

第54卷 別 冊

Bulletin of the Graduate School of Engineering
Hiroshima University

広島大学大学院工学研究科

研 究 年 報 2005

既 刊 研 究 報 告	 S 1
既 刊 著 書	 S82
既 登 録 特 許	 S85
博 士 学 位 論 文 要 旨	 S88



広島大学大学院工学研究科

編 集 委 員

委 員 長	河 原 能 久
委 員	張 玉 銀
	加 藤 浩 介
	原 田 耕 一
	向 井 徹 雄

本誌に掲載された記事の無断転載および無断複製を禁じます。

広 島 大 学
大学院工学研究科研究年報2005
第54巻 別冊(2006)

平成18年3月印刷
平成18年3月発行

編集兼 発行者	広島大学大学院工学研究科 東広島市鏡山一丁目4番1号
印刷所	青木印刷所 呉市安浦町内海北二丁目1番6号

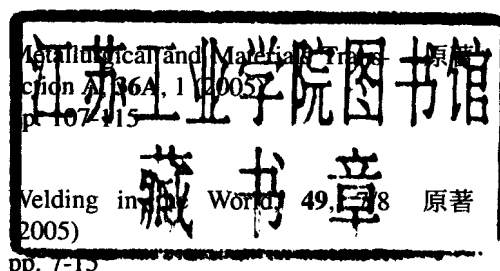
目次

既刊研究報告 (Published Papers)	1
機械システム工学 専攻	1
複雑システム工学 専攻	13
情報工学 専攻	22
物質化学システム 専攻	30
社会環境システム 専攻	50
ナノデバイス・システム研究センター	69
既刊著書 (Published Books)	82
既登録特許 (Registered Patents)	85
博士學位論文要旨 (Abstracts of Doctoral Theses)	88

既刊研究報告 (Published Papers)

A. 機械システム工学 専攻

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A1 レーザ溶接部の高温割れ発生機構と防止策	篠崎 賢二 山本 元道	2004LMP シンポジウム「レーザ溶接の高品質化と新展開」講演論文集, (2005)	総説
A2 A Study on Numerical Analysis of Laser Welding for Estimating Temperature Distribution and Bead Shape	Maher Hassan Mitsuru Kitamura Kenji Shinozaki Motomichi Yamamoto	Transactions of The West-Japan Society of Naval Architects, 109 (2005) pp. 173-184	原著
A3 Study of evaluation method for liquation crack initiation in the HAZ of laser weldment	Motomichi Yamamoto Atsushi Takata Syota Kamikariya Kenji Shinozaki Makoto Shirai	Welding in the world, 49, 9/10 (2005) pp. 49-57	原著
A4 Suggestion Prediction Method of Liquation Cracking in HAZ of Laser Weldment of Ni-base Superalloys Using the Three-Dimensional Thermo-Elastic-Plastic Analysis	Kenji Shinozaki Motomichi Yamamoto	Proceedings of Inter-University Research Seminar on Science and Technology of Welding and Joining, (2005) pp. 247-263	総説
A5 アルミニウム合金材の繰り返し大変形曲げによる亀裂発生強度に関する研究 (その3)	矢島 浩 山本 元道 廣田 一博 石田 欽也 飯塚 智史	西部造船会論文概要集, 110 (2005) pp. 89-94	原著
A6 Investigation of Precipitation Behavior in a Weld Deposit of 11Cr-2W Ferritic Steel	Dejun Li Kenji Shinozaki Hidemasa Harada Kenji Ohishi	Metallurgical and Materials Transactions A, 36A, 1 (2005) p. 107-115	原著
A7 Investigation of dissolution and precipitation behaviors of precipitates in welded joints of high Cr ferritic heat resistant steels	D.J.Li K.Shinozaki	Welding in the World, 49, 7/8 (2005) pp. 7-15	原著
A8 Repair of stress corrosion cracking in overlaying of Inconel 182 by laser surface melting	G.Bao S.Iguro M.Inkyo K.Shinozaki Y.Mahara H.Watanabe	Welding in the World, 49, 7/8 (2005) pp. 37-44	原著
A9 Simulation of role of precipitate in creep void occurrence in heat affected zone of high Cr ferritic heat resistant steels	Dejun Li K. Shinozaki	Science and Technology of Welding and Joining, 10, 5 (2005) pp. 544-549	原著
A10 Influence of heat treatments and chemical composition on SCC susceptibility during repairing procedure of overlaying of Inconel 182	G. Bao K. Shinozaki S. Iguro M. Inkyo Y. Mahara H. Watanabe	Science and Technology of Welding and Joining, 10, 6 (2005) pp. 706-716	原著



論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A11 Suggestion of Prediction Method of Liquation Cracking in HAZ of Laser Weldment of Ni-base Superalloys Using the Three-Dimensional Thermo-Elastic-Plastic Analysis	Kenji SHINOZAKI Motomichi MAMOTO	Inter-University Research Seminar, Tsinghua University, Beijing, China, August 15-16, (2005) pp. 247-263	原著
A12 Microstructure and Mechanical Property of MoSi ₂ Based Composites	S.P. Lee J. K. Lee B. H. Min Y. S. Shin D. S. Bae J. Y. Park Gen Sasaki	Mat. Sci. Forum., 475 , 479 (2005) pp. 707-710	原著
A13 炭素繊維とアルミニウム界面反応に与える繊維表面構造の影響	張光智 松木一弘 佐々木元 柳沢平	日本金属学会誌, 169 , 11 (2005) pp. 983-988	原著
A14 Effect of Ultrasonic Vibration on Infiltration of Nickel Porous Preform with Molten Aluminum Alloys	Y. B. Choi Gen Sasaki Kazuhiro Matsugi Osamu Yanagisawa	Mat. Trans., 146 , 10 (2005) pp. 2156-2158	原著
A15 Anodic Bonding and its Interfacial Reaction between Metals and Ionic Conductor	Gen Sasaki Kazuhiro Matsugi Osamu Yanagisawa	Proc. of 2nd JSME/ASME International Conference on Materials and Processing 2005, paper MMC-03 (CD-ROM) JSME05, 203 (2005) pp. 1-5	原著
A16 Simulation of Infiltration of Molten Alloy to Porous Preform by Low Pressure	Y.-B. Choi Gen Sasaki Kazuhiro Matsugi N. Sorida S. Kondoh T. Fujii Osamu Yanagisawa	Proc. of 2nd JSME/ASME International Conference on Materials and Processing 2005, paper MMC-06 (CD-ROM), JSME05, 203 (2005) pp. 1-6	原著
A17 Tensile Strength of Aluminum Borate Whisker/AZ91D Magnesium Alloy Composites Prepared by Comp-casting Process	Gen Sasaki T. Shinoda N. Fuyama Kazuhiro Matsugi Osamu Yanagisawa	Proc. of 2nd JSME/ASME International Conference on Materials and Processing 2005, paper MMC-09 (CD-ROM), JSME05, 203 (2005) pp. 1-5	原著
A18 Effect of Fiber Surface Structure on Interfacial Reaction Between Carbon Fiber and Aluminum	Kuang-Chih Chang Kazuhiro Matsugi Gen Sasaki Osamu Yanagisawa	JSME International Journal. Series A, 148 , 4 (2005) pp. 205-209	原著
A19 Structural evolution of turbostratic carbon nitride after treated by pulse discharge	Y.C.Zhao D.L.Yu Osamu Yanagisawa Kazuhiro Matsugi Y.J.Tian	Diamond and related Materials, 14 , 10 (2005) pp. 1700-1704	原著
A20 Conduction Type Evolution during Eutectoid Decomposition of Mn-Added a - Fe ₂ Si ₅ Alloy	J.X.Jiang Kazuhiro Matsugi Gen Sasaki Osamu Yanagisawa	Scripta Materialia, 153 , 6 (2005) pp. 707-711	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A21 Effect of Mn or Co Addition on Kinetics of Eutectoid Decomposition in Sintered α -Fe ₂ Si ₅ Alloys	J.X.Jiang Kazuhiro Matsugi Gen Sasaki Osamu Yanagisawa	Materials Trans, JIM, 146 , 6 (2005) pp. 1407-1412	原著
A22 Resistivity Study of Eutectoid Decomposition Kinetics of α -Fe ₂ Si ₅ Alloy	J.X.Jiang Kazuhiro Matsugi Gen Sasaki Osamu Yanagisawa	Materials Trans, JIM, 146 , 3 (2005) pp. 720-725	原著
A23 Turbotstratic Carbon Nitride Prepared by Pyrolysis of Melamine	Y. C. Zhao D. L. Yu H.W.Zhou Y.J.Tian Osamu Yanagisawa	Journal of Materials Science Letters, 140 (2005) pp. 2645-2647	原著
A24 Thermoelectric properties of α -FeSi ₂ with Si dispersoids formed by decomposition of β -Fe ₂ Si ₅ based alloys	J.X.Jiang T. Sasakawa Kazuhiro Matsugi Gen Sasaki Osamu Yanagisawa	J. Alloys and Compounds, 391 , 1-2 (2005) pp. 115-122	原著
A25 Fabrication of the Aluminum Alloy Matrix Composite by Ultrasonic Vibration Technique	Gen Sasaki J. Adachi Y. -B. Choi J. Pan, T. Fujii Kazuhiro Matsugi Osamu Yanagisawa	Mat. Sci. Forum, , 475 , 479 (2005) pp. 921-924	原著
A26 Fracture at former particle boundaries	Hidenori Kuroki	Proceedings of the International Conference DF PM 2005, Deformation and Fracture in Structural PM Materials , (2005) pp. 191-199	総説
A27 Structures of Former Particle Boundaries	Hidenori Kuroki Hiroyuki Y. Suzuki	Euro PM2005 Proceedings, 1 (2005) pp. 21-26	総説
A28 高遠心力場での微細粉末の高密度充填技術－高速遠心成形法－	鈴木 裕之	セラミックス, 40 , 3 (2005) pp. 189-193	総説
A29 Mechanical Properties of Sintered Si ₃ N ₄ from Powder Produced by Fluidized-Bed Direct Silicon Nitridation	Hiroyuki Y. Suzuki Shunzo Tashima Shoichi Kimura	J. Ceram. Soc. Japan, 113 , 12 (2005) pp. 774-777	原著
A30 Impurity Effects on the Formation of Grain Boundaries during Solidification of Solar Cell Grade Silicon by in situ HREM Observation	Hiroshi Fukushima Isamu Kuchiwaki Takahiro Hirabayashi	31st IEEE Photovoltaic Specialists Conference 2005, IEEE 05CH37608C (2005) pp. 1245-1248	原著
A31 In Situ HREM Studies of Grain Boundary Formation during Solidification of B-Doped Silicon	Hiroshi Fukushima Isamu Kuchiwaki Takahiro Hirabayashi	Materials Science Forum, 475-479 (2005) pp. 3875-3878	原著
A32 TEM Studies of Grain Boundary Structure in a Cast Polycrystalline Silicon	Isamu Kuchiwaki Takahiro Hirabayashi Hiroshi Fukushima	Materials Science Forum, 475-479 (2005) pp. 1673-1676	原著
A33 FT-ICR によるシリコンクラスターイオン (Sin ⁺ , n=10-30) とエチレン分子の化学反応特性	河野 正道 井上 修平 丸山 茂夫	日本機会学会論文集 (B 編), 71 , 704 (2005) pp. 1148-1154	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A34 コバルトクラスターとエタノールの反応	井上 修平 丸山 茂夫	日本機化学会論文集 (B 編), 71 , 707 (2005) pp. 1909-1914	原著
A35 遷移金属クラスター (鉄, コバルト, ニッケル) とエタノールの反応とその傾向	井上 修平 丸山 茂夫	日本機化学会論文集 (B 編), 71 , 707 (2005) pp. 1915-1920	原著
A36 Synthesis of single-wall carbon nanotubes from alcohol using Fe/Co, Mo/co, Rh/Pd catalysts	Shuhei Inoue Takeshi Nakajima Yoshihiro Kikuchi	Chemical Physics Letters, 406 , 1-3 (2005) pp. 184-187	原著
A37 Diameter control and growth mechanism of single-walled carbon nanotubes	Shuhei Inoue Yoshihiro Kikuchi	Chemical Physics Letters, 410 , 4-6 (2005) pp. 209-212	原著
A38 Hydrothermal Treatment of Cellulose as a Pretreatment for Ethanol Fermentation: Cellulose Hydrolysis Experiments	Takuya Yoshida Hiroshi Nonaka Yukihiko Matsumura	Journal of the Japan Institute of Energy, 84 , 7 (2005) pp. 544-548	原著
A39 超臨界水を用いたバイオマスのガス化	松村 幸彦	高温高压流体技術研究会レター, 18 (2005) pp. 1-7	総説
A40 日本の森林の有効利用ーエネルギー学としてのアプローチー	松村 幸彦 美濃輪 智朗 堀尾 正靱	J. Jpn. Inst. Energy, 84 , 12 (2005) pp. 958-966	総説
A41 日本の森林の有効利用ー廃棄物との共処理を用いた地域システムの検討ー	松村 幸彦 石田 宏洋 大谷 繁 岡田 久典 泊 みゆき 日野 俊之	J. Jpn. Inst. Energy, 84 , 12 (2005) pp. 985-989	総説
A42 日本の森林の有効利用ー地域経済における政策, 方向性提案ー	泊 みゆき 石田 宏洋 大谷 繁 岡田 久典 日野 俊之 松村 幸彦	J. Jpn. Inst. Energy, 84 , 12 (2005) pp. 990-996	総説
A43 Effect of methanol and acetone addition on heat transfer to turbulent flow of super-critical water	Yukihiko Matsumura Nobuyuki Mori Yoshihiro Kikuchi	Thermal Sci. Eng., 13 , 3 (2005) pp. 1-5	原著
A44 Biomass gasification in near- and super-critical water: Status and prospects	Yukihiko Matsumura Tomoaki Minowa Biljana Potic Sascha R.A. Kersten Wolter Prins Willibrordus P.M. van Swaaij Bert van de Beld Douglas C. Elliott Gary G. Neuenschwander Andrea Kruse Michael J. Antal, Jr.	Biomass and Bioenergy, 29 , 4 (2005) pp. 269-292	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A45 Current situation and prospect of biomass utilization in Japan	Yukihiko Matsumura Shin-ya Yokoyama	Biomass and Bioenergy, 29 , 5 (2005) pp. 304-309	原著
A46 The scale of biomass production in Japan	Yukihiko Matsumura Takashi Inoue Keiichi Komoto Satoshi Hirata Kenichiro Hada Katsura Fukuda Tomoaki Minowa Hiromi Yamamoto	Biomass and Bioenergy, 29 , 5 (2005) pp. 321-330	原著
A47 Woody biomass resources and conversion in Japan: The current situation and projections to 2010 and 2050	Takuyuki Yoshioka Satoshi Hirata Yukihiko Matsumura Kinya Sakanishi	Biomass and Bioenergy, 29 , 5 (2005) pp. 336-346	原著
A48 Amount, availability, and potential use of rice straw (agricultural residue) biomass as an energy resource in Japan	Yukihiko Matsumura Tomoaki Minowa Hiromi Yamamoto	Biomass and Bioenergy, 29 , 5 (2005) pp. 347-354	原著
A49 Evaluation of supply potential of energy crops in Japan considering cases of improvement of crop productivity	Hiromi Yamamoto Yukihiko Matsumura Shigeki Sawayama	Biomass and Bioenergy, 29 , 5 (2005) pp. 355-359	原著
A50 バイオエタノール精製プロセスの合理化	岩崎 博 野中 寛 松村 幸彦 山田 興一	J. Jpn. Inst. Energy, 84 , 10 (2005) pp. 852-860	原著
A51 液体パルスデトネーションエンジンの推力特性	八房 智顕 遠藤 琢磨 滝 史郎	日本燃焼学会誌, 47 , 140 (2005) pp. 90-96	総説
A52 回転管状火炎における水素添加による希薄燃焼の改善 (燃焼ガス濃度および燃焼ガス組成)	酒井 幸夫 太田 宏史 石塚 悟 石原 敦	日本機械学会論文集 (B編), 71 , 701 (2005) pp. 282-287	原著
A53 乱流燃焼場の PIV 計測と乱れスケールの算出	山本 和弘 井上 聡 山下 博史 下栗 大右 石塚 悟 小沼 義昭	日本機械学会論文集 (B編), 71 , 711 (2005) pp. 2741-2747	原著
A54 急速混合型管状火炎燃焼の燃焼ガス特性	下栗 大右 石塚 悟	日本燃焼学会誌, 47 , 142 (2005) pp. 300-307	原著
A55 Flow Field in Swirl-Type Tubular Flame Burner	Yuyin Zhang Daisuke Shimokuri Yoshihisa Mukae Satoru Ishizuka	JSME International Journal, Series B, 48 , 4 (2005) pp. 830-838	原著
A56 PIV Measurements of Highly Turbulent Combustion Turbulent Premixed	Kazuhro Yamamoto Satoshi Inoue Hiroshi Yamashita Daisuke Shimokuri Satoru Ishizuka Yoshiaki Onuma	Proc. Fifth Asia-Pacific Conference on Combustion., (2005) pp. 389-392	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A57 直噴ディーゼル機関におけるスプリット噴射パターンが燃焼・排気性能に与える影響	秋葉 貞洋 西田 恵哉	日本マリンエンジニアリング学会誌, 40 , 1 (2005) pp. 123-128	原著
A58 Enhancement of Stratified Charge for DISI Engines through Split Injection (Effect and Its Mechanism)	Tie Li Keiya Nishida Yuyin Zhang Tuyoshi Onoe Hiroyuki Hiroyasu	JSME International Journal, Series B, 48 , 4 (2005) pp. 687-694	原著
A59 Breakup Process of Pre-Swirl Spray in D.I. Gasoline Injector by LIF Imaging Technique	Jeekeun Lee Byungjoon Rho Keiya Nishida	Proceedings of International Conference for Mechanical and Automotive Technologies 2005, (2005) pp. 127-133	原著
A60 An Analysis of Initial Spray Breakup Process of D.I. Gasoline Spray by LIF Image Processing	Jeekeun Lee Keiya Nishida Byungjoon Rho	CD-ROM Proceedings of the Sixth KSME-JSME Thermal and Fluids Engineering Conference, (2005) pp. 1-8	原著
A61 Effect of Hole Geometry on Spray and Mixture Properties of Hole Type Injector for DISI Engine	Jun Kanzaki Kiyotaka Sato Masahisa Yamakawa Keiya Nishida	Proceedings of ILASS-Asia 2005: the 10th Annual Conference on Liquid Atomization and Spray Systems - Asia, (2005) pp. 48-55	原著
A62 A Consideration of Depth of Field Effects in Droplet Sizing of Pre-Swirl Spray by Laser Sheet Imaging	Jeekeun Lee Keiya Nishida Byoungjoon Rho	Proceedings of ILASS-Asia 2005: the 10th Annual Conference on Liquid Atomization and Spray Systems - Asia, (2005) pp. 87-95	原著
A63 Combustion and Emission Characteristics of D.I. Diesel Engine under Split Injection Strategy	Sadahiro Akiba Keiya Nishida Xinyun Zi	CD-ROM Proceedings of ISME Tokyo 2005: the Seventh International Symposium on Marine Engineering Tokyo 2005, (2005) pp. 1-5	原著
A64 Total In-Cylinder Gas Sampling Experiment on Emission Formation Processes in a D.I. Diesel Engine	Kazunori Hirabayashi Katsuya Marushita Keiya Nishida	CD-ROM Proceedings of the 18th Internal Combustion Engine Symposium (International) in Jeju, Korea, 12 (2005) pp. 1-5	原著
A65 Simultaneous Measurement Technique for Droplet Size and Velocity and Its Application to Liquid Blob Breakup Process of Pre-Swirl Spray	Jeekeun Lee Keiya Nishida Byungjoon Rho Kyukeun Song	CD-ROM Proceedings of the 18th Internal Combustion Engine Symposium (International) in Jeju, Korea, 72 (2005) pp. 1-6	原著
A66 Effect of Split Injection on Flow Fields of D.I. Gasoline Spray and Entrained Ambient Air	Tsuyoshi Onoe Tadashi Tadokoro Keiya Nishida Jeekeun Lee	CD-ROM Proceedings of the 18th Internal Combustion Engine Symposium (International) in Jeju, Korea, 73 (2005) pp. 1-6	原著
A67 PIV による巡回型管状火炎バーナ内の流速測定	張 玉銀 下栗 大右 向 喜央 石塚 悟	広島大学大学院工学研究科研究報告, 54 , 1 (2005) pp. 1-7	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A68 Possible application of carbon nanotubes to the field emission electron source for portable betatrons	Takeshi Ohnishi Ichita Endo Kenji Hayashi Akitsugu Kohara Takuo Yoshida Gennady Lukyanovich Chakhlov Fumitaka Nishiyama	Nucl. Instr. and Meth. in Phys. Res., A539 (2005) pp. 16-24	原著
A69 Fast Numerical Calculation for a Set of Nonlinear Rate Equations: Application to Rapid Ionization Phase in a Plasma	T. Oda S. Namba K. Takiyama U. Furukane	Jpn. J. Appl. Phys., 44 , 11 (2005) pp. 8118-8124	原著
A70 Role of L-Histidine in Conferring Tolerance to Ni ²⁺ in <i>Saccharomyces cerevisiae</i> Cells	Ileana Cornelia Farcasanu Masaki Mizunuma Fumitaka Nishiyama Tokichi Miyakawa	Biosci. Biotechnol. Biochem., 69 , 12 (2005) pp. 2343-2348	原著
A71 Atmospheric Observation of OH Radical Reactions with Atomic Hydrogen Produced in Plasmas by Laser-Induced Fluorescence Spectroscopy	K. Takiyama S. Namba T. Yamasaki J. H. KWON2 R. E. Park H. Nijima	Proceedings of the 7th Conference on Atmospheric Spectroscopy Applications, (2005) pp. 245-250	原著
A72 Spectroscopic Investigation of Atomic Hydrogen Generation in Atmospheric Pressure Plasma Device	H. Nojima R.E. Park J.H. Kwon S. Namba K.Takiyama	Proceedings of 2nd International Workshop on Cold Atmospheric Pressure Plasmas: Source and Applications, (2005) pp. 110-113	原著
A73 Proton-neutron configurations in ^{236g.m} Am and its EC-decay daughter ²³⁶ Pu	M. Asai M. Sakama K. Tsukada S. Ichikawa H. Haba I. Nishinaka Y. Nagame S. Goto Y. Kojima Y. Oura H. Nakahara M. Shibata K. Kawade	Eur. Phys. J. A, 23 (2005) pp. 395-400	原著
A74 β -decay half-lives of new neutron-rich rare-earth isotopes ¹⁵⁹ Pm, ¹⁶² Sm and ¹⁶⁶ Gd	S.Ichikawa M. Asai K. Tsukada H. Haba Y. Nagame M. Shibata M. Sakama Y. Kojima	Phys. Rev. C, 71 (2005) pp. 067302	原著
A75 黒い雨に含まれた原爆フォールアウトを追って	静岡 清	広島平和記念資料館研究報告, 第2号 (2005) pp. 1-7	総説

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A76 原爆ドームの残留放射能	静間 清	主任者ニュース, 第 11 号 (2005) pp. 12-15	総説
A77 Design and Development of Spring-Link Mechanism with the Constant Repulsive Force Characteristics	Kazuki Kaneoka Noritoshi Nakagawa Yasuhisa Sekiguchi	Proc. of the First International Conference on Design Engineering and Science 2005, (2005) pp. 305-310	原著
A78 Acoustic Cavitation in the Cylinder Piston Ultrasonic Radiation Field	Noritoshi Nakagawa Chaoqun Wu Masaya Fujihara	Proc. of the Asia-Pacific Vibration Conference, (2005) pp. 318-323	原著
A79 Removal of the Fouling inside a Pipe Using Ultrasonic Waves	Noritoshi Nakagawa Masaya Fujiwara Chaoqun Wu Jun Satonobu	Proc. of the First International Symposium on Advanced Technology of Vibration and Sound, (2005) pp. 190-195	原著
A80 Study on Phase Lag on Movement of Permanent Magnets	Shinichiro Maeda Etsunori Fujita Maki Tanaka Yoshimi Enoki Noritoshi Nakagawa	Proc. of the First International Symposium on Advanced Technology of Vibration and Sound, (2005) pp. 293-297	原著
A81 An Experimental Study on the Effect of the Vibration Energy Flow by the Welding Characteristics	Young-Hun Yu Noritoshi Nakagawa	Proc. of the First International Symposium on Advanced Technology of Vibration and Sound, (2005) pp. 337-342	原著
A82 Rolling Bearing Diagnostics Based on Wavelet Analysis	Yugo Itakura Yasuhisa Sekiguchi Noritoshi Nakagawa	Proc. of the First International Conference on Design Engineering and Science 2005, (2005) pp. 157-162	原著
A83 Effect of Biodegradable Oil on Surface Failure of Spur Gears	Kazuteru Nagamura Kiyotaka Ikejo Koki Takeda	Proceeding of ICMDT2005 Seoul The International Conference on Manufacturing, Machine Design and Tribology (Seoul, KOREA), (2005)	原著
A84 Friction Loss of Non-Involute Tooth Profile Helical Gears	Kiyotaka Ikejo Kazuteru Nagamura Ryo Nakatsukasa Florin Gabriel Tutulan	Proceedings of International Conference on Gears, VDI-Berichte (Garching near Munich, Germany), 1904 (2005) pp. 1487-1503	原著
A85 Friction Loss of Non-Involute Tooth Profile Gears	Kiyotaka Ikejo Kazuteru Nagamura Florin Gabriel Tutulan	Proceedings of IDETC/CIE 2005 ASME 2005 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (Long Beach, California USA), ASME Paper No. DETC2005-84148, (2005)	原著
A86 Design and Performance of Trochoid Gear Pumps	Kazuteru Nagamura Kiyotaka Ikejo Yo Morotomi	Proceedings of The 1st International Conference on Design Engineering and Science (ICDES2005) (Vienna, AUSTRIA), (2005) pp. 133-138	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A87 歯元の亀裂発生と折損寿命のばらつき	永村和照	日本機械学会 RC-205 歯車装置に関する実用技術革新のための調査研究分科会研究報告書, (2005) pp. 13-17	技術報告
A88 生分解性潤滑油と歯面損傷	永村和照	日本機械学会 RC-205 歯車装置に関する実用技術革新のための調査研究分科会研究報告書, (2005) pp. 230-231	技術報告
A89 Designing a Low-Noise Gearbox by Using Vibration and Sound-Radiation Analysis of a Gear System	Eiichirou Tanaka Haruo Houjoh	Proceedings of the First International Symposium on Advanced Technology of Vibration and Sound (VSTech2005) , (2005) pp. 35-40	原著
A90 Study on Dynamic Balance and Prolonged Walk for Development of Active Auxiliary Walk-Implement	Tadaaki Ikehara Eiichirou Tanaka Takanobu Tamiya Naoki Fukaya Ryozo Nemoto	Proceedings of ICMDT2005 Seoul The International Conference on Manufacturing, Machine Design and Tribology (Seoul, KOREA), (2005)	原著
A91 Contact Stress State on Tooth Surfaces of Crossed Helical Gears	Ema Tamura Ryozo Nemoto Eiichirou Tanaka Hideo Takahashi	Proceedings of ICMDT2005 Seoul The International Conference on Manufacturing, Machine Design and Tribology (Seoul, KOREA), (2005)	原著
A92 歯車装置の振動・騒音解析手法と設計への適用	田中 英一郎	機械設計, 49 , 8 (2005) pp. 70-75	総説
A93 TS 波と斜行波によって励起された圧縮性境界層の遷移機構に関する研究	前川 博 渡辺 大輔 尾崎 幸玄	ながれ, 24 , 5 (2005) pp. 543-551	原著
A94 Supersonic Plane Jet at High Convective Mach Number	Daisuke Watanabe Hiroshi Maekawa Yuichi Matsuo	Proc. of International Conference on Jets, Wakes and Separated Flows (ICJWS-2005), (2005) pp. 189-194	原著
A95 Acoustic Wave Generation in a Compressible Wake	Hiroshi Maekawa Takashi Takiguchi Daisuke Watanabe	Proc. of International Conference on Jets, Wakes and Separated Flows (ICJWS-2005), (2005) pp. 783-788	原著
A96 Acoustic wave radiation due to coherent vortex motions in a supersonic wake (Invited lecture)	Hiroshi Maekawa	Proc. of 19th-Symposium of computational fluid dynamics., (2005)	原著
A97 Self-improving System for Assembly Sequence Planning	Takeshi Murayama Toru Eguchi Fuminori Oba	SICE2005 Proceedings, (2005) pp. 884-889	原著
A98 Production Planning and Simulation for Reverse Supply Chain	Takeshi Murayama Mitsunobu Yoda Toru Eguchi Fuminori Oba	Proceedings of The 3rd International Conference on Leading Edge Manufacturing in the 21st Century(LEM21), 05-204 (2005) pp. 385-390	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A99 Adaptive Production Planning by Information Sharing for Reverse Supply Chain	Takeshi Murayama Mitsunobu Yoda Toru Eguchi Fuminori Oba	Proceedings of 4th International Symposium on Environmentally Conscious Design and Inverse Manufacturing (EcoDesign2005), (2005)	原著
A100 ライフサイクル工学	村山 長	システム制御情報学会誌, 49 , 3 (2005) pp. 108-109	総説
A101 Immobilization Quaternary Ammonium Chloride on the Surface of Titan and Its Effects on Microbial Biofilm Formation in Vitro	Hiroki Nikawa Kazuhiro Ishida Taizo Hamada Takahiro Satoda Takeshi Murayama Toshinobu Takemoto Mistuhiko Tamamoto Hideaki Tajima Saiji Shimoe Hitomi Fujimoto Seicho Makihira	Dental Materials Journal, 24 , 4 (2005) pp. 570-582	原著
A102 遺伝的アルゴリズムと優先規則の融合による動的スケジューリング	江口 透 大場史憲 小崎慎太郎	日本機械学会論文集 C 編, 71 , 703 (2005) pp. 1047-1053	原著
A103 Dynamic Job Shop Scheduling Using the Mixture of a Genetic Algorithm and a Priority Rule	Toru Eguchi Masashi Dougakiuchi Fuminori Oba Takeshi Murayama	Proceedings of the 18th International Conference on Production Research, (2005)	原著
A104 Dynamic Scheduling with Processing Time Uncertainty Using the Mixture of Real-time Scheduling and Periodic Optimization	Toru Eguchi Fuminori Oba Shintarou Kozaki Takeshi Murayama	Proceedings of SICE Annual Conference 2005, (2005)	原著
A105 部分空間法を用いた連続時間ウィナー型非線形モデルの同定	増淵 泉 村井 和弘	システム制御情報学会論文誌, 18 , 2 (2005) pp. 43-50	原著
A106 Matrix Inequality Conditions for Dissipativity of Continuous-Time Descriptor Systems and Its Application to Synthesis of Control Gains	Izumi Masubuchi	Proceedings of the 16th IFAC World Congress, (2005)	原著
A107 ディスクリプタ表現に基づくゲインスケジューリング補償器の設計: 飛行制御系設計への適用による有効性の検証	増淵 泉 嘉藤 潤 佐伯 正美 小原 敦美	計測自動制御学会論文集, 41 , 1 (2005) pp. 53-60	原著
A108 H-infinity Control of Descriptor Systems Based on Realization-Independent LMIs	Izumi Masubuchi	Proceedings of the SICE Annual Conference 2005, (2005) pp. 2996-3000	原著
A109 Synthesis of Output Feedback Controllers for Descriptor Systems Satisfying Closed-Loop Dissipativity	Izumi Masubuchi	Proceedings of the 44th IEEE Conference on Decision and Control and European Control Conference 2005, (2005) pp. 5012-5017	原著
A110 ロバスト行列不等式のシステム制御への応用	増淵 泉 小原 敦美	計測と制御, 44 , 8 (2005) pp. 561-567	総説

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A111 Optimal Design of a Feedback Controller that Achieves Output Regulation in the Presence of Actuator Saturation	Nobutaka Wada Daisuke Sugiyama Masami Saeki	Proceedings of the 44th IEEE Conference on Decision and Control and European Control Conference 2005, (2005) pp. 7576-7580	原著
A112 l_{∞} Performance Analysis of Feedback Systems with Saturation Nonlinearities: An Approach Based on Polytopic Representation	Nobutaka Wada Tomonori Oomoto Masami Saeki	Proceedings of the American Control Conference, (2005) pp. 3403-3408	原著
A113 Local Output Regulation of Feedback Systems with Saturation Nonlinearities	Nobutaka Wada Daisuke Sugiyama Masami Saeki	Proceedings of the SICE Annual Conference 2005, (2005) pp. 683-688	原著
A114 制御構造制約のある H_{∞} 制御問題に対する P I D 制御器設計	佐伯 正美	計測自動制御学会論文集, 4 1, 2 (2005) pp. 1 4 9 - 1 5 6	原著
A115 Fixed structured PID controller design for standard H_{∞} control problem	Masami Saeki	Proceedings of the 16th IFAC World Congress, (2005)	原著
A116 Parameter space PID design based on simulation and its application	Masami Saeki Akihisa Takahashi	Proceedings of the 44th IEEE Conference on Decision and Control, and the European Control Conference, (2005) pp. 7241-7246	原著
A117 レーザフォーミング加工に関する基礎的研究 (第 2 報)	千徳 英介 上田 隆司 山田 啓司 細川 晃	精密工学会誌, 71, 4 (2005) pp. 481-485	原著
A118 Temperature Measurement in Laser Forming of Sheet Metal	Takashi Ueda Eisuke Sentoku Keiji Yamada Akira Hosokawa	Annals of the CIRP, 54, 1 (2005) pp. 179-182	原著
A119 Hardmilling with CBN and Coated Tools	Akira Hosokawa M Okada Ryutaro Tanaka Keiji Yamada Takashi Ueda	Proc. of third Int. Conf. of Leading Edge Manufacturing in 21st. Century, (2005) pp. 497-500	原著
A120 非金属介在物を利用した片状黒鉛鋳鉄高速切削時の快削化 - 高速旋削加工時におけるサーメット工具への摩耗抑制効果 -	古屋 諭 尾添 伸明 臼杵 年 山根 八洲男	精密工学会誌, 71, 6 (2005) pp. 750-755	原著
A121 焼入れ焼結鋼の穴加工 (第 1 報) 焼入れ焼結鋼穴加工時の加工特性 -	臼杵 年 山根 八洲男 鳴瀧 則彦	精密工学会誌, 71, 7 (2005) pp. 931-934	原著
A122 焼入れ焼結鋼の穴加工 (第 2 報) 被削材硬さが穴加工性及びドリル折損に及ぼす影響 -	臼杵 年 山根 八洲男 鳴瀧 則彦	精密工学会誌, 71, 8 (2005) pp. 995-999	原著
A123 高速断続切削時の工具摩耗と切削温度	臼杵 年 山根 八洲男 鳴瀧 則彦	精密工学会誌, 71, 10 (2005) pp. 1303-1308	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A124 Tool Life Detecting System using Damage Sensor-integrated Insert	Katsuhiko Sekiya Yasuo Yamane Ayumu Torimoto	Proc. of the LEM21 Int. Conf. on Leading Edge Manufacturing in 21st Century, 3 (2005) pp. 915-920	原著
A125 Influence of cyclic deformation on shape memory characteristics of Ti-Ni-Cu alloys fabricated by pulse-current pressure sintered method	H. Kyogoku T. Kadomura S. Komatsu F. Yoshida T. Sakuma	Materials Science Forum, 475-479 (2005) pp. 1961-1964	原著
A126 板成形中の金型たわみを考慮したスプリングバックの有限要素解析	薦森 秀夫 吉田 総仁	塑性と加工, 46 , 532 (2005) pp. 407-411	原著
A127 マイクロインデンテーション, 有限要素法解析および最適化手法を用いた鉛フリーはんだの粘塑性特性値同定	濱崎 洋 Vassili V. Toropov 新畠 数洋 吉田 総仁	塑性と加工, 46 , 532 (2005) pp. 397-401	原著
A128 アルミニウム合金板の引張り曲げ破壊限界	吉田 正敏 吉田 総仁 小西 晴之 福本 幸司	塑性と加工, 46 , 536 (2005) pp. 859-863	原著
A129 Identification of viscoplasticity properties of individual phases in lead-free solder alloy by depth-sensing microindentation	Hiroshi Hamasaki Kazuhiro Shinbata Fusahito Yoshida	Materials Transactions, 46 , 12 (2005) pp. 3073-3076	原著
A130 Identification of Plasticity Parameters of Metallic Coatings by means of Depth-Sensing Micro-Indentation	H. Hamasaki F. Yoshida	Proceedings of International Conference on Advanced Manufacture (ICAM2005) (CD-ROM), (2005)	原著
A131 A model of viscoplasticity describing yield-point phenomena and its numerical simulation applications	Fusahito Yoshida	Proc. 11th Int. Symp. on Plasticity and Its Current Applications, (2005) pp. 529-530	原著
A132 Optimum drawbead setting for spring-back control in sheet metal forming	S. Abe R. Hino F. Yoshida	Proc. 8th Int. Conf. on Technology of Plasticity (CD-ROM), (2005)	原著
A133 Optimization of blank design for sheet metal forming process using high and low fidelity simulation	R. Hino Y. Asano F. Yoshida V.V. Toropov	Proc. 8th Int. Conf. on Technology of Plasticity (CD-ROM), (2005)	原著
A134 材料の塑性挙動のモデリングと加工／構造解析への応用	吉田 総仁	塑性と加工, 46 , 539 (2005) pp. 1126-1131	総説
A135 金属接着板の塑性曲げ加工	瀧口 三千弘 吉田 総仁	日本接着学会誌, 41 , 6 (2005) pp. 242-249	総説
A136 高周波マグネトロン同時スパッタ法により形成した SiC-Ti および SiC-Al 薄膜の摩擦および摩耗特性	加藤昌彦 中佐啓治郎 鄭 錦華 廣田悟史	日本機械学会論文集 (A 編), 71 , 702 (2005) pp. 359-366	原著
A137 ステンレス鋼および合金鋼のスパッタエッチングによる円錐状表面炭化物の生成	張 清廉 王 栄光 加藤昌彦 中佐啓治郎	日本金属学会誌, 69 , 3 (2005) pp. 312-319	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
A138 Influence of Ultraviolet Light Irradiation on Corrosion Behavior of Weathering Steel with and without TiO ₂ -Coating in 3 mass% NaCl Solution	Manal Gomaa Mahmoud Rongguang Wang Masahiko Kato Keijiro Nakasa	Scripta Materialia, 51 (2005) pp. 1303-1308	原著
A139 セラミックス溶射皮膜のはく離強度・寿命評価	中佐啓治郎	実験力学, 5 , 2 (2005) pp. 9-16	総説
A140 Rust Formation Behavior on Carbon and Weathering Steels in Wet/Dry Cycles with and without Na ₂ SO ₄ Solution Spraying Combining NaCl or MgCl ₂ Solution Dripping	Manal Gomaa Mahmoud Jun Itoh Hiroo Nagano Keijiro Nakasa	材料と環境, 54 , 6 (2005) pp. 268-274	原著
A141 アモルファス SiCN スパッタ薄膜の耐摩耗性とマイクロエッジインデント法によるはく離強度評価	鄭 錦華 加藤昌彦 竹添星児 中佐啓治郎	材料, 54 , 10 (2005) pp. 1022-1029	原著
A142 溶射皮膜のせん断はく離強度の定量的評価について	加藤昌彦 中佐啓治郎	溶射技術, 24 , 4 (2005) pp. 29-40	総説
A143 Observation by Atomic ForceMicroscope of Corrosion Product during Pitting Corrosion on SUS304 Stainless Steel	Qinglian Zhang Rongguang Wang Masahiko Kato Keijiro Nakasa	Scripta Materialia, 52 (2005) pp. 227-230	原著
A144 Analysis of Cracking and Delamination of Sputtered Thin Films during Wear Process	Keijiro Nakasa Taufiq Arif Setyanto Bo Zhang Jin-hua Zheng Masahiko Kato	Key Engineering Materials, 297-300 (2005) pp. 1718-1723	原著

B. 複雑システム工学 専攻

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
B1 An interactive fuzzy satisficing method for multiobjective stochastic integer programming problems through a probability maximization model	Cahit Perkgoz Masatoshi Sakawa Kosuke Kato Hideki Katagiri	Asia Pacific Management Review: An International Journal, 10 , 1 (2005) pp. 29-35	原著
B2 Interactive fuzzy programming for two-level nonlinear integer programming problems through genetic algorithms	Md. Abul Kalam Azad Masatoshi Sakawa Kosuke Kato Hideki Katagiri	Asia Pacific Management Review: An International Journal, 10 , 1 (2005) pp. 70-77	原著
B3 A study on the effect of agent's utility based on Hogg-Huberman model in multi-agent systems	Junko Shibata Masatoshi Sakawa Kosuke Kato Hideki Katagiri	Asia Pacific Management Review: An International Journal, 10 , 2 (2005) pp. 107-111	原著
B4 A genetic algorithm approach for the time-cost trade-off in PERT networks	Amir Azaron Cahit Perkgoz Masatoshi Sakawa	Applied Mathematics and Computation, 168 , 2 (2005) pp. 1317-1339	原著

論文題目	著者名	誌名, 巻, 号 (年頁)	論文種別
B5 A genetic algorithm with double string for nonlinear integer programming problems	Masatoshi Sakawa Kosuke Kato Md. Abul Kalam Azad Rei Watanabe	Proceedings of 2005 IEEE International Conference on Systems, Man and Cybernetics, (2005) pp. 3281-3286	原著
B6 An application of genetic algorithm for multi-dimensional competitive facility location problem	Takeshi Uno Masatoshi Sakawa	Proceedings of 2005 IEEE International Conference on Systems, Man and Cybernetics, (2005) pp. 3276-3280	原著
B7 A genetic algorithm with decomposition procedures for block-angular nonlinear integer programming problems	Kosuke Kato Masatoshi Sakawa Md. Abul Kalam Azad Kenji Morihara	Proceedings of 2005 IEEE International Conference on Systems, Man and Cybernetics, (2005) pp. 3287-3292	原著
B8 拡張 Hogg-Huberman モデルの情報の不確かさがエージェントに及ぼす影響の分析	柴田淳子 坂和正敏 加藤浩介 片桐英樹	京都大学数理解析研究所講究録, 1409 (2005) pp. 224-233	原著
B9 改良型進化的マルチエージェントシステムを用いた多目的計画法	柴田淳子 坂和正敏 加藤浩介 片桐英樹 佐々木浩二	京都大学数理解析研究所講究録, 1457 (2005) pp. 99-106	原著
B10 防御的配置問題に対するタブー探索法の応用	宇野剛史 坂和正敏	京都大学数理解析研究所講究録, 1409 (2005) pp. 78-86	原著
B11 測定の最小の刻み幅を考慮した一般化負の超幾何分布モデル	岩瀬 晃盛 金藤 浩司 岡田 光正	数理統計, 52 , 2 (2005) pp. 367-380	原著
B12 Numerical simulation of multi dimensional reflecting geometrical Brownian motion and its application to mathematical finance	Shuya Kanagawa Akio Arimoto Yasumasa Saisho	Nonlinear Analysis, 63 , 5-7 (2005) pp. e2209-e2222	原著
B13 Mean square approximation of multi dimensional reflecting fractional Brownian motion via penalty method	Shuya Kanagawa Koichi Inoue Akio Arimoto Yasumasa Saisho	Discrete and Continuous Dynamical Systems, 2005 , Special (2005) pp. 463-475	原著
B14 Computational methods through genetic algorithms for obtaining Stackelberg solutions to two-level integer programming problems	Ichiro Nishizaki Masatoshi Sakawa	Cybernetics and Systems: An International Journal, 36 , 6 (2005) pp. 565-579	原著
B15 Lotteries as a means of financing for preservation of the global commons and agent-based simulation analysis	Ichiro Nishizaki Yoshifumi Ueda Tomohiko Sasaki	Applied Artificial Intelligence: An International Journal, 19 , 8 (2005) pp. 721-741	原著
B16 Agent-based simulations for stability and efficiency on partnership structures	Ichiro Nishizaki Yoshifumi Uno	IEEE SMC 2005, Conference Proceedings, IEEE Systems, Man, and Cybernetics Society, (2005)	原著
B17 A simulation model on an artificial society with multiple adaptive agents for financing public goods with lotteries	Ichiro Nishizaki Tomohiko Sasaki	Proceedings of The First World Congress of the International Federation for Systems Research, (2005)	原著