation Costs	Keigo Akimoto	Keidanren Energy Policy Workshop, October 21, 2011
12	Analysis of Japan's Strategy for Energy and Environment	Keigo Akimoto	Keidanren Global Japan Committee, October 25, 2011
13	Energy and Environmental Policies and Technology Perspectives	Keigo Akimoto	Kagawa Next Generation Manufacturing Study Group, November 9, 2011
14	SSP, RCP, ALPS Scenarios	Keigo Akimoto	The Second Workshop on Scenarios and Climate Change Impact Assessment, November 15, 2011
15	Food Production and Agro-land Use in the 21st Century –Development of Quantitative Scenarios by Using a Global Model–	A. Hayashi, K. Akimoto	The Second Workshop on Scenarios and Climate Change Impact Assessment, November 15, 2011
16	Overview of the Cost Verification Committee of the Government and Analysis of Power Generation Costs	Keigo Akimoto	Nuclear Energy Study Group, the Japan Chamber of Commerce and Industry, November 28, 2011
17	Impacts of Energy Issues on the Local Economy	Keigo Akimoto	General Policy Committee, the Japan Chamber of Commerce and Industry, December 16

Molecular Microbiology and Biotechnology Group

■ 2011 Original Paper

	Title	Researchers	Journal
1	Regulation of the nitrate reductase operon <i>narKGHJ</i> by the cAMP-dependent regulator GlxR in <i>Corynebacterium glutamicum</i> .	T. Nishimura, H. Teramoto, K. Toyoda, M. Inui and H. Yukawa.	Microbiology 157: 21–28. 2011.
2	Translation efficiency of antiterminator proteins is a determinant for the difference in glucose repression of two beta-glucoside phosphotransferase system gene clusters in <i>Corynebacterium glutamicum</i> R.	Y. Tanaka, H. Teramoto, M. Inui and H. Yukawa.	J. Bacteriol. 193: 349–357. 2011.
3	Identification of mannose uptake and catabolism genes in <i>Corynebacterium glutamicum</i> and genetic engineering for simultaneous utilization of mannose and glucose.	M. Sasaki, H. Teramoto, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 89: 1905–1916. 2011.
4	Gene expression profiling of <i>Corynebacterium glutamicum</i> during anaerobic nitrate respiration: induction of the SOS response for cell survival.	T. Nishimura, H. Teramoto, M. Inui and H. Yukawa.	J. Bacteriol. 193: 1327–1333. 2011.
5	Efficient markerless gene replacement in <i>Corynebacterium glutamicum</i> using a new temperature-sensitive plasmid.	N. Okibe, N. Suzuki, M. Inui and H. Yukawa.	J. Microbiol. Methods. 85: 155–163. 2011.
6	Diversity of metabolic shift in response to oxygen deprivation in <i>Corynebacterium glutamicum</i> and its close relatives.	S. Yamamoto, M. Sakai, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 90: 1051–1061. 2011.
7	Metabolic engineering of 1,2-propanediol pathways in <i>Corynebacterium glutamicum</i> .	S. Niimi, N. Suzuki, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 90: 1721–1729. 2011.
8	Transcriptional regulators of multiple genes involved in carbon metabolism in <i>Corynebacterium glutamicum</i> .	H. Teramoto, M. Inui and H. Yukawa.	J. Biotechnol. 154: 114–125. 2011.
9	Metabolic engineering of bacteria for utilization of mixed sugar substrates for improved production of chemicals and fuel ethanol.	T. Jojima, M. Inui and H. Yukawa.	Biofuels 2: 303–313. 2011.
10	High yield secretion of heterologous proteins in <i>Corynebacterium glutamicum</i> using its own Tat-type signal sequence.	H. Teramoto, K. Watanabe, N. Suzuki, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 91: 677–687. 2011.
11	Genome-wide identification of <i>in vivo</i> binding sites of GlxR, a cyclic AMP receptor protein-type regulator in <i>Corynebacterium glutamicum</i> .	K. Toyoda, H. Teramoto, M. Inui and H. Yukawa.	J. Bacteriol. 193: 4123–4133. 2011.
12	Characterization of the mannitol catabolic operon of <i>Corynebacterium glutamicum</i> .	X. Peng, N. Okai, A.A. Vertès, K. Inatomi, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 91: 1375–1387. 2011.
13	Global transcriptome analysis of the tetrachloroethene dechlorinating bacterium <i>Desulfotobacterium hafniense</i> Y51 in the presence of various electron donors and terminal electron acceptors.	X. Peng, S. Yamamoto, A.A. Vertes, G. Keresztes, K. Inatomi, M. Inui and H. Yukawa.	J. Ind. Microbiol. Biotechnol. (in press)
14	Improvement of the redox balance increases L-valine production by <i>Corynebacterium glutamicum</i> under oxygen deprivation.	S. Hasegawa, K. Uematsu, Y. Natsuma, M. Suda, K. Hiraga, T. Jojima, M. Inui and H. Yukawa.	Appl. Environ. Microbiol. (in press)

■ 2011 Oral Presentation

	Title	Researchers	Forum
1	Biorefinery Blue-Print: a Growth-Arrested Bioprocess for Manufacturing a Portfolio of Commodity and Fine Chemicals.	Masayuki Inui, Alain A. Vertès and Hideaki Yukawa	241st American Chemical Society National Meeting & Exposition, 31 March 2011
2	Mechanism of The Different Response of Two <i>bgl</i> -PTSGene Clusters to Glucose in <i>Corynebacterium glutamicum</i> R.	Yuya Tanaka, Haruhiko Teramoto, Masayuki Inui and Hideaki Yukawa.	American Society for Microbiology 111th General Meeting, 21–24 May 2011
3	Genome-wide Identification of In Vivo Binding Sites of GlxR, A cAMP Receptor Protein Homolog in <i>Corynebacterium glutamicum</i> .	Koichi Toyoda, Haruhiko Teramoto, Masayuki Inui and Hideaki Yukawa.	American Society for Microbiology 111th General Meeting, 21–24 May 2011
4	Production of Biofuels/Biochemicals from Non-food Based Biomass by the RITE Bioprocess	Hideaki Yukawa	2nd Annual Future of Biobased Chemicals – Inception to Marketplace Conference, 7 July 2011
5	Gene expression profiling of <i>Corynebacterium glutamicum</i> under anaerobic nitrate respiration.	Taku Nishimura, Haruhiko Teramoto, Masayuki Inui and Hideaki Yukawa.	SIM Annual Meeting, 25 July 2011
6	Regulation of NAD <i>de novo</i> biosynthesis genes in <i>Corynebacterium glutamicum</i> .	Haruhiko Teramoto, Masako Suda, Masayuki Inui and Hideaki Yukawa.	SIM Annual Meeting, 25 July 2011
7	The RITE Bioprocess in Production of Biofuels and Biochemicals from Lignocellulosic Biomass-Derived Mixed Sugars	Masayuki Inui and Hideaki Yukawa.	International Union of Microbiological Societies 2011 Congress (IUMS2011), 8 September 2011
8	Biorefinery: Today and Future	Hideaki Yukawa	BioJapan2011 – A Bio Round Table Meeting for Embassies –, 7 October 2011
9	Production of Green Chemicals from Non-Food Biomass by a Growth-Arrested Bioprocess Using Corynebacteria	Masayuki Inui	BioJapan2011, 7 October 2011
10	Production of Biofuels and Biochemicals from Non-Food Biomass by a Growth-Arrested Bioprocess Using Corynebacteria	Masayuki Inui and Hideaki Yukawa.	UM-BTI/NAIST Joint Symposium, 18 October 2011

■ 2011 Non-Journal Publication

	Title	Researchers	Magazine, Newspaper, etc.
1	High-Throughput Transposon Mutagenesis of <i>Corynebacterium glutamicum</i> .	N. Suzuki, M. Inui and H. Yukawa.	Strain Engineering: Methods and Protocols, p.409–417, Humana Press

Chemical Research Group

■ 2011 Original Paper

	Title	Researchers	Journal
1	Preparation of Pore-fill-type Palladium-Porous Alumina Composite Membrane for Hydrogen Separation	Kensuke Nagata(NAIST), Katsunori Yogo, Tsuyoshi Watabe, Yuichi Fujioka, Manabu Miyamoto	Chemistry Letters 40 (1), 19–21 (2011)
2	Development of a Low Cost CO ₂ Capture System with a Novel Absorbent under the COCS Project	Kazuya Goto, Firoz Alam Chowdhury, Hiromichi Okabe, Shinkichi Shimizu, Yuichi Fujioka	Energy Procedia 4, 253–258 (2011)
3	Synthesis and selection of hindered new amine absorbents for CO ₂ capture	Firoz Alam Chowdhury, Hiromichi Okabe, Hidetaka Yamada, Masami Onoda, Yuichi Fujioka	Energy Procedia 4, 201–208 (2011)
4	Quantum chemical analysis of carbon dioxide absorption into aqueous solutions of moderately hindered amines	Hidetaka Yamada, Hiromichi Okabe, Shinkichi Shimizu, Yuichi Fujioka, Yoichi Matsuzaki(Nippon Steel Corporation)	Energy Procedia 4, 133–139 (2011)
5	Development of an energy-saving CO ₂ -PSA process using hydrophobic adsorbents	Katsunori Yogo, Tsuyoshi Watabe, Yuichi Fujioka, Yosuke Matsukuma, Masaki Minemoto (Kyusyu Univ.)	Energy Procedia 4, 803–808 (2011)
6	Effects of membrane properties on CO ₂ recovery performance in a gas absorption membrane contactor	Hiroshi Mano, Yuichi Fujioka, Nobuhide Takahashi, Yusuke Furuta, Hiroshi Fukunaga, Toru Takatsuka(Shinshu Univ.)	Energy Procedia 4, 693–698 (2011)
7	Density functional theory study on carbon dioxide absorption into aqueous solutions of 2-amino-2-methyl-1-propanol using a continuum solvation model	Hidetaka Yamada, Takayuki Higashii, Shingo Kazama, Yoichi Matsuzaki(Nippon Steel Corporation)	J. Phys. Chem. A 115 3079–3086 (2011)
8	Development of novel absorbents for CO ₂ capture from blast furnace gas	Kazuya Goto, Hiromichi Okabe, Firoz Alam Chowdhury, Shinkichi Shimizu, Yuichi Fujioka, Masami Onoda(Nippon Steel Corporation)	International Journal of Greenhouse Gas Control 5 1214–1219 (2011)
9	Gas permeation properties of amine loaded mesoporous silica membranes for CO ₂ separation	Katsunori Yogo, Manabu Miyamoto, Ayato Takayama, Shigeyuki Uemiyu (Gifu Univ.)	Desalination and Water Treatment 34 266–271 (2011)

■ 2011 Oral Presentation

	Title	Researchers	Forum
1	CO ₂ Membrane Separation	Teruhiko Kai, Shingo Kazama	CCS WORKSHOP(Hotel Sultan in Jakarta,Golden Ballroom,Jakarta(Indonesia)) 22 February 2011
2	Membranes in precombustion	Shingo Kazama	International Symposium on Environment,Energy and Materials(Kanbaikan,Doshisha University,Kyoto) 10 March 2011
3	Synthesis and selection of new amine absorbents for CO ₂ capture	Firoz Alam Chowdhury, Takayuki Higashii, Kazuya Goto, Shingo Kazama, Masami Onoda(Nippon Steel Corporation)	1st Post Combustion Capture Conference (PCCC1) (Abu Dhabi, UAE) 17 May 2011
4	Advanced CO ₂ Separation Using Molecular Gates	Shingo Kazama	Carbon Capture Workshop (Stanford University, Stanford, California) 27 May 2011
5	Development of Molecular Gate Membrane for CO ₂ Capture	Shuhong Duan, Teruhiko Kai, Ikuo Taniguchi, Shingo Kazama	6th Japan-China Symposium on Chemical Engineering(Wuhan, China) 23 June 2011
6	Development of a novel CO ₂ capture system with chemical absorption for the integrated steel works	Kazuya Goto, Firoz Alam Chowdhury, Satoshi Kodama, Shin Yamamoto, Takayuki Higashii, Hiromichi Okabe, Shingo Kazama	1st International Conference on Energy Efficiency and CO ₂ Reduction in the Steel industry(CCD Congress Center Dusseldorf, Germany) 29 June 2011
7	Experimental study into carbon dioxide solubility and species distribution in aqueous alkanolamine solutions	Hidetaka Yamada, Takayuki Higashii, Firoz A. Chowdhury, Kazuya Goto, Shingo Kazama	Sustainable Chemistry 2011(University of Antwerp, Belgium) 9 July 2011
8	Evaluation of a novel absorbent for CO ₂ capture in a pilot plant with coal combustion gas containing high concentration of SO ₂	Kazuya Goto, Satoshi Kodama, Yuichi Fujioka, Shingo Kazama, Rei Satoh, Masayuki Iwamura(Chiyoda Corp.), Yuli Artanto, James Jansen, Pauline Pearson, Erik Meuleman(CSIRO)	The 8th Asia Pacific Conference on Sustainable Energy & Environmental Technologies (APCSEET2011)(University of Adelaide, Australia) 12 July 2011
9	Development of poly(amidoamine) dendrimer/polymer hybrid membranes for CO ₂ /H ₂ separation	Teruhiko Kai, Shuhong Duan, Ikuo Taniguchi, Shingo Kazama	ICOM2011(The RAI in Amsterdam) 25 July 2011
10	Development of Novel Absorbents for Energy-Saving CO ₂ Capture System	Kazuya Goto, Firoz Alam Chowdhury, Shin Yamamoto, Takayuki Higashii, Shingo Kazama	14th Asian Chemical Congress(14ACC)(Queen Sirikit National Convention Center, Bangkok, Thailand) 6 September 2011
11	Development of Molecular Gate Membrane for CO ₂ Capture	Shingo Kazama	The Fourth CSLF Ministerial Meeting(Beijing, China) 20 September 2011
12	Advanced CO ₂ /H ₂ Separation Materials Incorporating Active Functional Agents	Shingo Kazama	GCEP symposium(Stanford University, Stanford, California) 5 October 2011
13	Generation Behavior of Heat-Stable Salt in Novel Chemical Solvent for CO ₂ Capture Process from Blast-Furnace Gas	Shin Yamamoto, Takayuki Higashii, Shingo Kazama	2011 AIChE Annual meeting(Minneapolis Convention Center, Minneapolis, MN) 18 October 2011

CO₂ Storage Research Group

■ 2011 Original Paper

	Title	Researchers	Journal
1	Monitoring and detecting CO ₂ injected into water-saturated sandstone with joint seismic and resistivity measurements	Jongwook Kim, Toshifumi Matsuoka, Ziqiu Xue	Exploration geophysics, 2011, 42, 1-10
2	Experimental study of electric and seismic monitoring for mobile and residual CO ₂ in the drainage and imbibition stages	Jongwook Kim, Toshifumi Matsuoka, Ziqiu Xue	Geophysical Journal International, submitted
3	Relative permeability of water and supercritical CO ₂ under steady-state flow conditions in porous sandstones	Tetsuya Kogure, Keigo Kitamura, Tatsuya Yamada, Osamu Nishizawa, Ziqiu Xue	Journal of the Japanese Association for Petroleum Technology, submitted
4	The effect of lamina on super critical CO ₂ behaviour in porous sandstone: investigation from elastic wave velocity	Keigo Kitamura, Ziqiu Xue, Tatsuya Yamada, Osamu Nishizawa	Journal of the Mining and Materials Processing Institute of Japan
5	Effect of formation water compositions on predicting CO ₂ behavior case study at the nagaoka post-injection monitoring site	Saeko Mito, Ziqiu Xue, Tatsuya Sato	Applied Geochemistry, submitted
6	Relative permeability of water and supercritical CO ₂ under steady-state flow conditions in porous sandstones	Tetsuya Kogure, Keigo Kitamura, Tatsuya Yamada, Osamu Nishizawa, Ziqiu Xue	Journal of geography, in press

■ 2011 Oral Presentation

	Title	Researchers	Forum
1	Roles of geophysics and rock physics in geological CO ₂ sequestration	Ziqiu Xue	12th international congress on rock mechanics, Beijing, China, 2011/10/21
2	Fluid chemistry of the onshore CO ₂ sequestration formation at nagaoka, japan: 5 years passed since CO ₂ injection	Saeko Mito, Yuki Asahara, Ziqiu Xue	AGU fall meeting (Invited), San Francisco, USA, 2011/12/5-9
3	Nagaoka 4d seismic revisited	Naoshi Aoki, Akihisa Takahashi, Ziqiu Xue	IEA-GHG 7th monitoring network meeting, Potsdam, Germany, 2011/06/07
4	CO ₂ saturation from nagaoka wireline measurement	Ziqiu Xue, Takahiro Nakajima, Shun Chiyonobu, Saeko Mito	IEA-GHG 7th monitoring network meeting, Potsdam, Germany, 2011/06/08
5	The rock physical approach to the complex CO ₂ flow in the bedded Tako sandstone	Keigo Kitamura, Ziqiu Xue, Tatsuya Yamada, Osamu Nishizawa	Japan Geoscience Union meeting 2011, 2011/05/22-27
6	Monitoring subsurface CO ₂ condition by applying rock physics	Osamu Nishizawa, Tatsuya Yamada, Ziqiu Xue	Japan Geoscience Union meeting 2011, 2011/05/22-27
7	Data analysis of time-lapse well logging results for the monitoring of stored CO ₂ at the Nagaoka pilot site	Takahiro Nakajima, Ziqiu Xue, Saeko Mito	Japan Geoscience Union meeting 2011, 2011/05/22-27
8	Experimental study for CO ₂ migration monitoring to estimate P-wave traveltimes and amplitudes by drainage and imbibition	Susumu Sakashita, Keigo Kitamura, Dai Nobuoka, Hiroyuki Azuma, Junya Takeshima, Hideki Saito, Ziqiu Xue	Japan Geoscience Union meeting 2011, 2011/05/22-27
9	Design of experimental facility for steady state relative permeability measurements in water-supercritical CO ₂ systems	Tsuya Kogure, Ziqiu Xue	Japan Geoscience Union meeting 2011, 2011/05/22-27
10	Visualization technique of CO ₂ storage mechanism using X-ray computed tomography	Yukihiro Yazaki, Shun Chiyonobu, Ziqiu Xue	Japan Geoscience Union meeting 2011, 2011/05/22-27
11	Geological features of reservoir formation of Nagaoka CO ₂ injection Site, based on the sedimentary facies analysis	Shun Chiyonobu, Yukihiro Yazaki, Ziqiu Xue	Japan Geoscience Union meeting 2011, 2011/05/22-27
12	CO ₂ monitoring by the time-lapse well logging at the pilot-scale injection site, Nagaoka, Japan	Takahiro Nakajima, Ziqiu Xue, Saeko Mito	KACST-JCCP 1st joint international workshop for the Earth's surface and subsurface 4D monitoring in 2012, Riyadh, Saudi Arabia, 2011/1/9
13	Global trends of CO ₂ geological storage development and approach of RITE	Shigeo Murai	Innovative environmental technology symposium, 2011/12/1
14	current status of CCS technologies	Makoto Nomura	37th Japan Society for Atmospheric Environment symposium in Osaka, 2011
15	Super critical CO ₂ monitoring in porous sandstone by simultaneous measurement of Vp and resistivity	Ziqiu Xue, Toshifumi Matsuoka	Fall meeting of the Mining and Materials Processing Institute of Japan (invited), 2011/09/28
16	Evidence of Geochemical Trapping at the Pilot-scale CO ₂ Injection Site, Nagaoka	Saeko Mito, Yuki Asahara, Ziqiu Xue	Annual Meeting of Geochemical Society of Japan (invited), 2011/09/14-16
17	Distributed size of patchy saturated CO ₂	Hiroyuki Azuma, Chisato Konishi, Ziqiu Xue	Fall meeting of Society of Exploration Geophysicists of Japan Conference (invited), 2011/09/13-15

■ 2011 Non-Journal Publication

	Title	Researchers	Magazine, Newspaper, etc.
1	Development of CO ₂ geological storage technologies	Susumu Sakashita, Ziqiu Xue	JCRM News, 2011/4
2	CO ₂ storage technology in deep saline aquifer	Koichi Takizawa, Ziqiu Xue	Electrical Review, 2011/6
3	Marine environmental assessment for CO ₂ storage at offshore aquifer	Jun Kita, Ziqiu Xue	Electrical Review, 2011/7
4	Mineral trapping of CO ₂	Saeko Mito, Ziqiu Xue	Electrical Review, 2011/8
5	Study on monitoring method available for assessing microseismicity in CCS demonstration sites. (Part 1) –A geological survey in the SECARB region, and selection of demonstration site–	Tsutomu Hashimoto, Kinichiro Kusunose, Haruka Kondo, Shigeo Horikawa, Iwao Niinuma, Ziqiu Xue	Japan Society of Engineering Geology 2011/10/27–28
6	Study on monitoring method available for assessing microseismicity in CCS demonstration sites. (Part 2) –Design of microseismic monitoring network and expansion into CCS sites in Japan–	Tsutomu Hashimoto, Kinichiro Kusunose, Shigeo Horikawa, Haruka Kondo, Iwao Niinuma, Ziqiu Xue	Japan Society of Engineering Geology 2011/10/27–28
7	Relative permeability of water and supercritical CO ₂ under steady-state flow conditions in porous sandstones	Tetsuya Kogure, Keigo Kitamura, Tatsuya Yamada, Osamu Nishizawa, Ziqiu Xue	International Conference on Flows and Mechanics in Natural Porous Media from Pore to Field Scale– Pore2Field, Rueil-Malmaison, France, 2011/11/16–48
8	Evaluation of a resistivity model derived from the time-lapse well loggings at CO ₂ injection site, Nagaoka, Japan	Takahiro Nakajima, Ziqiu Xue	KACST–JCCP 1st joint international workshop for the Earth's surface and subsurface 4D monitoring in 2012, Riyadh, Saudi Arabia, 2011/1/9