

System Analysis Group

■2008 Original Paper (Peer-reviewed)

	Title	Researchers	Journal
1	Impact Assessment of the Increase in Fossil Fuel Prices on the Global Energy System, with and without CO ₂ Concentration Stabilization	U. K. Rout, K. Akimoto, F. Sano, J. Oda, T. Homma, T. Tomoda	Energy Policy, Volume 36 ,No. 9, 3437-3484, 2008
2	Global Emission Reductions through a Sectoral Intensity Target Scheme	K. Akimoto, F. Sano, J. Oda, T. Homma, U. K. Rout, T. Tomoda	Climate Policy, Vol. 8, S46-S59, 2008
3	Technology Spillovers and Stability of International Climate Coalitions	M. Nagashima, Rob Dellink	International Environmental Agreements: Politics, Law and Economics (in Press)
4	Stability of International Climate Coalitions – A Comparison of Transfer Schemes	M. Nagashima, Rob Dellink, Ekko van Ierland, Hans-Peter Weikard	Ecological Economics (in Press)

■2008 Other Paper (e.g., Review, Comment)

	Title	Researchers	Journal
1	A Desired Stabilization Target of Atmospheric CO ₂ Concentration	J. Oda, K. Akimoto, A. Hayashi, T. Homma, F. Sano, T. Tomoda	Communications of the Operations Research Society of Japan, Vol. 53, No. 4, April 2008
2	Post-Kyoto Regime – Achievement both of Environmental Measures and Economic Growth	K. Akimoto	Economic Trend, April 2008
3	Is It Possible to Achieve Halving Greenhouse Gases until 2050?	K. Akimoto	Journal of Japan Electric Association, June 2008
4	Toward Sustainable Development Low Carbon Society-The ALPS Project-	K. Akimoto	Journal of Japan Environmental Management Association for Industry, June 2008,

■2008 Oral Presentaion (Domestic Conference)

	Title	Researchers	Forum
1	An Integrated Assessment of Global Warming and the Long-term Stabilization Target	A. Hayashi, K. Akimoto, S. Mori, T. Homma, F. Sano, J. Oda, T. Tomoda	24th Conference on Energy, Economy, and Environment 30-31, January, 2008
2	Analysis on Factors of Change in GHG Emissions and Policy Effects in Major Countries	K. Tokushige, K. Akimoto, J. Oda	24th Conference on Energy, Economy, and Environment 30-31, January, 2008
3	Proposal and Evaluation of Global Sectoral Intensity Target Scheme	F. Sano, K. Akimoto, J. Oda, T. Tomoda	24th Conference on Energy, Economy, and Environment 30-31, January, 2008
4	Discussions on Cap & Trade and Sectoral Intensity Target Schemes	K. Akimoto	24th Conference on Energy, Economy, and Environment 30-31, January, 2008
5	An Analysis and Survey of Recent Technological Progress and Long-term Perspectives	J. Oda, K. Akimoto, F. Sano, T. Homma, T. Tomoda	24th Conference on Energy, Economy, and Environment 30-31, January, 2008
6	Impacts Assessment of Increase in Crude Oil, Natural Gas and Coal Prices on Global Energy System without and with Carbon Concentration Stabilization	U. K. Rout, K. Akimoto, F. Sano, J. Oda, T. Homma, T. Tomoda	24th Conference on Energy, Economy, and Environment 30-31, January, 2008
7	Evaluation of Long-Term Global CO ₂ Emission Reduction Target –Regional Costs and mitigation technologies–	F. Sano, K. Akimoto, J. Oda, T. Tomoda	27th Annual Meeting of Japan Society of Energy and Resources, 5 June, 2008
8	Effects of Sectoral Benchmarking on Global CO ₂ Emission Reductions	K. Akimoto, F. Sano	Society for Environmental Economics and Policy Studies 2008, 27-28, September, 2008
9	An Analysis of Steel Supply and Demand and Mitigation Scenario until 2050	J. Oda, K. Akimoto, F. Sano	156th Autumn Conference, The Iron and Steel Institute of Japan, 24 September, 2008
10	Study on the socio-economic aspect of bio-fuel sustainability in Asia	M. Kii, A. Maruyama, S. Kai	38th Conference on Infrastructure Planning, 1 November, 2008

■ 2008 Oral Presentaion (International Conference)

	Title	Researchers	Forum
1	Mitigation potentials in energy supply and end-use sectors	K. Akimoto,	International Workshop on Sectoral Emission Reduction Potential, May, 2008
2	Sectoral analysis of mitigation potential	F. Sano, K. Akimoto,	Sectoral Approaches to International Climate Policy Workshop, May, 2008
3	Evaluation of Sectoral and Regional CO ₂ Emissions: Production-Based and Consumption-Based Accounting Measurements	T. Homma, K. Akimoto, T. Tomoda	GTAP Conference 2008(Annual Conferences: Eleventh Annual Conference, 2008) , 12-14, June, 2008
4	Integrated Assessment for Climate Change in Asia Consisting with Global Scenarios	M.Kii	AEEMF 5th Annual Workshop, 3, June, 2008
5	Activities for Global Scenario Development by RITE	K. Akimoto	IAMC (Integrated Assessment Modeling Consortium) Meeting, 23, September, 2008
6	Technology Development and Diffusion and Global Warming Mitigation through Sectoral Approach	K. Akimoto	International Symposium on Technologies for Mitigating Global Warming, 27 November, 2008
7	Global Emission Reduction Potentials and Scenarios in Energy Supply and End-use Sectors	K. Akimoto, F. Sano	2nd International Workshop on Sectoral Emission Reduction Potential, 22 October, 2008
8	Overview of DNE21+ model	F. Sano, K. Akimoto,	2nd International Expert Meeting on Bottom-up Based Analysis on Mitigation Potential, 21 October, 2008
9	Long- and Mid-Term Emission Reduction Targets to Keep Continued Fight against Climate Change	K. Akimoto	International Meeting on Mid-Long Term Strategy for Climate Change, 30 June, 2008
10	Diffusion of CCS and Energy Efficient Technologies in Power and Iron & Steel Sectors	J. Oda, K. Akimoto, F. Sano	GHGT9, 16-20, November, 2008
11	A Framework to Add Incentives for Managements after CO ₂ Injections	K. Tokushige, K. Akimoto	GHGT9, 16-20, November, 2008

■ 2008 Non-Journal Publication

	Title	Researchers	Magazine, Newspaper, etc.
1	Global Warming Issue and Post-Kyoto Framework	K. Akimoto	Instrumentation & Process Control Engineers' Association, 14 November, 2008
2	International Emission Reduction Frameworks and Targets after KP -Investigation from a Desirable Long-Term Stabilization Level, and of Cost-Potentials of Emission Reduction by Nation and by Sector-	T. Tomoda, K. Akimoto	2nd Japan-Germany Meeting Towards Copenhagen Summit, 2 December, 2008
3	Scenarios Toward Low Carbon Future - Technology Diffusions and Developments -	K. Akimoto	The Asia-Pacific Partnership on Clean Development and Climate, 4th Steel Task Force Workshop, 16 April, 2008
4	Energy Strategy toward Low-carbon Society and Issues	K. Akimoto	Japan Society of Energy and Resources, 10 June, 2008
5	Post-Kyoto: Sectoral Approach	K. Akimoto	Japan Society of Energy ans Resources, 11 July, 2008
6	Mitigation cost of global warming - The ambitious target should be discussed considering the costs	K. Akimoto	Asahi Shinbun, Opinion 14 June, 2008
7	Low Carbon Economy	K. Akimoto	Nikkei Publishing Inc. 21 November, 2008

Molecular Microbiology and Biotechnology Group

■ 2008 Original Paper

	Title	Researchers	Journal
1	Technological Options for Biological Fuel Ethanol.	A.A. Vertès, M. Inui and H. Yukawa.	J. Mol. Microbiol. Biotechnol. 15:16–30. 2008.
2	Regulation of the expression of phosphoenolpyruvate, carbohydrate phosphotransferase system (PTS) genes in <i>Corynebacterium glutamicum</i> R.	Y. Tanaka, N. Okai, H. Teramoto, M. Inui and H. Yukawa.	Microbiology. 154:264–274. 2008.
3	Engineering of an L-arabinose metabolic pathway in <i>Corynebacterium glutamicum</i> .	H. Kawaguchi, M. Sasaki, A.A. Vertès, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 77:1053–1062. 2008.
4	Production of isopropanol by metabolically-engineered <i>Escherichia coli</i> .	T. Jojima, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 77:1219–1224. 2008.
5	Expression of <i>Clostridium acetobutylicum</i> butanol synthetic genes in <i>Escherichia coli</i> .	M. Inui, M. Suda, S. Kimura, K. Yasuda, H. Suzuki, H. Toda, S. Yamamoto, S. Okino, N. Suzuki and H. Yukawa.	Appl. Microbiol. Biotechnol. 77:1305–1316. 2008.
6	Transcription of <i>Corynebacterium glutamicum</i> genes involved in tricarboxylic acid cycle and glyoxylate cycle.	S.O. Han, M. Inui and H. Yukawa.	J. Mol. Microbiol. Biotechnol. 15:264–276. 2008.
7	DivS, a novel SOS inducible cell-division suppressor in <i>Corynebacterium glutamicum</i> .	H. Ogino, H. Teramoto, M. Inui and H. Yukawa.	Mol. Microbiol. 67:597–608. 2008.
8	Regulation of expression of general components of the PTS by the global regulator SugR in <i>Corynebacterium glutamicum</i> .	Y. Tanaka, H. Teramoto, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 78:309–318. 2008.
9	Production of D-lactic acid by <i>Corynebacterium glutamicum</i> under oxygen deprivation.	S. Okino, M. Suda, K. Fujikura, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 78:449–454. 2008.
10	ArnR, a novel transcriptional regulator, represses expression of the <i>narKGHJI</i> operon in <i>Corynebacterium glutamicum</i> .	T. Nishimura, H. Teramoto, A.A. Vertès, M. Inui and H. Yukawa.	J. Bacteriol. 190:3264–3273. 2008.
11	Random genome deletion methods applicable to prokaryotes.	N. Suzuki, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 79:519–526. 2008. (Mini-Review)
12	Group 2 sigma factor SigB of <i>Corynebacterium glutamicum</i> positively regulates glucose metabolism under conditions of oxygen deprivation.	S. Ehira, T. Shirai, H. Teramoto, M. Inui and H. Yukawa.	Appl. Environ. Microbiol. 74:5146–5152. 2008.
13	Identification of a gene encoding a transporter essential for utilization of C4-dicarboxylates in <i>Corynebacterium glutamicum</i> .	H. Teramoto, T. Shirai, M. Inui and H. Yukawa.	Appl. Environ. Microbiol. 74:5290–5296. 2008.
14	Effect of carbon source availability and growth phase on expression of <i>Corynebacterium glutamicum</i> genes involved in tricarboxylic acid cycle and glyoxylate bypass.	S.O. Han, M. Inui and H. Yukawa.	Microbiology 154:3073–3083. 2008.
15	An efficient succinic acid production process in a metabolically engineered <i>Corynebacterium glutamicum</i> strain.	S. Okino, R. Noburyu, M. Suda, T. Jojima, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 81:459–464. 2008.
16	Expression of the <i>gapA</i> gene encoding glyceraldehyde-3-phosphate dehydrogenase of <i>Corynebacterium glutamicum</i> is regulated by the global regulator SugR.	K. Toyoda, H. Teramoto, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 81:291–301. 2008.
17	Transcriptional regulation of <i>Corynebacterium glutamicum</i> methionine biosynthesis genes in response to methionine supplementation under oxygen deprivation.	M. Suda, H. Teramoto, T. Imamiya, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 81:505–513. 2008.
18	Simultaneous utilization of D-cellobiose, D-glucose, and D-xylose by recombinant <i>Corynebacterium glutamicum</i> under oxygen-deprived conditions.	M. Sasaki, T. Jojima, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. 81:691–699. 2008.
19	Deletion of <i>cgR_1596</i> and <i>cgR_2070</i> , encoding NlpC/P60 proteins, causes a defect in cell separation in <i>Corynebacterium glutamicum</i> R.	Y. Tsuge, H. Ogino, H. Teramoto, M. Inui and H. Yukawa.	J. Bacteriol. 190:8204–8214. 2008.
20	Characterization of a new 2.4-kb plasmid of <i>Corynebacterium casei</i> , and development of stable corynebacterial cloning vector.	Y. Tsuchida, S. Kimura, N. Suzuki, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. (in press)
21	Identification of new secreted proteins and secretion of heterologous amylase by <i>C. glutamicum</i> .	N. Suzuki, K. Watanabe, N. Okibe, Y. Tsuchida, M. Inui and H. Yukawa.	Appl. Microbiol. Biotechnol. (in press)
22	Involvement of the LuxR-type transcriptional regulator, RamA, in regulation of expression of the <i>gapA</i> gene encoding glyceraldehyde-3-phosphate dehydrogenase of <i>Corynebacterium glutamicum</i> .	K. Toyoda, H. Teramoto, M. Inui and H. Yukawa.	J. Bacteriol. (in press)
23	Scanning the <i>Corynebacterium glutamicum</i> R genome for high efficiency secretion signal sequences.	K. Watanabe, Y. Tsuchida, N. Okibe, H. Teramoto, N. Suzuki, M. Inui and H. Yukawa.	Microbiology (in press)

■ 2008 International Oral Presentation

	Title	Researchers	Forum
1	Bioethanol and biobutanol production from C6 and C5 sugars	H. Yukawa	Developing and Commercialising Next Generation Biofuels, 13 February 2008
2	Growth-arrested corynebacteria as whole-cell biocatalysts for biochemicals/biofuels production	H. Yukawa	235th ACS National Meeting, 8 April 2008
3	Production of biofuels/biochemicals from soft biomass by the RITE Bioprocess	H. Yukawa	The 5th World Congress on Industrial Biotechnology and Bioprocessing, 29 April 2008
4	Production of isopropanol by metabolically-engineered <i>Escherichia coli</i> .	T. Jojima, M. Inui, and H. Yukawa	The 5th World Congress on Industrial Biotechnology and Bioprocessing, 29 April 2008
5	Expression of <i>Clostridium acetobutylicum</i> butanol synthetic genes in <i>Escherichia coli</i> .	M. Suda, S. Kimura, K. Yasuda, H. Suzuki, H. Toda, S. Yamamoto, S. Okino, N. Suzuki, M. Inui, and H. Yukawa	The 5th World Congress on Industrial Biotechnology and Bioprocessing, 29 April 2008
6	Regulation of Expression of Genes Encoding General Components of the Phosphoenolpyruvate: Carbohydrate Phosphotransferase System (PTS) in <i>Corynebacterium glutamicum</i> .	Y. Tanaka, H. Teramoto, M. Inui, and H. Yukawa	108th ASM General Meeting, 2-5 June 2008
7	Biofuel production from mixed sugars derived from lignocellulosic biomass by the RITE Bioprocess	H. Yukawa	4th International Symposium on Energy, Informatics and Cybernetics, 1 July 2008
8	Transcriptional Regulation of the <i>gapA</i> Gene Encoding Glyceraldehyde-3-phosphate Dehydrogenase in <i>Corynebacterium glutamicum</i> R.	K. Toyoda, H. Teramoto, M. Inui, and H. Yukawa	SIM Annual Meeting, 10-11 August 2008
9	Transcriptional Regulation of the <i>narKGHIJ</i> Operon Involved in Nitrate Respiration System in <i>Corynebacterium glutamicum</i> .	T. Nishimura, H. Teramoto, A.A. Vertès, M. Inui, and H. Yukawa	SIM Annual Meeting, 10-11 August 2008
10	The Group 2 Sigma Factor SigB Positively Regulates Glucose Metabolism under Oxygen-deprived Conditions in <i>Corynebacterium glutamicum</i> .	S. Ehira, H. Teramoto, M. Inui, and H. Yukawa	SIM Annual Meeting, 10-11 August 2008
11	Biofuel production by simultaneous utilization of C5&C6 sugars	H. Teramoto and H. Yukawa	2008 Pacific Rim Summit on Industrial Biotechnology and Bioenergy, 10 September 2008
12	Biofuel production from lignocellulosic biomass by the RITE bioprocess	M Inui and H. Yukawa	Next Generation Biofuelmarkets, 7 October 2008
13	Production of biofuels from C6 & C5 sugars by the RITE bioprocess	H. Yukawa	BIO KOREA 2008, 9 October 2008
14	Take off scenario of Biofuels and Bio-Refinery (Green chemistry: shift from petrochemical)	H. Yukawa	International Environmental Forum commemorating the Centenary of Japanese Immigration in Brazil and the Year of Brazil-Japan Exchange "Japan-Brazil Cooperation to tackle the Global Warming", 13 October, 2008
15	Production of biofuels/biochemicals from C6 & C5 sugars by the RITE bioprocess	H. Teramoto and H. Yukawa	The 13th International Biotechnology Symposium & Exhibition (IBS2008), 15 October 2008
16	Biofuels/Biochemicals production from mixed sugars derived from lignocellulosic biomass by the RITE bioprocess	T. Jojima and H. Yukawa	The 20th Annual Meeting and International Conference of the Thai Society for Biotechnology Thailand-Japan Joint Symposium on Bioproduction by Efficient Utilization of Thai Bioresources, 16 October 2008
17	Production of biofuels by simultaneous utilization of mixed sugars	N. Suzuki and H. Yukawa	AIChE 2008 Annual Meeting, 19 November 2008

■ 2008 International Publication etc.

	Title	Researchers	Forum
1	L-aspartic acid.	S. Okino, M. Inui and H. Yukawa.	The Encyclopedia of Industrial Biotechnology: Bioprocess, Bioseparation, and Cell Technology., John Wiley and Sons, Inc (in press)
2	L-isoleucine.	T. Jojima, M. Inui and H. Yukawa.	The Encyclopedia of Industrial Biotechnology: Bioprocess, Bioseparation, and Cell Technology., John Wiley and Sons, Inc (in press)

Chemical Research Group

■ 2008 Original Paper

	タイトル	研究者	掲載先
1	Removal Properties of Diesel Exhaust Particles by a Dielectric Barrier Discharge Reactor	K.Suzuki, N.Takeuchi, Y.Nihei, K.Madokoro, C.Fushimi, S.Yao, Y.Fujioka	Analytical Science.24, 253-256 (2008)
2	Development of a new PH-swing CO ₂ mineralization process with a recyclable reaction solution	S.Kodama, T.Nishimoto, N.Yamamoto, K.Yogo, K.Yamada	Energy 33 776-784 (2008)
3	PAMAM dendrimer composite membrane for CO ₂ separation : addition of hyaluronic acid in gutter layer and application of novel hydroxyl PAMAM dendrimer	S.Duan, F.A. Chowdhury, T.Kai, S.Kazama, Y.Fujioka	Desalination 234 278-285 (2008)
4	Microstructures formed by secondary growth of fired ZSM-5 seed crystals	S.Uemiyama, A.Tanigawa, T.Koike, Y.Sasaki, T.Ban, Y.Ohya R.Yoshiie, M.Nishimura, N.Yamamoto, K.Yogo, K.Yamada	J Porous Matter 15, 405-410(2008)
5	An Acid Dissociation Constant(pKa)-based Screening of Chemical Absorbents that Preferably Capture and Release Pressurized Carbon Dioxide for Greenhouse Gas Control	K.Tomizaki, S.Shimizu, M.Onoda, Y.Fujioka	Chemistry Letters 7(5), 483-562 (2008)
6	Facile Fabrication of a Novel High Performance CO ₂ Separation Membrane: Immobilization of Poly(amidoamine) Dendrimers in Poly(ethylene glycol) Network	I.Taniguchi, S.Duan, S.Kazama, Y.Fujioka	Journal of Membrane Science 322 277-280(2008)
7	Influence of Polarity and Rise Time of Pulse Voltage Waveforms on Diesel Particulate Matter Removal Using an Uneven Dielectric Barrier Discharge Reactor	C.Fushimi, K.Modokoro, S.Yao, Y.Fujioka, K.Yamada	Plasma Chem Plasma Process 28 511-522(2008)
8	Effects of O ₃ and NO ₂ on Catalytic Oxidation of Diesel PM	S.Yamamoto, S.Yao, S.Kodama, C.Mine, Y.Fujioka	Chemistry Letters 37(9), 998-999(2008)
9	Separation and recovery of carbon dioxide by a membrane flash process	K.Okabe, H.Mano, Y.Fujioka	International Journal of Greenhouse Gas Control 2 485-491 (2008)
10	Development of commercial-sized dendrimer composite membrane modules for CO ₂ removal from flue gas	T.Kai, T.Kouketsu, S.Duan, S.Kazama, K.Yamada	Separation and Purification Technology 63 524-530(2008)
11	Highly Permeable Mesoporous Silica Membranes Synthesized by Vapor Infiltration of Tetraethoxysilane into Non-Ionic Alkyl Poly(oxyethylene)Surfactant Films	M.Miyamoto, K.Yogo, (Department of Engineering Science, Osaka University) K.Nagata, T.Maruo, N.Nishiyama, Y.Gashira, K.Ueyama	Journal of Membrane Science 325 698-703 (2008)
12	Adsorption of Carbon Dioxide on Amine-modified MSU-H Silica in the Presence of Water Vapor	K.Yogo (National Institute of Advanced Industrial Science and Technology(AIST)) N.Hiyoshi (Nihon University) T.Yashima	Chemistry Letters 37(12), 1266-1267 (2008)
13	Oxidation Mechanism of Diesel Particulate Matter in Plasma Discharges	S.Kodama, S.Yao, S.Yamamoto, C.Mine, Y.Fujioka	Chemistry Letters 38(1), 50-51(2009)
14	Investigation of Transition Metal Oxide Catalysts for Diesel PM Removal under Plasma Discharge Conditions	S.Yamamoto, S.Yao, S.Kodama, C.Mine, Y.Fujioka	The Open Catalysis Journal 1,11-16(2008)

■ 2008 Other Paper (e.g., Review, Comment)

	タイトル	研究者	掲載先
1	Separated at Source	Y.Fujioka	The Japan Journal Vol.4 No.10 25-26(2008)
2	SCIENCE WATCH "Biogas Breakthrough"	H.Mano (Taiyo Nippon Sanso Corp.) T.Tomioka	The Japan Journal, Vol.5 No.7 25 (2008)

■ 2008 Oral Presentaion (International Conference)

	タイトル	研究者	掲載先
1	Development of Poly(amidoamine)(PAMAM)Dendrimer Composite Membrane Module for CO ₂ Separation	T.Kai, S.Duan, F. A. Chowdhury, S.Kazama, Y.Fujioka	2008AIChE Spring National Meeting New Orleans,LA 7 April 2008
2	Recent CO ₂ Capture Technology in Japan	M.Onoda	IISI TECHCO 2008 The Westin Bund Center Shanghai 5 May 2008
3	Preparation and H ₂ Separation Properties of Palladium-Mesoporous Silica Composite Membrane	M.Miyamoto, K.Yogo, Y.Fujioka (NAIST) K.Nagata	International Symposium NANOPOROUS MATERIALS-V(NANO-5) Vancouver 27 May 2008
4	Energy contribution analysis in a DBD reactor	S.Yao, S.Kodama, SYamamoto, Y.Fujioka	35th IEEE International Conference on Plasma Science Germany 15 June 2008
5	Immobilization of Poly(amidoamine) Dendrimers in Poly(ethylene glycol) Network for a Novel CO ₂ Separation Membrane	I.Taniguchi, S.Duan, R.Shimizu, S.Kazama, Y.Fujioka	MRS International Materials Research Conference China 10 June 2008
6	Development of novel CO ₂ affinity-enhanced carbon membranes:characterization and CO ₂ separation performance	T.Kai, S.Kazama, Y.Fujioka	2008 International Congress on Membranes and Membrane Processes(ICOM2008) Honolulu 18.July. 2008
7	Basic Geometry of DBD Reactors for Diesel PM Removal	S.Yao, S.Kodama, S.Yamamoto, C.Mine, K.Madokoro, Y.Fujioka	Asia Pacific Confederation of Chemical Engineers(APCCHE) Dalian 5.August 2008
8	Mechanism of Diesel PM Removal in Plasma Discharges	S.Kodama, S.Yao, S.Yamamoto, C.Mine, Y.Fujioka	Asia Pacific Confederation of Chemical Engineers(APCCHE) Dalian 5.August 2008
9	Pulsed Plasma PM Removal from Diesel Exhaust Emissions:Influences of Reaction Conditions	S.Yamamoto,S.Yao, S.Kodama, C.Fushimi, C.Mine, Y.Fujioka (Daihatsu Motor Co)K.Madokoro, K.Naito, Y-H.Kim	Asia Pacific Confederation of Chemical Engineers(APCCHE) Dalian 5.August 2008
10	Hydrogen separation membrane encapsulating Pd nanoparticles in a silica layer	M.Miyamoto, K.Yogo, Y.Fujioka (NAIST) K.Nagata	The 10th International Conferences on Inorganic Membranes(ICIM10) Tokyo 19.August.2008
11	Development of novel CO ₂ affinity-enhanced carbon membranes for CO ₂ separation	T.Kai, S.Kazama, Y.Fujioka	The 10th International Conferences on Inorganic Membranes(ICIM10) Tokyo 20.August.2008
12	OBSERVATION OF PARTICULATE MATTER COMBU STION IN A PULSED DISCHARGE DURATION	S.Yao, S.Kodama, S.Yamamoto, Y.Fujioka	ICPP2008:International Congress on Plasma Physics Fukuoka 10 September.2008
13	EVALUATION OF NOVEL ABSORBENT FOR CO ₂ CAPTURE	K.Goto, H.Okabe, S.Shimizu, M.onoda, Y.Fujioka	20th International Symposium on Chemical Reaction Engineering (ISCRE20) Kyoto 10.September.2008
14	Diesel Aftertreatment System Using Non-Thermal Plasma for Light-Duty Vehicle	K.Naito, Y.Kim, K.Madokoro, T.Ogawa, H.Fujikawa, I.Tan, K.Hasegawa, H.Tanaka, S.Yao	32nd FISITA World Automotive Congress Germany 18.September.2008
15	Development of Innovative gas separation membranes through sub-nanoscale materials control	Y.Fujioka	GCEP Annual Symposium 2008 Palo Alto 3.October.2008
16	Application of a dielectric barrier discharge reactor for diesel PM removal	S.Yao, S.Kodama, S.Yamamoto, C.Mine, Y.Fujioka, (University of Tokyo) C.Fushimi	Eleventh International Conference on Electrostatic Precipitation(ICESP-XI) Hangzhou 23.October.2008
17	An Innovative After-Treatment System for Diesel PM Removal	S.Yao,S.Yamamoto, S.kodama, C.Mine, C.Fushimi, Y.Fujioka (Daihatsu Motor Co)K.Naito, K.Madokoro, Y-H.Kim (JAR)S.Soma, T.Nakajima, G.Sugiyama	ICAT(International Conference on Automotive Technologies) Istanbul 13.November.2008
18	PM Removal System for Diesel Passenger Vehicle Using Non-Thermal Plasma	S.Yamamoto, S.kodama, C.Mine, S.Yao, Y.Fujioka (Daihatsu Motor Co)K.Madokoro, Y-H.Kim, K.Naito, T.Ogawa, H.Fujikawa, K.Hasegawa, H.Tanaka (JAR)S.Soma, T.Nakajima, G.Sugiyama	ICAT(International Conference on Automotive Technologies) Istanbul 13.November.2008
19	Techno-economic evaluation of the coal-based integrated gasification combined cycle with CO ₂ capture and storage technology	R.Nagumo, S.Kazama, Y.Fujioka	9th International Conference on Greenhouse Gas Control Technologies Washington DC 17.November.2008
20	Evaluation Method of Novel Absorbent for CO ₂ Capture	K.Goto, H Okabe, S.Shimizu, M.Onoda, Y.Fujioka	9th International Conference on Greenhouse Gas Control Technologies Washington DC 17.November.2008
21	Development of Novel Tertiary Amine Absorbents for CO ₂ Capture	Firoz Alam Chowdhury, H Okabe, S.Shimizu, M.Onoda, Y.Fujioka	9th International Conference on Greenhouse Gas Control Technologies Washington DC 17.November.2008
22	Separation and recovery of carbon dioxide by a membrane flash process	K.Okabe, S.Kodama, H.Mano, Y.Fujioka	9th International Conference on Greenhouse Gas Control Technologies Washington DC 17.November.2008
23	Mechanism of the Diesel PM Removal by Dielectric Barrier Discharges	S.Kodama, S.Yao,S.Yamamoto, C.Mine, Y.Fujioka	2008 AIChE Annual Meeting Philadelphia 18.November.2008
24	Catalytic Activities of Transistion Metal Oxides for Plasma PM Removal	S.Yamamoto, S.Yao, C.Mine, S.kodama, Y.Fujioka	2008 AIChE Annual Meeting Philadelphia 18.November.2008

CO₂ Storage Research Group■ 2008 Original Paper [CO₂ Geological Storage Project]

	Title	Researchers	Journal
1	Geochemical aspects of a geological storage of CO ₂ : A case study based on a formation water analysis at the Nagaoka pilot-scale CO ₂ injection site	Saeko Mito, Ziqiu Xue, Takashi Osumi	Journal of Geology, vol.117, No.4, 753-767, 2008
2	Case study of geological reactions at the Nagaoka CO ₂ injection site, Japan	Saeko Mito, Ziqiu Xue, Takashi Osumi	International Journal of Greenhouse Gas Control, Vol. 2, No.3, 2008
3	Experimental study on injection of ethanol-bentonite slurry into porous media and its pore plugging behavior	Shigemi Naganawa, Kozo Sato, Eiichi Arakawa	Journal of the Association for Petroleum Technology, Vol.73, No.4, 287-295
4	Lessons from the First Japanese Pilot Project on Saline Aquifer CO ₂ Storage	Ziqiu Xue, Toshifumi Matsuoka	Journal of Geology, vol.117, No.4, 743-752, 2008
5	CO ₂ Geological Storage: International Technology and policy Trends and Research and Development	Ziqiu Xue, Shinsuke Nakao	Journal of Geology, vol.117, No.4, 722-733, 2008

■ 2008 Oral Presentation [CO₂ Geological Storage Project]

	Title	Researchers	Forum
1	Nagaoka, Japan Monitoring/Verification Program Design, Deployment and Case History	Kozo Sato, Tadashi Horie, Daiji Tanase, Tsukasa Yoshimura	Japan Geoscience Union Meeting, May, 2008
2	Time-lapse well logging for monitoring injected CO ₂ in a saline aquifer, Nagaoka	Jiro Watanabe, Saeko Mito, Kozo Sato, Daiji Tanase, Tsukasa Yoshimura	Japan Geoscience Union Meeting, May, 2008
3	Time-lapse crosswell seismic tomography for monitoring CO ₂ geological sequestration in Nagaoka pilot-scale project	Hideki Saito, Hiroyuki Azuma, Kozo Sato, Daiji Tanase, Tsukasa Yoshimura	Japan Geoscience Union Meeting, May, 2008
4	Simulation Study of Iwanohara Pilot Carbon Dioxide Injection	Hiroshi Ohkuma, Yuko Kawata, Kozo Sato, Daiji Tanase, Tsukasa Yoshimura	Japan Geoscience Union Meeting, May, 2008
5	Simulation Study of Iwanohara Pilot Carbon Dioxide Injection	Hiroshi Ohkuma, Yuko Kawata, Kozo Sato, Daiji Tanase, Tsukasa Yoshimura	Japan Geoscience Union Meeting, May, 2008
6	Estimation of CO ₂ saturation considering patchy saturation at Nagaoka	Hiroyuki Azuma, Chisato Konishi, Dai Nobuoka, Ziqiu Xue, Jiro Watanabe	The 70th EAGE (European Association of Geoscientists and Engineers) Conference & Exhibition, June, 2008
7	Experimental study of residual CO ₂ saturation in the sandstones with different pore structures	Keigo Kitamura	European Geophysical Union 2008, April, 2008
8	Nagaoka CO ₂ injection and monitoring project: a gateway of the intimate understanding of CO ₂ behavior in the deep reservoir	Daiji Tanase, Tsukasa Yoshimura	The 33rd International Geological Congress, August, 2008
9	Estimation of CO ₂ Aquifer Storage Potential in Japan	Toshihiro Takahashi, Takashi Ohsumi, Kazuo Nakayama, Kazuo Koide, Hideaki Miida	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
10	CO ₂ Aquifer Storage Capacity Assessment Methodology in Japan: Overview of the Project	Shigetaka Nakanishi, Takumi Shidahara, Yasunobu Mizuno, Tadahiko Okumura, Hideaki Miida, Shin-ichi Hiramatsu	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
11	Comparative evaluation of the CO ₂ aquifer storage capacities across regions: in CO ₂ aquifer Storage Capacity Assessment in Japan	Takumi Shidahara, Toyokazu Ogawa, Takashi Yamamoto, Kazuyuki Yoneyama, Tadahiko Okumura, Tsutomu Hashimoto	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
12	Sensitivity Analysis of CO ₂ Migration in Deep Saline Aquifer of Ise Bay, Japan, Using Heterogeneous and Homogeneous 2D Models Based on Depositional Facies Analysis	Yuko Kawata, Hiroshi Ohkuma, Kazuyuki Yoneyama, Shigetaka Nakanishi, Satoru Yokoi, Tsutomu Hashimoto	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
13	Evaluation of CO ₂ Aquifer storage capacity in the vicinity of a large emission area in Japan: Case history of Osaka Bay	Tsutomu Hashimoto, Shin-ichi Hiramatsu, Takashi Yamamoto, Hiroshi Tanano, Manabu Mizuno, Hideaki Miida	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
14	MW2 Concept of CO ₂ Monitoring for Offshore Reservoirs in Japan	Daiji Tanase, Shigeyuki Suda, Koji Kano, Hironori Furukawa	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
15	Estimation of residual CO ₂ saturation using core flood test	Komei Okatsu, Ryo Ueda	The First International Petroleum Environmental Conference and Exhibition, May 2008
16	RST Saturation Evaluation for CO ₂ Sequestration	Xingwang Yang, Tadashi Horie, Tsukasa Yoshimura	SEG(Society of Exploration Geophysicists)/EAGE (European Association of Geoscientists and Engineers) Summer Research Workshop 2008, September, 2008
17	Key aspects of geochemical trapping at the pilot-scale CO ₂ injection site, Nagaoka, Japan	Saeko Mito, Ziqiu Xue, Takashi Ohsumi	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
18	A monitoring framework for assessing underground mitigation and containment of carbon dioxide sequestered in an onshore aquifer	Kozo Sato, Manabu Mizuno, Saeko Mito, Tadashi Horie, Hiroshi Okuma, Hideki Saito, Jiro Watanabe, Daiji Tanase, Tsukasa Yoshimura	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
19	Case study:trapping mechanisms at the pilot-scale CO ₂ injection site.Nagaoka, Japan	Ziqiu Xue, Saeko Mito, Keigo Kitamura, Toshifumi Matsuoka	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
20	Methodology of CO ₂ aquifer storage capacity assessment in Japan and overview of the project	Shigetaka Nakanishi, Yasunobu Mizuno, Tadahiko Okumura, Hideaki Miida, Takumi Shidahara, Shin-ichi Hiramatsu	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
21	Trapping mechanisms in CO ₂ geological sequestration	Ziqiu Xue, Saeko Mito, Keigo Kitamura, Toshifumi Matsuoka	The 33rd International Geological Congress, August, 2008

	Title	Researchers	Forum
21	Investigation on natural gas behavior in shallow geologic strata: natural analogue of leaked natural gas in the Mobarra gas field, Japan	Shiro Tanaka, Hiroshi Suenaga, Eiji Nakata, Kameichiro Nakagawa, Takumi Shidahara	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
22	Nagaoka CO ₂ injection and monitoring project; a gateway of the intimate understanding of CO ₂ behavior in the deep reservoir	Tsukasa Yoshimura, Daiji Tanase	AIST-KIGAM Joint Workshop on CO ₂ Geological Storage, December, 2008
23	A Sensitivity Study of CO ₂ Mineralization using GEM-GHG Simulator,	Ikuro Okamoto, Saeko Mito, Takashi Ohsumi	The 9th International Conference on Greenhouse Gas Technologies, November, 2008

■ 2008 Others [CO₂ Geological Storage Project]

	Title	Researchers	Forum
1	Estimation of CO ₂ Aquifer Storage Potential in Japan	Toshihiro Takahashi, Takashi Ohsumi, Kazuo Nakayama, Kazuo Koide, Hideaki Miida	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
2	Evaluation of CO ₂ Aquifer storage capacity in the vicinity of a large emission area in Japan: Case history of Osaka Bay	Tsutomu Hashimoto, Shin-ichi Hiramatsu, Takashi Yamamoto, Hiroshi Tanano, Manabu Mizuno, Hideaki Miida	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
3	Sensitivity Analysis of CO ₂ Migration in Deep Saline Aquifer of Ise Bay, Japan, Using Heterogeneous and Homogeneous 2D Models Based on Depositional Facies Analysis	Yuko Kawata, Hiroshi Ohkuma, Satoru Yokoi, Shigetaka Nakanishi, Kazuyuki Yoneyama, Tsutomu Hashimoto	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
4	Storage Capacity Assessment in Japan: Comparative Evaluation of CO ₂ aquifer storage capacities across regions	Toyokazu Ogawa, Takumi Shidahara, Shigetaka Nakanishi, Takashi Yamamoto, Kazuyuki Yoneyama, Tadahiko Okumura, Tsutomu Hashimoto	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
5	A monitoring framework for assessing underground mitigation and containment of carbon dioxide sequestered in an onshore aquifer	Kozo Sato, Saeko Mito, Tadashi Horie, Hiroshi Ohkuma, Hideki Saito, Jiro Watanabe, Tsukasa Yoshimura	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
6	Investigation on natural gas behavior in shallow geologic strata: natural analogue of leaked natural gas in the Mobarra gas field, Japan	Shiro Tanaka, Hiroshi Suenaga, Eiji Nakata, Kameichiro Nakagawa, Takumi Shidahara	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
7	A Sensitivity Study of CO ₂ Mineralization using GEM-GHG Simulator,	Ikuro Okamoto, Saeko Mito, Takashi Ohsumi,	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
8	Natural gas behavior in shallow geologic layers as natural analogues of discharge of CO ₂	Kameichiro Nakagawa, Shiro Tanaka, Hiroshi Suenaga, Eiji Nakata, Yuki Ito	The 9th International Conference on Greenhouse Gas Technologies, November, 2008
9	The seismic tomography image of residual CO ₂ in the porous sandstone	Keigo Kitamura, Ziqiu Xue	The 9th International Conference on Greenhouse Gas Technologies, November, 2008

■ 2008 Original Paper [CO₂ Ocean Sequestration Project]

	Title	Researchers	Journal
1	Public acceptance of the oceanic carbon sequestration	Toru Sato, Norihiro Kamishima	Marine Policy
2	A numerical study with an eddy-resolving model to evaluate chronic impacts in CO ₂ ocean sequestration.	Masuda, Y., Y. Yamanaka, Y. Sasai, M. T. Ohsumi.	International Journal of Greenhouse Gas Control. 2, 89-94, 2008

■ 2008 Oral Presentation [CO₂ Ocean Sequestration Project]

	Title	Researchers	Forum
1	Prediction of Acidification in the Ocean Surface, and Benefits and Risks of the CO ₂ Ocean Sequestration as a Mitigation Technology.	Michimasa Magi	KOBE-TECHNO-OCEAN'08(OTO'08)
2	Methodology for impact assessment of ocean CO ₂ sequestration on deep-sea organisms	Yuji Watanabe	KOBE-TECHNO-OCEAN'08(OTO'08)
3	Effects of CO ₂ Ocean Sequestration on Deep-Sea Animals	Atsushi Ishimatsu, Masahiro Hayashi, Yuki Kojima	KOBE-TECHNO-OCEAN'08(OTO'08)
4	Ecosystem model of deep-sea plankton community for CO ₂ ocean sequestration	Yasuyuki Kishi, Hiroshi Ishida, Yuya Yamamoto, Kisaburo Nakata	KOBE-TECHNO-OCEAN'08(OTO'08)
5	Strategy of environmental assessment for CO ₂ ocean sequestration	Kiminori Shitashima, Yoshiaki Maeda, Takashi Ohsumi	KOBE-TECHNO-OCEAN'08(OTO'08)
6	System Plan of CO ₂ Marine Transport and Release in Deep Waters for Moving-ship Type of CO ₂ Ocean Storage	Junichi Minamiura, Masahiko Ozaki, Sasaki, Masami Mtsuura	KOBE-TECHNO-OCEAN'08(OTO'08)
7	Evaluation of CO ₂ Dilution in Ocean sequestration	Shuichiro Hirai, Shohji Tsushima	KOBE-TECHNO-OCEAN'08(OTO'08)
8	Simulation of 50Mton CO ₂ injection per year into the ocean using an ocean general circulation model	Yoshio Masuda, Yasuhiro Yamanaka	KOBE-TECHNO-OCEAN'08(OTO'08)
9	Numerical Simulation on Mesoscale Diffusion of CO ₂ Sequestered in the Deep Ocean in Practical Scenario	Se-min Jeong, Toru Sato, Baixin Chen	KOBE-TECHNO-OCEAN'08(OTO'08)
10	Observation of emission and Diffusion of natural CO ₂ from seafloor Hydrothermal systems	Kiminori Shitashima	2008 Western Pacific Geophysics Meeting
11	Recent Trend of the Vertical Distribution and the Size Composition of Chlorophyll-A in the Western North Pacific Region	Hiroshi Ishida, Yutaka Watanabe, Joji zaka, Toshiya Nakano, Naoki Nagai, Yuji Watanabe, Nobuhiro Maeda, Michimasa	2008 AGU Fall Meeting

■ 2008 Others [CO₂ Ocean Sequestration Project]

	Title	Researchers	Forum
1	Development of monitoring for the assessment of Carbon Dioxide And Storage(CCS)	Kiminori Shitashima	2008 AGU Fall Meeting
2	NATURAL ANALOGUE FOR OCEAN ACIDIFICATION	Kiminori Shitashima	Second Symposium on The Ocean in a High-CO ₂ World
3	EFFECTS OF HIGH CO ₂ ON DEEP-SEA FISHES	Atsushi Ishimatsu, Masahiro Hayashi, Yuki Kojima	Second Symposium on The Ocean in a High-CO ₂ World
4	HIGH CO ₂ RETAINED FRACTION IN OCEAN SEQUESTRATION ESTIMATED BY A HIGH RESOLUTION MODEL	Yoshio Masuda, Yasuhiro Yamanaka	Second Symposium on The Ocean in a High-CO ₂ World
5	IN SITU ENCLOSURE EXPERIMENT DEVICE FOR ASSESSING DEEP-SEA ECOSYSTEMS WITH HIGH CO ₂ CONCENTRATIONS	Hiroshi H Ishida, Yuji Watanabe, Michimasa Magi, Yoshihisa Shirayama	Second Symposium on The Ocean in a High-CO ₂ World
6	DECREASING OF AGGREGATE SIZE OF MARINE SUSPENDED PARTICLES UNDER HIGH CO ₂ CONDITIONS	Yuji Watanabe, Nobuhiro Maeda, Koh	Second Symposium on The Ocean in a High-CO ₂ World
7	Monitoring strategy for CO ₂ storage in the ocean environment	Kiminori Shitashima	2008 Western Pacific Geophysics Meeting