List of Publications (International Conferences)

Manabu Kano

2012-   Dept. of Systems Science, Kyoto University, Japan

1994-2012   Dept. of Chemical Engineering, Kyoto University, Japan

1) Masaki Kitazawa, Tomohiro Yoshimura, Shin Egami, Manabu Kano, Yoshitake Ito: Yield Enhancement in MEMS Wafer Level Fabrication by Whole Process PLS Model. *International Symposium on Semiconductor Manufacturing (ISSM)*, YE-16, Yokyo, Japan, Dec. 2-3 (2014)

2) Sanghong Kim, Kazuki Mishima, Manabu Kano, Shinji Hasebe: Database Management Method Based on Density and Non-Linearity for Locally Weighted Linear Regression Model. AIChE Annual Meeting, Atlanta, US, Nov. 16-21 (2014)

3) Hiroshi Nakagawa, Manabu Kano, Shinji Hasebe, Takuya Miyano, Tomoyuki Watanabe and Naoki Wakiyama: Model Development for NIR-Based Real-Time Monitoring of Ingredient Concentration. AIChE Annual Meeting, Atlanta, US, Nov. 16-21 (2014)

4) Taku Uchimaru, Takuya Miyano, Koichi Fujiwara, Manabu Kano, Hideaki Tanabe, Hiroshi Nakagawa, Tomoyuki Watanabe, Naoki Wakiyama: Wavenumber Selection for NIR Calibration Modeling: Application to Water and Drug Content Estimation. AIChE Annual Meeting, Atlanta, US, Nov. 16-21 (2014)

5) Koji Hazama, Koichi Fujiwara, Manabu Kano, Shinroku Matsuzaki, Akira Morita: Visualization and Prediction of Operating Conditions of Blast Furnace, AIChE Annual Meeting, Atlanta, US, Nov. 16-21 (2014)

6) Toshiya Hirai, Koji Hazama, Manabu Kano: Application of Locally Weighted Partial Least Squares to Design of Semiconductor Virtual Metrology. IEEE Multi-conference on Systems and Control, FrB04.3, Antibes, France, October 8-10 (2014)

7) Masahiro Tanaka, Shiro Masuda, Manabu Kano: Domain of Attraction for Optimization of Data-Based H2 Control Performance Criterion. IEEE Multi-conference on Systems and Control, FrA03.4, Antibes, France, October 8-10 (2014)

8) Yasushi Mahara, Shiro Masuda, Manabu Kano: Simultaneous Update of Model and Controller Using Fictitious Reference Iterative Tuning for Disturbance Attenuation Based on Variance Evaluation. IEEE Multi-conference on Systems and Control, FrA03.3, Antibes, France, October 8-10 (2014)

9) Erika Abe, Koichi Fujiwara, Toshihiro Hiraoka, Toshitaka Yamakawa, Manabu Kano: Drowsy Driving Accident Prediction Based on Heart Rate Variability Analysis. The 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), WA19.48, Chicago, USA, August 26-30 (2014)

10) Kazuma Ando, Shiro Masuda, Manabu Kano: Data-Driven Generalized Minimum Variance Regulatory Control. *European Control Conference (ECC)*, Strasbourg, France,

June 24-27 (2014)

11) Iftikhar Ahmad, Manabu Kano, Shinji Hasebe, Hiroshi Kitada, Noboru Murata: Design of Inner and Outer Gray-Box Models to Predict Molten Steel Temperature in Tundish. *The 10th IFAC International Symposium on Dynamics and Control of Process Systems (DYCOPS)*, Mumbai, India, Dec. 18-20 (2013)

12) Hirotsugu Hashimoto, Koichi Fujiwara, Yoko Suzuki, Miho Miyajima, Toshitaka Yamakawa, Manabu Kano, Taketoshi Maehara, Katsuya Ohta, Tetsuo Sasano, Masato Matsuura, Eisuke Matsushima: Epileptic Seizure Monitoring by Using Multivariate Statistical Process Control. *The 12th IFAC Symposium on Computer Applications in Biotechnology (CAB)*, Mumbai, India, Dec. 16-18 (2013)

13) Takuya Miyano, Hiroshi Nakagawa, Koichi Fujiwara, Manabu Kano: Application of Clustering-based Variable Selection Method for PLS Modeling in Near-Infrared Spectroscopic Spectra. *AAPS Annual Meeting and Exposition*, San Antonio, US, Nov. 10-14 (2013)

14) Koichi Fujiwara, Manabu Kano: Development of an Efficient Variable Selection Methodology for Calibration Model Design. *AIChE Annual Meeting*, San Francisco, US, Nov. 3-8 (2013)

15) Toshitaka Yamakawa, Koichi Fujiwara, Manabu Kano, Miho Miyajima, Yoko Suzuki, Taketoshi Maehara, Katsuya Ohta, Tetsuo Sasano, Masato Matsuura, Eisuke Matsushima: Development of a Wearable HRV Telemetry System to be Operated by Non-Experts in Daily Life. *APSIPA Annual Summit and Conference (APSIPA ASC)*, Kaohsiung, Taiwan, Oct. 29 - Nov. 1 (2013)

16) Hashimoto Hirotsugu, Koichi Fujiwara, Suzuki Yoko, Miho Miyajima, Toshitaka Yamakawa, Manabu Kano, Taketoshi Maehara, Katsuya Ohta, Tetsuo Sasano, Masato Matsuura, Eisuke Matsushima: Heart Rate Variability Features for Epilepsy Seizure Prediction. *APSIPA Annual Summit and Conference (APSIPA ASC)*, Kaohsiung, Taiwan, Oct. 29 - Nov. 1 (2013)

17) Yoko Suzuki, Hirotsugu Hashimoto, Koichi Fujiwara, Miho Miyajima, Toshitaka Yamakawa, Manabu Kano, Taketoshi Maehara, Katsuya Ohta, Tetsuo Sasano, Masato Matsuura, Eisuke Matsushima: Feature Extraction of Heart Rate Variability Change Prior to Epileptic Seizures. *The SICE Annual Conference*, Paper MoBT14.16, Nagoya, Japan, Sept. 14-17 (2013)

18) Sanghong Kim, Manabu Kano, Shinji Hasebe: Soft-sensor Using Locally Weighted PLS with Adaptive Similarity Measure and Its Application to Pharmaceutical Process. *The 9th World Congress of Chemical Engineering (WCCE9)*, Seoul, Korea, Aug. 18-23 (2013)

19) [Invited Lecture] Manabu Kano: State-of-the-art Practice of Virtual Sensing Technology in Process Industries. *The 9th World Congress of Chemical Engineering (WCCE9)*, Seoul, Korea, Aug. 18-23 (2013)

20) Hirotsugu Hashimoto, Koichi Fujiwara, Yoko Suzuki, Miho Miyajima, Toshitaka

Yamakawa, Manabu Kano, Taketoshi Maehara, Masato Matsuura: Analysis of Changes in HRV of Epileptic Patients in Preictal Period. *The 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Osaka, Japan, July 3-7 (2013)

21) Koichi Fujiwara, Manabu Kano: Efficient Input Variable Selection for Calibration Model Design. *The 9th Asian Control Conference (ASCC)*, Istanbul, Turkey, June 23-26 (2013)

22) Koichi Fujiwara, Manabu Kano: Input Variable Selection based on the Correlation-based Variable Clustering. *IFPAC*, Baltimore, US, Jan. 22-25 (2013)

23) [**Invited Lecture**] Toshiya Hirai, Manabu Kano, T. Tatsumi: Quality Control for Dry Process through APC/EES. *The 34th International Symposium on Dry Process (DPS)*, Tokyo, Japan, Nov. 15-16 (2012)

24) Manabu Kano, Sanghong Kim, Ryota Okajima, Shinji Hasebe: Industrial Applications of Locally Weighted PLS to Realize Maintenance-Free High-Performance Virtual Sensing, *The 12th International Conference on Control, Automation and Systems (ICCAS)*, Jeju Island, Korea, Oct. 17-21 (2012)

25) Noboru Murata, Sonoda Sho, Hideitsu Hino, Hiroshi Kitada, Manabu Kano: Sensitivity Analysis for Controlling Molten Steel Temperature in Tundish. *IFAC Workshop on Automation in the Mining, Mineral and Metal Industries (IFAC MMM)*, Gifu, Japan, Sept. 10-12 (2012)

26) Shota Sakashita, Toshinori Okura, Iftikhar Ahmad, Manabu Kano, Hiroshi Kitada, Noboru Murata: Gray-Box Model to Control Molten Steel Temperature in Tundish. *IFAC Workshop on Automation in the Mining, Mineral and Metal Industries (IFAC MMM)*, Gifu, Japan, Sept. 10-12 (2012)

27) Linting Huang, Tomomi Ino, Haruhiko Kondo, Manabu Kano: Adaptive Modeling of Batch Equipments through Correlation-based Just-In-Time Method. *APC Conference XXIV*, Ann Arbor, Michigan, US, Sept. 10-12 (2012)

28) Qing Lin Su, Manabu Kano, and Min-Sen Chiu: A New Strategy of Locality Enhancement for Justin-Time Learning Method. *Proceedings of the 11th International Symposium on Process Systems Engineering (PSE)* , Singapore, July 15-19 (2012)

29) J. Rafael Alcántara-Avila, Manabu Kano, and Shinji Hasebe: Environmental and Economic Optimization of Distillation Structures to Produce Anhydrous Ethanol. *Proceedings of the 22nd European Symposium on Computer Aided Process Engineering (ESCAPE)*, London, UK, June 17-20 (2012)

30) Yuichi Kitagawa, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Efficient Shape Design of Microreactors using CFD and Response Surface. *12th International Conference on Microreaction Technology (IMRET 12)*, Lyon, France, Feb. 20-22 (2012)

31) Keisuke Miyabayashi, Osamu Tonomura, Manabu Kano, Shinji Hasebe: State Estimation for Microreactors using Physical Model and Nonlinear Filtering Algorithm.

12th International Conference on Microreaction Technology (IMRET 12), Lyon, France, Feb. 20-22 (2012)

32) Sanghong Kim, Manabu Kano, Hiroshi Nakagawa, Shinji Hasebe: Estimation of Active Pharmaceutical Ingredient Content Using Locally Weighted Partial Least Squares. Chemical Process Control (CPC VIII), Paper #6, Savannah, US, Jan. 11-13 (2012)

33) Toshinori Okura, Manabu Kano, Shinji Hasebe, Hiroshi Kitada, Noboru Murata: High Performance Prediction of Molten Steel Temperature through Gray-Box Model. *AIChE Annual Meeting*, paper 765b, Minneapolis, US, Oct. 16-21 (2011)

34) Ryota Okajima, Sanghong Kim, Manabu Kano, Shinji Hasebe: Selection of Similarity Measure for Locally Weighted Partial Least Squares Regression. *AIChE Annual Meeting*, paper 669e, Minneapolis, US, Oct. 16-21 (2011)

35) Manabu Kano, Takeaki Sakata, Shinji Hasebe: Just-In-Time Statistical Process Control: Adaptive Monitoring of Vinyl Acetate Monomer Process. *The 18th IFAC World Congress*, 13157-13162, Milano, Italy, Aug. 28 – Sep. 2 (2011)

36) Iftikhar Ahmad, Hiroyuki Mabuchi, Manabu Kano, Shinji Hasebe, Yoshikazu Inoue, Hiroaki Uegaki: Data-Based Fault Diagnosis of Power Cable System: Comparative Study of k-NN, ANN, Random Forest, and CART. *The 18th IFAC World Congress*, 12880-12885, Milano, Italy, Aug. 28 – Sep. 2 (2011)

37) Keisuke Miyabayashi, Osamu Tonomura, Manabu Kano, Shinji Hasebe: On-line Process Monitoring of Tubular Microreactors using Unscented Kalman Filter. *The 2nd International Symposium on Process Chemistry (ISPC)*, 1P-33, Kyoto, Japan, Aug. 10-12 (2011)

38) Manabu Kano, Kenichi Tasaka, Morimasa Ogawa, Akitoshi Takinami, Shinichi Takahashi, Seiji Yoshii: Extended Fictitious Reference Iterative Tuning and Its Application to Chemical Processes. *Proceedings of the 2011 4th International Symposium on Advanced Control of Industrial Processes (ADCONIP)*, 379-384, Thousand Islands Lake, Hangzhou, P.R. China, May 23-26 (2011)

39) J. Rafael Alcántara-Avila, Manabu Kano, Shinji Hasebe: Multiobjective Optimization for Synthesizing Compressor-aided Distillation Sequences with Heat Integration. *AMIDIQ*, Riviera Maya, Mexico, May 3-6 (2011)

40) Takeaki Sakata, Manabu Kano, Shinji Hasebe: Application of Just-In-Time Statistical Process Control to Vinyl Acetate Monomer Process. *AIChE Annual Meeting*, paper 654e, Salt Lake City, US, Nov. 7-12 (2010)

41) Sanghong Kim, Hiroshi Nakagawa, Manabu Kano, Shinji Hasebe: Estimation of Active Pharmaceutical Ingredients Content in Blending Process for Drug Products Manufacturing. *AIChE Annual Meeting*, paper 445d, Salt Lake City, US, Nov. 7-12 (2010)

42) Yuto Tsuji, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Channel Structural Design of Microdevices by Superstructure-Based Approach. *AIChE Annual Meeting*,

paper 34e, Salt Lake City, US, Nov. 7-12 (2010)

43) **[Invited Lecture]** Manabu Kano: Recent Development of Process Control Technology through Industry-University Collaboration in Japan. *The 13th Asia Pacific Confederation of Chemical Engineering Congress*, Taipei, Oct. 5-8 (2010)

44) J. Rafael Alcántara-Avila, Manabu Kano, Shinji Hasebe: Two-Level Approach for Synthesizing Externally and Internally Heat Integrated Distillation Sequences. *The 13th Asia Pacific Confederation of Chemical Engineering Congress*, Taipei, Oct. 5-8 (2010)

45) Lin Wang, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Optimal Design for T-shaped Microreactors with Engulfment Flow. *The 13th Asia Pacific Confederation of Chemical Engineering Congress*, Taipei, Oct. 5-8 (2010)

46) Manabu Kano, Kenichi Tasaka, Morimasa Ogawa, Shigeki Ootakara, Akitoshi Takinami, Shinichi Takahashi, Seiji Yoshii: Practical Direct PID/I-PD Controller Tuning and Its Application to Chemical Processes. *IEEE International Conference on Control Applications*, pp.2426-2431, Yokohama, Japan, Sept. 8-10 (2010)

47) Manabu Kano, Hiroshi Makita, Shinji Hasebe: Prediction of Multiple Steady States in Distillation through Simple Heat Balance Analysis. *European Congress of Chemical Engineering (ECCE 7) and 19th International Congress of Chemical and Process Engineering (CHISA 2010)*, Prague, Czech Republic, Aug. 29 - Sept. 2 (2010)

48) Manabu Kano, Takeaki Sakata, Shinji Hasebe: Just-In-Time Statistical Process Control for Flexible Fault Management. *SICE Annual Conference 2010*, pp.1482-1485, Taipei, Taiwan, August 18-21 (2010)

49) Lin Wang, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Pseudo-Three-Dimensional Lamellar Model of T-Shaped Microreactors with Secondry Flow. *The 5th International Symposium on Design, Operation and Control of Chemical Processes (PSE Asia 2010)*, pp.1564-1570, Singapore, July 26-28 (2010)

50) Yohei Shigi, Manabu Kano, Shinji Hasebe, Satoshi Ooyama: Model-Plant Mismatch Detection for Maintenance of Model-Based Control Systems. *The 5th International Symposium on Design, Operation and Control of Chemical Processes (PSE Asia 2010)*, pp.1268-1277, Singapore, July 26-28 (2010)

51) Koichi Fujiwara, Manabu Kano, Shinji Hasebe: Correlation-based Spectral Clustering for Flexible Soft-Sensor Design. *The 9th International Symposium on Dynamics and Control of Process Systems (DYCOPS 2010)*, pp.695-700, Leuven, Belgium, July 5-7 (2010)

52) Manabu Kano, Yohei Shigi, Shinji Hasebe, Satoshi Ooyama: Detection of Significant Model-Plant Mismatch from Routine Operation Data of Model Predictive Control System. *The 9th International Symposium on Dynamics and Control of Process Systems (DYCOPS 2010)*, pp.677-682, Leuven, Belgium, July 5-7 (2010)

53) Osamu Tonomura, Jun-ichi Kano, Manabu Kano, Shinji Hasebe: Process Monitoring of

Tubular Microreactors using Particle Filter. *The 9th International Symposium on Dynamics and Control of Process Systems (DYCOPS 2010)*, pp.413-418, Leuven, Belgium, July 5-7 (2010)

54) Takamasa Yumoto, Shigeki Ootakara, Hiroya Seki, Yoshihiro Hashimoto, Hisashi Murata, Manabu Kano, Yoshiyuki Yamashita: Rigorous Dynamic Simulator for Control Study of the Large-scale Benchmark Chemical Plant. *The 9th International Symposium on Dynamics and Control of Process Systems (DYCOPS 2010)*, pp.49-54, Leuven, Belgium, July 5-7 (2010)

55) Osamu Tonomura, Manabu Kano, Shinji Hasebe: CFD-Based Shape Optimization of Microchannels using Adjoint Variable Method. *5th European Conference on Computational Fluid Dynamics (CFD 2010)*, 01779, Lisbon, Portugal, June 14-17 (2010)

56) Osamu Tonomura, Manabu Kano, Shinji Hasebe: Shape Optimization of Microchannels using CFD and Adjoint Method. *20th European Symposium on Computer Aided Process Engineering (ESCAPE20)*, pp.37-42, Ischia, Italy, June 6-9 (2010)

57) Osamu Tonomura, Manabu Kano, Shinji Hasebe: CFD-based Shape Optimization of Pressure-Driven Microchannels. *11th International Conference on Microreaction Technology (IMRET 11)*, Kyoto, Japan, March 8-10 (2010)

58) Masahiro Tsujimoto, Osamu Tonomura, Manabu Kano, Shinji Hasebe, Toru Hinouchi: Design of Micro Electrolytic Reactors towards Acceleration of Mass Transfer. *11th International Conference on Microreaction Technology (IMRET 11)*, Kyoto, Japan, March 8-10 (2010)

59) Lin Wang, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Development of Lamellar Model for Non-Isothermal T-Shaped Microreactors with Secondary Flow. *11th International Conference on Microreaction Technology (IMRET 11)*, Kyoto, Japan, March 8-10 (2010)

60) Jun-ichi Kano, Osamu Tonomura, Manabu Kano, Shinji Hasebe: State and Parameter Estimation for Tubular Microreactors Using Particle Filter. *11th International Conference on Microreaction Technology (IMRET 11)*, Kyoto, Japan, March 8-10 (2010)

61) Yoshiaki Tanaka, K. Isozaki, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Development of Flow Distribution Unit and Blockage Diagnosis System for Externally Parallelized Microreactors. *11th International Conference on Microreaction Technology (IMRET 11)*, Kyoto, Japan, March 8-10 (2010)

62) Jun-ichi Kano, Osamu Tonomura, Manabu Kano, Shinji Hasebe: On-Line Monitoring of Tubular Microreactors Using Particle Filter. *AIChE Annual Meeting*, paper 583e, Nashville, US, Nov. 8-13 (2009)

63) Masahiro Tsujimoto, Osamu Tonomura, Manabu Kano, Shinji Hasebe, Toru Hinouchi: Design of Micro Electrolytic Reactors towards Acceleration of Mass Transfer. *AIChE Annual Meeting*, paper 570c, Nashville, US, Nov. 8-13 (2009)

64) Osamu Tonomura, Natsumi Nishiyama, Manabu Kano, Shinji Hasebe, Yoshiaki

Tanaka: Uniform Fluid Distribution and Blockage Diagnosis in Externally Parallelized Microreactors. *AIChE Annual Meeting*, paper 570a, Nashville, US, Nov. 8-13 (2009)

65) Koichi Fujiwara, Manabu Kano, Shinji Hasebe: Development and Application of a New Spectral Clustering Algorithm. *AIChE Annual Meeting*, paper 507d, Nashville, US, Nov. 8-13 (2009)

66) Lin Wang, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Simplified Model-Based Design and Shape Optimization for T-Shaped Microreactors with Secondary Flow. *AIChE Annual Meeting*, paper 468c, Nashville, US, Nov. 8-13 (2009)

67) Yohei Shigi, Manabu Kano, Shinji Hasebe: Detection of Significant Model-Plant Mismatch Using Stepwise Method for Model-Based Control. *AIChE Annual Meeting*, paper 251c, Nashville, US, Nov. 8-13 (2009)

68) [Tutorial Lecture] Manabu Kano: Solving Quality Problems with Multivariate Data Analysis: Basics and Applications. *AEC/APC Symposium Asia 2009*, Tokyo, Japan, Nov. 9 (2009)

69) Osamu Tonomura, Masato Kubota, Manabu Kano, Shinji Hasebe: Design of T-shaped Microreactors by Reduced-Order Approach. 10th International Symposium on Process Systems Engineering (PSE), Salvador, Brazil, August 16-20 (2009)

70) Jun-ichi Kano, Osamu Tonomura, Manabu Kano, Shinji Hasebe: State and Parameter Estimation for Tubular Microreactors Using Particle Filter. *ICROS-SICE International Joint Conference 2009 (ICCAS-SICE 2009)*, pp.3278-3282, Fukuoka, Japan, August 18-21 (2009)

71) Koichi Fujiwara, Manabu Kano, Shinji Hasebe: Development of Correlation-Based Pattern Recognition and Its Application to Adaptive Soft-Sensor Design. *ICROS-SICE International Joint Conference 2009 (ICCAS-SICE 2009)*, pp.1990-1995, Fukuoka, Japan, August 18-21 (2009)

72) Yusuke Yasuda, Shiro Masuda, Manabu Kano: PID Gain Tuning for Disturbance Attenuation Using FRIT Method. *ICROS-SICE International Joint Conference 2009 (ICCAS-SICE 2009)*, 941-944, Fukuoka, Japan, August 18-21 (2009)

73) [Tutorial Lecture] Manabu Kano: Process Data Analysis for Quality Improvement and Process Control. *ICROS-SICE International Joint Conference 2009 (ICCAS-SICE 2009)*, Tutorial Mini-Course 2, Fukuoka, Japan, August 18-21 (2009)

74) Osamu Tonomura, Satoshi Nagahara, Jun-ichi Kano, Manabu Kano, Shinji Hasebe: Sensor Location for Effective Fault Diagnosis in Micro Chemical Processes. *International Symposium on Advanced Control of Chemical Processes (ADCHEM)*, CD-ROM, Istanbul, Turkey, July 12-15 (2009)

75) Koichi Fujiwara, Manabu Kano, Shinji Hasebe: Correlation-Based Pattern Recognition and Its Application to Adaptive Soft-Sensor Design. *International Symposium on Advanced Control of Chemical Processes (ADCHEM)*, CD-ROM, Istanbul, Turkey, July

12-15 (2009)

76) **[Plenary Lecture]** Manabu Kano, Morimasa Ogawa: The State of the Art in Advanced Chemical Process Control in Japan. *International Symposium on Advanced Control of Chemical Processes (ADCHEM)*, CD-ROM, Istanbul, Turkey, July 12-15 (2009)

77) Manabu Kano, Yosuke Mukai, Shinji Hasebe: How to Estimate True Effect of Changing Operating Condition on Product Quality: ICA-Based Approach. *19th European Symposium on Computer Aided Process Engineering (ESCAPE19)*, 1015-1019, Cracow, Poland, June 14-17 (2009)

78) Lin Wang, Manabu Kano, Shinji Hasebe: Effect of Multiple Steady-States on Operation Strategy and Control Structure for a Heat Integrated Distillation Column (HIDiC). *19th European Symposium on Computer Aided Process Engineering (ESCAPE19)*, 447-451, Cracow, Poland, June 14-17 (2009)

79) Osamu Tonomura, Manabu Kano, Shinji Hasebe: CFD-based Shape Optimization of Pressure-driven Microchannels. *Seventh International Conference on the Foundations of Computer-Aided Process Design (FOCAPD)*, Breckenridge, US, June 7-12 (2009)

80) Shiro Masuda, Manabu Kano, Yusuke Yasuda: A Fictitious Reference Iterative Tuning Method with Simultaneous Delay Parameter Tuning of the Reference Model. *The 2009 IEEE International Conference on Networking, Sensing and Control (IEEE ICNSC'09)*, Okayama, Japan, March 26-29 (2009)

81) **[Invited Lecture]** Manabu Kano: Practical Process Data Analysis to Meet Industrial Needs: Recent Advancement of Statistical Modeling and Process Analysis. *2008 Taiwan/Korea/Japan Chemical Engineering Conference and the 55th Taiwan Institute of Chemical Engineers Annual Conference*, Taipei, Taiwan, Nov. 20-22 (2008)

82) Koichi Fujiwara, Yosuke Mukai, Manabu Kano, Shinji Hasebe: Development of a New Pattern Recognition Method and Its Application to Just-In-Time Modeling. *AIChE Annual Meeting*, paper688b, Philadelphia, PA, Nov. 16-21 (2008)

83) Kenichi Tasaka, Manabu Kano, Morimasa Ogawa, Shiro Masuda, Toru Yamamoto: Direct PID Tuning from Closed-Loop Data and Its Application to Unstable Polymerization Process. *AIChE Annual Meeting*, paper574b, Philadelphia, PA, Nov. 16-21 (2008)

84) Osamu Tonomura, Manabu Kano, Shinji Hasebe: CFD-Based Shape Optimization of Pressure-Driven Microchannels via Adjoint Formulation. *AIChE Annual Meeting*, paper264e , Philadelphia, PA, Nov. 16-21 (2008)

85) Jun-ichi Kano, Osamu Tonomura, Manabu Kano, Shinji Hasebe: CFD Analysis and Design of a Microreactor: Toward Precise Control of Intermediate Concentrations of Consecutive-Parallel Reactions. *International Symposium on Micro Chemical Process and Synthesis (MiPS)*, pp.190-192, Kyoto, Japan, Sep. 11-13 (2008)

86) Masahiro Tsujimoto, Osamu Tonomura, Manabu Kano, Shinji Hasebe: CFD Analysis of Electrochemical Microreactors. *International Symposium on Micro Chemical Process*

and Synthesis (MiPS), pp.187-189, Kyoto, Japan, Sep. 11-13 (2008)

87) Masato Kubota, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Development of a Reduced-order Model of T-shaped Microreactors with Secondary Flow. *International Symposium on Micro Chemical Process and Synthesis (MiPS)*, pp.112-114, Kyoto, Japan, Sep. 11-13 (2008)

88) Osamu Tonomura, Jun-ichi Kano, Satoshi Nagahara, Manabu Kano, Shinji Hasebe: Development of Model-based Monitoring System for Microreactors. *International Symposium on Micro Chemical Process and Synthesis (MiPS)*, pp.53-55, Kyoto, Japan, Sep. 11-13 (2008)

89) [Invited Lecture] Morimasa Ogawa, Manabu Kano: Practice and Challenges in Chemical Process Control Applications in Japan. *17th IFAC World Congress*, Paper WeC25.3, Seoul, Korea, July 6-11 (2008)

90) Koichi Fujiwara, Manabu Kano, Shinji Hasebe: Soft-sensor Design for Time-Varying Processes through Correlation-Based Just-In-Time Modeling. *Proceedings of Fifth International Conference on Foundations of Computer-Aided Process Operations (FOCAPO 2008)*, pp.341-344, Cambridge, MA, June 29-July 2 (2008)

91) Osamu Tonomura, Satoshi Nagahara, Manabu Kano, Shinji Hasebe: Sensor Location for Effective Fault Diagnosis in Micro Chemical Plants. *Proceedings of Fifth International Conference on Foundations of Computer-Aided Process Operations (FOCAPO 2008)*, pp.331-334, Cambridge, MA, June 29-July 2 (2008)

92) Koichi Fujiwara, Manabu Kano, Shinji Hasebe: Correlation-Based Just-In-Time Modeling for Soft-Sensor Design. *18th European Symposium on Computer Aided Process Engineering (ESCAPE 18)*, pp.471-476, Elsevier (2008)

93) Masato Kubota, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Characterization of High Heat and Mass Transfer in T-Shaped Microreactors and Its Optimal Design. *10th International Conference on Microreaction Technology (IMRET) / AIChE Spring National Meeting*, paper 129c, New Orleans, LA, April 6-10 (2008)

94) Osamu Tonomura, Satoshi Nagahara, Manabu Kano, Shinji Hasebe: Fluid Distribution and Blockage Diagnosis in Parallel Microchannel Configurations. *10th International Conference on Microreaction Technology (IMRET) / AIChE Spring National Meeting*, paper 128d, New Orleans, LA, April 6-10 (2008)

95) [Invited Lecture] Tomomi Ino, Haruhiko Kondo, Manabu Kano: Wavelet Coefficient Regression for Product Quality Estimation and Root Cause Analysis. *AEC/APC Symposium Asia 2007*, FD-O-044, Kumamoto, Japan, Nov. 29-30 (2007)

96) Manabu Kano, Seunghyun Lee, Shinji Hasebe: Two-Stage Subspace Identification for High Performance Softsensor Design. *AIChE Annual Meeting*, paper 605c, Salt Lake City, UT, Nov. 4-9 (2007)

97) Osamu Tonomura, Satoshi Nagahara, Manabu Kano, Shinji Hasebe: Optimal Sensor Location and State Estimation for Microreactors. *AIChE Annual Meeting*, paper 317f,

Salt Lake City, UT, Nov. 4-9 (2007)

98) Seunghyun Lee, Manabu Kano, Shinji Hasebe: Softsensor Development and Disturbance Estimation through Two-Stage Subspace Identification. *Proceeding of the 16th IEEE International Conference on Control Applications (CCA)*, pp.521-526, Singapore, Singapore, Oct. 1-3 (2007)

99) Yoshiaki Nakagawa, Takashi Tanizaki, Shigemasa Nakagawa, Manabu Kano: Quality Improvement of Steel Products by Using Multivariate Data Analysis. *SICE Annual Conference*, 3B06-1, Takamatsu, Sept. 19-20 (2007)

100) Manabu Kano, Seunghyun Lee, Shinji Hasebe: Improving Estimation Performance of Softsensors through Two-Stage Subspace Identification. *Preprints of the 12th IFAC Symposium on Automation in Mining, Mineral and Metal Processing (IFAC MMM)*, pp.185-190, Québec City, Canada, Aug. 21-23 (2007)

101) Osamu Tonomura, Tatsuya Takase, Manabu Kano, Shinji Hasebe: CFD-based Shape Optimization of Microchannels Using Adjoint Variable Method. *Proceedings of International Symposium on Design, Operation and Control of Chemical Processes (PSE ASIA 2007)*, CD-ROM, G-13, Xi'an, China, Aug. 15-18 (2007)

102) Lin Wang, Hiroshi Makita, Manabu Kano, Shinji Hasebe: Dynamic Start-up Model of Heat Integrated Distillation Column. *Proceedings of International Symposium on Design, Operation and Control of Chemical Processes (PSE ASIA 2007)*, CD-ROM, F-15, Xi'an, China, Aug. 15-18 (2007)

103) Takayuki Tominari, Satoshi Nagahara, Osamu Tonomura, Manabu Kano, Shinji Hasebe: Optimal Sensor Location and State Estimation for Tubular Microreactors. *Proceedings of International Symposium on Design, Operation and Control of Chemical Processes (PSE ASIA 2007)*, CD-ROM, F-14, Xi'an, China, Aug. 15-18 (2007)

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