CURRICULUM VITAE

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Educational Background and Qualifications:

- 10/1978-07/1982: BE (Mech.), Hefei University of Technology, China
- 09/1982-01/1985: ME, Beijing University of Aeronautics and Astronautics, China
- 04/1992-03/1997: PhD, Tohoku University, Japan

Professional Employment History and Appointments:

- 02/1985-09/1987: Teaching Assistant, Nanchang Institute of Aeronautical Technology, China
- 10/1987-04/1989: Research student, Toyohashi University of Technology, Japan
- 05/1989-09/1990: Teaching Assistant, Nanchang Institute of Aeronautical Technology, China
- 10/1990-09/1991: Lecturer, Nanchang Institute of Aeronautical Technology, China
- 10/1991-03/1992: Visiting Researcher, School of Engineering, Tohoku University, Japan
- 04/1997-06/1998: Senior Engineer, Nikon Corporation, Japan
- 07/1998-03/2000: Assistant Professor, School of Engineering, Tohoku University, Japan
- 04/2000-present: Lecturer (till 03/2004), Associate Professor (till 03/2007), and Professor (from 04/2007), Dept. of Machine Intelligence & Systems Engineering, Akita Prefectural University, Japan

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Professional Memberships:

- Member, Japan Society of Mechanical Engineers (JSME)
- Member, Japan Society for Precision Engineering (JSPE)
- Member, Japan Society for Abrasive Technology (JSAT)
- Member, Japanese Society for Experimental Dynamics (JSEM)
- Member, American Society for Precision Engineering (ASPE)
- Member, Society of Manufacturing Engineers (SME)
- Fellow, International Society for Nanomanufacturing (ISNM)

Current Research Interests and Subjects:

1. Centerless Grinding
   (1) Fundamental Investigation of Precision Centerless Grinding
   (2) Development of Ultrasonic-Shoe Centerless Grinding Technique and its Application to Micro-fabrication
   (3) A New Centerless Grinding Technique Using Surface Grinder
   (4) Spherical Fabrication by Ultrasonic-shoe Centerless Grinding

2. Magnetic-field Assisted Polishing
   (1) Proposal of a MCF (Magnetic Compound Fluid)-based Slurry and its Fundamental Performance in Nano-precision Surface Polishing
   (2) Precision Finishing of Mold/Die for μ-TAS/Fresnel lens Fabrication by Using MCF-based Slurry
   (3) Quartz Wafer Surface Finishing by MCF-based Slurry
   (4) Nano-precision robotic finishing of free-formed surface for plastic device using MCF slurry
   (5) Proposal of a MCF wheel and its performance in high-efficiency polishing of electro-optical/ceramic materials.

3. Ultrasonic Assisted Machining
   (1) Fundamental Investigation of Internal Ultrasonic Assisted Grinding of Small Holes
   (2) Ultrasonic Truing and Dressing of Grinding Wheel
   (3) Development of a New Ultrasonic Vibration Spindle without Electric Power Supplying
   (4) The Treatment of Silicon Wafer Edge by Ultrasonic Assisted Fixed-abrasive Polishing
   (5) Elliptic Ultrasonic Assisted Grinding (EUAG) of Sapphire, Silicon, and SiC
   (6) Chemical-mechanical EUAG of Silicon Substrate and Optical glasses
   (7) Ultrasonic Assisted Cutting and Grinding of Difficult-to-cut Materials (Ti supper alloy, Ni based alloy)

4. Electrolytic/Plasma discharge grinding (E/PD-G) of difficult-to-machine materials
   (1) Fundamental machining characteristics of the E/PD-G of Titanium Alloy
   (2) The fundamental performance of the E/PD-G in Ni-based Alloy machining

5. Proposal of tilt helical milling method and its performance in the hole creation process of CFRP

Summary of research and development achievements

The current research interests of Prof Wu include centerless grinding, ultrasonic assisted machining, and field-assisted fine finishing, and is internationally known for his board research contributions to machining science. He holds **16** Japanese invented patents on the advanced technologies in precision processing of miniature components made of difficult-to-machine materials and is author of **4** book chapters, **157** refereed journal articles, **29** review articles, **75** international conference, and more than **170** domestic conference papers. Owing to his international reputation for outstanding research in advanced and precision engineering, he has been invited to give special talks at international/domestic conferences/symposiums/seminars/academic agencies for **50** times and received **4** Awards from the major Japanese engineering societies: Japan Society of Mechanical Engineers (JSME), Japan Society for Precision Engineering (JSPE) and Japan Society for Abrasive Technology (JSAT).

Prof. Wu is also active in international/domestic academic societies and organizations. He has been serving for JSME as chief secretary of technical committee, JSPE as representative member, JSAT and KEMTE as executive board members, ICAT as active member, and ISNM as fellow, respectively, and successfully organized JSME Conference on manufacturing and Machine Tool and ISMNM (International Symposium on Micro/Nano Mechanical Machining and Manufacturing) series as chairmen.

Publications:

Book Chapters:

1. Yongbo Wu, "Ultra-precision Centerless Grinding", in: Ultra-precision Machining and Aspherical Machining, Chapter 1.7, edited by Katsuo Syoji, NTS Publications, Tokyo, Japan, 2004.
2. Yongbo Wu, "Ultrasonic-shoe Centerless Grinding", in: Illustration of Abrasive Technology, Chapter 2.2.4, edited by Japan Society for Abrasive Technology, Nihon Kogyo Chosakai Publications, Tokyo, Japan, 2005.
3. Yongbo Wu and Huiru Guo, "Polishing Mechanism and Applications of Magnetic Compound Fluid (MCF) Slurry", in: Manufacturing Technologies for the Performance Enhancement of Optical Glasses, Chapter 4.5, Science and Technology Publications, Tokyo, Japan, 2012.
4. Yongbo Wu, Yaguo Li, Jianguo cao and Zhiqiang Liang, "Ultrasonic Assisted Fixed Abrasive

Machining of Hard-Brittle Materials", in: Ultrasonics: Theory, Techniques and Practical Application, NOVA SCIENCE PUBLISHERS, INC., NY, USA, 2012.

Refereed Journal Papers:

1. Weixing Xu, Liangchi Zhang, Yongbo Wu, Effect of tool vibration on the chip formation and cutting force in the machining of fiber-reinforced polymer composites, Machining Science and Technology, Accepted.
2. Qiuyan Wang, Zhiqiang Liang, Xibin Wang, Tianfeng Zhou, Wenxiang Zhao, Yongbo Wu, Li Jiao, Investigation on surface formation mechanism in elliptical ultrasonic assisted grinding (EUAG) of monocrystal sapphire based on fractal analysis method, International Journal of Advanced Manufacturing Technology, in press 4/2016; DOI: 10.1007/s00170-016-8700-7.
3. Youliang Wang, Yongbo Wu and Mitsuyoshi Nomura, A novel MC slurry and its performance in V-grooves polishing, AIP Advances, Accepted 12/2015. DOI:10.1016/j.precisioneng.2016.01.01.
4. Youliang Wang, Yongbo Wu and Mitsuyoshi Nomura, Feasibility study on surface finishing of miniature V-grooves with magnetic compound fluid slurry, Precision Engineering, Accepted.
5. Yongbo Wu, Sisi Li, Mitsuyoshi Nomura, Satoshi Kobayahi, Toru Tachibana, Ultrasonic Assisted Electrolytic Grinding of Titanium Alloy Ti-6Al-4V, Int. J. Nanomanufacturing, Accepted 11/2015
6. Jianguo Cao, Yongbo Wu, Jianyong Li, Qinjian Zhang, Study on material removal process on ultrasonic-assisted grinding of SiC ceramics using smooth particle hydrodynamic (SPH) method, International Journal of Advanced Manufacturing Technology, in press 8/2015; DOI: 10.1007/s00170-015-7629-6.
7. Sisi Li, Yongbo Wu, Mitsuyoshi Nomura, Effect of grinding wheel ultrasonic vibration on chip formation in surface grinding of Inconel 718, International Journal of Advanced Manufacturing Technology, in press 11/2015; DOI: 10.1007/s00170-015-8149-0.
8. Qiang Wang, Yongbo Wu, Mitsuyoshi Nomura, Jia Gu, Fundamental Machining Characteristics of the In-base-plane Ultrasonic Elliptical Vibration assisted Turning of Inconel 718, Procedia CIRP, Vol.42 (2016) pp.858-862.
9. Sisi Li, Yongbo Wu, Mitsuyoshi Nomura, Improving the working surface condition of electroplated cBN grinding quill in surface grinding of Inconel 718 by the assistance of ultrasonic vibration, ASME Journal of Manufacturing Science and Engineering, Vol.138, (2016) pp.071008-1_8, DOI:10.1115/1.4032080.
10. Huiru Guo, Yongbo Wu, Ultrafine polishing of optical polymer with zirconia-coated carbonyl-iron-particle-based mcf slurry, International Journal of Advanced Manufacturing Technology, in press 10/2015; DOI:10.1007/s00170-015-7929-x
11. Dong Lu, Qiang Wang, Yongbo Wu, Jianguo Cao, Huiru Guo, Fundamental Turning Characteristics of Inconel 718 by Applying Ultrasonic Elliptical Vibration on the Base Plane, Materials and Manufacturing Processes, Vol.30, No.8 (2015), pp.1010-1017.
12. Jianguo Cao, Yongbo Wu, Jianyong Li, Qinjian Zhang, A grinding force model for ultrasonic assisted internal grinding (UAIG) of SiC ceramics, Int. J. of Advanced Manufacturing Technology, Vol.81, No.5 (2015) pp.875-885 (DOI: 10.1007/s00170-015-7282-0).
13. Huiru Guo, Yongbo Wu, Dong Lu, Masakazu Fujimoto, Mitsuyoshi Nomura, Ultrafine Polishing of Electroless Nickel-Phosphorus Plating Mold with Magnetic Compound Fluid Slurry, Materials and Manufacturing Processes, Vol.29 (2014) pp.1502-1509.
14. Youliang Wang, Yongbo Wu, Huiru Guo, Masakazu Fujimoto, Mitsuyoshi Nomura and Kunio Shimada, A New MCF (Magnetic Compound Fluid) Slurry and its Performance in Magnetic Field-assisted Polishing of Oxygen-free Copper, Journal of Applied Physics, 117 (2015) pp.17D712-1_4.
15. Qiuyan Wang, Zhiqiang Liang, Xibin Wang, Wenxiang Zhao, Yongbo Wu and Tianfeng Zhou, Fractal analysis of surface topography in ground monocrystal sapphire, Applied Surface Science, 327 (2015) pp.182-189.
16. Masakazu Fujimoto, Yongbo Wu, Mitsuyoshi Nomura, Hidenari Kanai, Masahiko Jin, Wear Behavior of Grain Cutting Edge in Ultrasonic Assisted Grinding using Mini-size Wheel, Int. J. of Automation Technology, Vol.9, No.4 (2015) pp.366-372.
17. Zhiqiang Liang, Xibin Wang, Yongbo Wu, Li Jiao, Wenxiang Zhao, Tianfeng Zhou, Grinding force characteristics in Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Sapphire, Int. J. of Abrasive Technology, 6, 4 (2014) pp.286-297.

18. Yongbo Wu, Youliang Wang, Masakazu Fujimoto and Mitsuyoshi Nomura, Nano-precision polishing of CVD SiC using MCF (Magnetic Compound Fluid) slurry, Journal of the Korean Society of Manufacturing Technology Engineers, Vol.23, No.6 (2014) pp.547-554.
19. Jianguo Cao, Mitsuyoshi Nomura, Yongbo Wu, Masakazu Fujimoto, Material removal mechanism in ultrasonic assisted grinding of SiC ceramics, J. Abrasive Technology,Vol.58, No.12 (2014) pp.771-776. (In Japanese)
20. Masakazu Fujimoto, Yongbo Wu, Mitsuyoshi Nomura, Hidenari Kanai, and Masahiko Jin, Surface Topography of Mini-Size Diamond Wheel in Ultrasonic Assisted Grinding (UAG), Int. J. of Automation Technology, Vol.8, No.4 (2014) pp.569-575.
21. Huiru Guo, Yongbo Wu, Dong Lu, Masakazu Fujimoto, Mitsuyoshi Nomura, Effects of pressure and shear stress on material removal rate in ultra-fine polishing of optical glass with magnetic compound fluid slurry, Journal of Materials Processing Technology, Vol.214, No.11 (2014) pp.2759-2769.
22. Jianguo Cao, Yongbo Wu, Dong Lu, Masakazu Fujimoto, Mitsuyoshi Nomura, Fundamental machining characteristics of ultrasonic assisted internal grinding of SiC ceramics, Materials and Manufacturing Processes, 29 (2014) pp.557-563.
23. Jianguo Cao, Yongbo Wu, Dong Lu, Masakazu Fujimoto, Mitsuyoshi Nomura, Material removal behavior in ultrasonic-assisted scratching of SiC ceramics with a single diamond tool, Int. J. of Machine Tools and Manufacture, Vol. 79 (2014) pp.49-61.
24. Weixing Xu, Liangchi Zhang, Yongbo Wu, Elliptic vibration-assisted cutting of fibre-reinforced polymer composites: understanding the material removal mechanisms, Composites Science and Technology, Vol. 92 (2014) pp.103-111.
25. Yaguo Li, Yongbo Wu, Libo Zhou, Masakazu Fujimoto, Vibration-Assisted Dry Polishing of Fused Silica Using a Fixed-Abrasive Polisher, Int. J. of Machine Tools and Manufacture, Vol. 77, No.1 (2014) pp.93-102.
26. Li Jiao, Y. Wu, X. Wang, H. Guo, Z. Liang, Fundamental performance of magnetic compound fluid (MCF) wheel in ultra-fine surface finishing of optical glass, Int. J. of Machine Tools and Manufacture, Vol. 75 (2013) pp.109-118.
27. Yongbo Wu, Weiping Yang, Masakazu Fujimoto and Libo Zhou, Mirror surface finishing of silicon wafer edge using ultrasonic assisted fixed-abrasive CMP (UF-CMP), Int. J. of Automation Technology, Vol.7, No.6 (2013) pp.663-670.
28. Masakazu Fujimoto, Yongbo Wu, Hidenari Kanai, Masahiko Jin, Grinding Characteristics of Mold Steel with Micro 3D Structure in Ultrasonically Assisted Precision Grinding, Int. J. of Nanomanufacturing, Vol. 9, No.2 (2013) pp.201-210.
29. Zhiqiang Liang, Xibin Wang, Yongbo Wu, Lijing Xie, Li Jiao, Wenxiang Zhao, An experimental investigation on effective friction coefficient in Elliptical Ultrasonic Assisted Grinding (EUAG) of monocrystal sapphire, Int. J. Nanomanufacturing, Vol.9, Nos.5/6 (2013) pp.477-485.
30. Zhiqiang Liang, Xibin Wang, Yongbo Wu, Lijing Xie, Li Jiao, Wenxiang Zhao, Experimental Study on Brittle - Ductile Transition in Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Sapphire using Single Diamond Abrasive Grain, Int. J. of Machine Tools and Manufacture, Vol. 71, (2013) pp.41-51.
31. Peng Y, Liang Z, Wu Y, et al. Effect of vibration on surface and tool wear ultrasonic vibration assisted scratching of brittle materials. Int. J. of Advanced Manufacturing Technology, Vol. 59 (2012) pp. 67-72.
32. Peng Y, Liang Z, Wu Y, et al. Characteristics of chip generation by vertical elliptic ultrasonic vibration-assisted grinding of brittle materials. Int. J. of Advanced Manufacturing Technology, Vol. 62, Nos.5-8 (2012) pp.563-568.
33. Huiru Guo and Yongbo Wu, Behaviors of MCF (Magnetic Compound Fluid) Slurry and its Mechanical Characteristics: Normal and Shearing Forces under a Dynamic Magnetic Field, Journal of JSEM (Japan Society for Experimental Mechanics), Vol.12, No.4 (2012) pp.369-374.
34. Yaguo Li, Yongbo Wu, Libo Zhou, Masakazu Fujimoto, Jian Wang, Qiao Xu, Shoichi Sasaki, and Masaaki Kemmochi, Chemo-Mechanical Manufacturing of Fused Silica by Combining Ultrasonic Vibration with Fixed-Abrasive Pellets, International Journal of Precision Engineering and

Manufacturing, Vol.13, No.12 (2012) pp.2163-2172.

35. Weixing Xu, Yongbo Wu, Masakazu Fujimoto, Toru Tachibana: A new ball machining method by centerless grinding using a surface grinder, International Journal of Abrasive Technology (IJAT), Vol.5, No.2 (2012) pp.107-118.
36. Weimin Lin, Masashi Omura, Masakazu Fujimoto. Yongbo Wu, Yutaka Yamagata, Proposal of a rotation & revolution type polishing method and fundamental study of precision profile polishing, Journal of JSAT, Vol.56, No.4 (2012) pp.256-261. (in Japanese)
37. Zhiqiang Liang, Xibin Wang, Yongbo Wu, An Investigation on Wear Mechanism of Resin-bonded Diamond Wheel in Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Sapphire, Journal of Materials Processing Technology, Vol.212, No.4 (2012) pp.868-876.
38. Weixing Xu, Yongbo Wu, Simulation investigation of through-feed centerless grinding process performed on a surface grinder, Journal of Materials Processing Technology, Vol. 212 (2012), pp.927-935.
39. Yaguo Li, Yongbo Wu, Jian Wang, Wei Yang, Yinbiao Guo and Qiao Xu, Tentative investigation towards precision polishing of optical components with ultrasonically vibrating bound-abrasive pellets, Optics Express, Vol.20, No.1 (2012), pp.568-575.
40. Zhiqiang Liang, Xibin Wang, Yongbo Wu, Experimental Investigations of Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Sapphire, International Journal of Abrasive Technology (IJAT), Vol.4, No.4 (2011) pp.279-289.
41. Y. Peng, Y. Wu, Z.Q. Liang, Y. B. Guo and X. Lin, An Experimental Study of Ultrasonic Vibration-assisted Grinding of Polysilicon Using Two-Dimensional Vertical Workpiece Vibration, International Journal of Advanced Manufacturing Technology, Vol.54 (2011) pp.941-947.
42. Yongbo Wu, Zhiqiang Liang, Masakazu Fujimoto and Weimin Lin, Surface Formation Characteristics in Elliptical Ultrasonic Assisted Grinding of Monocrystal Silicon, International Journal of Nanomanufacturing (IJNM), Vol.7, Nos. 3/4 (2011), pp.189-198.
43. Yongbo Wu, Yaguo Li, Zhenzhong Wang, Wei Yang, Libo Zhou, Performance improvement of chemo-mechanical grinding in single crystal silicon machining by the assistance of elliptical ultrasonic vibration, International Journal of Abrasive Technology (IJAT), Vol.4, No.2 (2011) pp.117-131.
44. Weixing Xu and Yongbo Wu, A new through-feed centerless grinding technique using a surface grinder, Journal of Materials Processing Technology, Vol. 211 (2011), pp.1599-1605.
45. Guohong Zhang, Jianhui Qiu, Liang Shao, Mingzhu Liu, Min Zhang, Yongbo Wu, Ultrasonic weld properties of heterogeneous polymers: Polylactide and poly (methyl methacrylate), Journal of Materials Processing Technology, Vol. 211, No. 8 (2011) pp. 1358-1363.
46. Yongbo Wu and Weiping Yang, Fundamental Investigation of Silicon Wafer Edge Treatment by Ultrasonically Assisted Polishing (UAP), International Journal of Material and Product Technology (IJMPT), Vol.40, Nos.3/4 (2011), pp.264-276.
47. W. Xu and Y. Wu, A new in-feed centerless grinding technique using a surface grinder Journal of materials Processing Technology, Vol.211, (2011) pp.141-149.
48. Zhiqiang Liang, Yongbo Wu, Xibin Wang, Wenxiang Zhao, Takashi Sato, Weimin Lin, A New Two-dimensional Ultrasonic Assisted Grinding (2D-UAG) Method and Its Fundamental Performance in Monocrystal Silicon Machining, International Journal of Machine Tools and Manufacture, Vol.50, (2010), pp.728-736.
49. Takashi Sato, Yongbo Wu, Weimin Lin and Kunio Shimada, Study of three-dimensional polishing using magnetic compound fluid (MCF), Journal of JSAT, Vol.54, No.7, (2010), pp.425-430. (in Japanese)
50. Liang Zhiqiang, Wang Xibin, Yongbo Wu, Wenxiang Zhao, Peng Yunfeng, Xu Weixing, Development of a Two-dimensional Ultrasonic Vibration Assisted Grinding Technique of Monocrystal Silicon, Journal of Mechanical Engineering, Vol.46, No.13 (2010), pp.192-198. (in Chinese)
51. Y. Wu and W. Xu, Development of tangential centerless grinding using surface grinder-Shortening of grinding cycle by changing the work-table feed rate during grinding-, Journal of JSAT, Vo.54, No.6, (2010), pp.353-358. (in Japanese)
52. Z. Liang, X. Wang, Y. Wu, T. Sato and W. Lin, A feasibility study on elliptical ultrasonic assisted

grinding of sapphire substrates, International Journal of Abrasive Technology (IJAT), Vol.3, No.3, (2010), pp.190-202.

53. W. Xu, Y. Wu, T. Sato, W. Lin, Effects of process parameters on workpiece roundness in tangential-feed centerless grinding using a surface grinder, Journal of Materials Processing Technology, Vol.210, (2010) pp.759-766.
54. Liang Zhiqiang, Wang Xibin, Yongbo Wu, Wenxiang Zhao, Peng Yunfeng, Mechanism of Surface Formation for Two-dimensional Ultrasonic Vibration Assisted Grinding of Monocrystal Silicon with Vertical Workpiece Vibration, Journal of Mechanical Engineering, Vol.46, No.19 (2010), pp.171-176. (in Chinese)
55. Y. Wu, T. Sato, W. Lin, K. Yamamoto and K. Shimada, Mirror surface finishing of acrylic resin using MCF-based polishing liquid, International Journal of Abrasive Technology, Vol.3, No.1 (2010) pp.11-24.
56. Liu Renxin, Yang Weiping and Wu Yongbo, Experiment on Silicon Wafer Edge Hybrid Polishing of Ultrasonic Vibration and Chemical Mechanical, Transactions of the Chinese Society for Agricultural Machine, Vol.41, No.2, (2010), pp.220-226. (in Chinese)
57. Jianhui Qiu, Guohong Zhang, Mitsuhiro Asao, Min Zhang, Huixia Feng and Yongbo Wu, Study on the novel ultrasonic weld properties of heterogeneous polymers between PC and PMMA, International Journal of Adhesion & Adhesives, Vol. 30, (2010) 729-734.
58. W. Xu, Y. Wu, T. Sato and W. Lin, Development of tangential centerless grinding using surface grinder, Journal of JSME, Series C, Vol.75, No.757 (2009) pp.2416-2422. (in Japanese)
59. Yongbo Wu, Shota Yokoyama, Takashi Sato, Weimin Lin, Toru Tachibana, Development of a new rotary ultrasonic spindle for precision ultrasonically assisted grinding , International Journal of Machine Tools and Manufacture, Vol.49, No.12/13, (2009/10) pp.933-938.
60. Qiu Jianhui, Zhang Guohong, Wu Yongbo, Proposal of ultrasonic welding technique and weld performances applied to polymers, Polymer Engineering and Science, Vol.49, No.9, (2009) pp.1755-1759.
61. T. Sato, Y. Wu, W. Lin and K. Shimada, Development of MCF polishing technology using fluctuating magnetic field, Journal of JSME, Series B, Vol.75, No.753, 2009, pp.1007-1012. (in Japanese)
62. Y. Wu, K. Shimada, and Y. C. Wong, Fundamental performance of MCF (Magnetic Compound Fluid) polishing tool in metal surface finishing, International Journal of Machining and Machinability of Materials (IJMMM), Vol.5, Nos.2/3, 2009, pp.232-244.
63. K. Shimada, Y. Matuso, K. Yamamoto and Y. Wu , A New Float-Polishing Technique with Large Clearance Utilizing Magnetic Compound Fluid, Int. J. Abrasive Technology, Vol.1, Nos.3/4, 2008, pp.302-315.
64. Yang Weiping, Wu Yongbo and Xu Jiawen, A Hybrid Technique of Ultrasonic-Elliptic-Vibration-Assited Chemical-Mechanical Polishing and its Experimental Investigation, Mechanical Science and Technology for Aerospace Engineering, Vol.27, No.7, 2008, pp.841-847. (in Chinese)
65. Guan Yingchun, Tang Guoyi, Wan Junxi, Ye Qiang, Mamoru Mizuno, Wu Yongbo, The effect of multiphase nitride inclusions on the surface roughness of 2083 plastic molds, Journal of Materials Processing Technology, Vol. 208, No. 1–3, (2008), pp. 159–164.
66. Y. Wu, T. Tachibana, Friction characteristics of regulating wheel in centerless grinding, Journal of JSAT, Vo.52, No.8, 2008, pp.449-453. (in Japanese)
67. T. Furuya, Y. Wu, M. Nomura, Y. Shimada and K. Yamamoto, Fundamental performance of magnetic compound fluid polishing liquid in contact-free polishing of metal surface, Journal of Materials Processing Technology, Vol. 201, 2008, pp.536-541.
68. N. Kobayashi, Y. Wu, M. Nomura and T. Sato, Precision treatment of silicon wafer edge utilizing ultrasonically assisted polishing technique, Journal of Materials Processing Technology, Vol. 201, 2008, pp.531-535.
69. W. Yang, Y. Wu and M. Kato, A New Approach to Silicon Wafer Edge Treatment by Ultrasonically Assisted Polishing (UAP), International Journal of Material and Product Technology (IJMPT), Vol.31, Nos.2/3/4, 2008, pp.159-175.

70. Yongbo Wu and Tsunemoto Kuriyagawa, An ultra-precision polishing technique using high-velocity abrasive fluid, Int. J. Abrasive Technology, Vol.1, No.2, 2007, pp.151-160.
71. Y. Wu, K. Shimada, Fundamental performance of MCF polishing liquid in thinning process of quartz wafer, Journal of JSEM (Japan Society for Experimental Mechanics), Vol.7, No.3, 2007, pp.221-226. (in Japanese)
72. Y. Wu, Laser truing/dressing of small cBN grinding wheel, Journal of JSAT, Vo.51, No.9, 2007, pp.518-521. (in Japanese)
73. M. Nomura, Y. Wu and T. Kuriyagawa, Investigation of internal ultrasonically assisted grinding of small holes: effect of ultrasonic vibration in truing and dressing of small CBN grinding wheel, Journal of Mechanical Science and Technology, 21, 10 2007, pp.1605-1611.
74. Y. Wu, M. Tamano and M. Kato, Inducing a Machine Spindle to Ultrasonically Vibrate by Fluctuating Electromagnetic Force, International Journal of Applied Electromagnetics and Mechanics, Vol.25, No.1-4, 2007, pp.621-626.
75. Y. Wu, K. Tetsuka and M. Kato, A New Magnetic Polishing Liquid (MPL) Proposed for Contact-free Surface Finishing: Part 2, Detailed Performances in Metal Surface Finishing, International Journal of Applied Electromagnetics and Mechanics, Vol.25, No.1-4, 2007, pp.89-94.
76. Y. Wu and M. Kato, Rounding Process of Workpiece in Throughfeed Centerless Grinding with Large Grinding Allowance, Int. J. Computer Application in Technology, Vols. 29, Nos.2-4, 2007, pp.96-101.
77. Y. Wu and M. Kato, A Feasibility Study of Ultrasonic shoe Centerless Grinding using Surface Grinder, Journal of the Japan Society for Abrasive Technology (JSAT), Vol.50, No.9, 2006, pp.525-530. (in Japanese)
78. Y. Wu, Y. Fan and M. Kato, Microscale Fabrication of Pin-shaped Machine Parts by a New Centerless Grinding Technique, International J. Nano-manufacturing, Vol.1, No.1, 2006, pp.3-16.
79. X.Wang, Y. Wu, W. Xu, L. Wang, J. Wang, Effect of focal offset on energy distribution in laser truing grinding wheel, Chinese Mechanical Engineering, Vol.17. No.7, (2006), pp.702-705. (In Chinese)
80. Y. Wu and M. Kato, Geometrical Arrangement of ID Grinding Wheel in Simultaneous-ID/OD Combination Centerless Grinding, International J. Manuf. Tech. Management, Vol. 9, Nos.1/2, 2006, pp. 160-171.
81. Y. Wu, Y. Fan and M. Kato, A Feasibility Study of Microscale Fabrication by Ultrasonic-Shoe Centerless Grinding, Precision Engineering (the Journal of the International Societies for Precision Engineering and Nanotechnology), Vol.30, No.2, 2006, pp.201-210.
82. M. Nomura, Y. Wu, Masana Kato and Toru Tachibana, Studies on Precision Internal Grinding of Small Holes with Ultrasonically Vibrated Grinding Wheel (Mechanism of Grinding Force Decrease due to the Ultrasonic Vibration of Grinding wheel), Journal of the Japan Society for Abrasive Technology (JSAT), Vol.49, No.12, 2005, pp.691-696. (in Japanese)
83. X. Wang, Y. Wu, J. Wang, W. Xu, Effect of incident angle on laser processing a small vitrified CBN grinding wheel, Journal of Dalian University of Technology, Vol.45, No.5, (2005), pp.672-675. (In Chinese)
84. Yongbo Wu, Jun Wang, Yufeng Fan and Masana Kato, Determination of Waviness Decrease Rate by Measuring the Frequency Characteristics of the Grinding Force in Centerless Grinding, Journal of Materials Processing Technology, Vol.170, No.3, 2005, pp.563-569.
85. Y. Wu, T. Kondo, M. Kato, A new centerless grinding technique using a surface grinder, Journal of Materials Processing Technology, Vols.162-163, 2005, pp.709-717.
86. K. Shimada, Y. Wu, Y. Matsuo, K. Yamamoto, Float polishing technique using new tool consisting of micro magnetic clusters, Journal of Materials Processing Technology, Vol.162/3, 2005, pp.690-695.
87. X.Y. Wang, Y.B. Wu, J. Wang, W.J. Xu, M. Kato, Absorbed energy in laser truing of a small vitrified CBN grinding wheel, Journal of Materials Processing Technology, Vols.164/5, 2005, pp.1128-1133.
88. Yongbo Wu, Kunio Shimada,Yat Choy Wong, Hiroki Konno and Masana Kato, An Approach to Surface Finishing Using a Newly Developed Magnetic Polishing Liquid (MPL), International Journal for Manufacturing Science and Technology, Vol. 5, No.2, 2005, pp.46-54.
89. K. Shimada, S. Shuchi, H. Kanno, Y. Wu and S. Kamiyama, Magnetic Cluster and its Applications,

Journal of Magnetism and Magnetic Materials, Vol. 289, 2005, pp.9-12.

90. Yongbo Wu, Yufeng Fan, Masana Kato, Tsunemoto Kuriyagawa, Katsuo Syoji and Toru Tachibana, Development of an Ultrasonic Elliptic Vibration Shoe Centerless Grinding Technique, Journal of Material Processing Technology, Vols. 155/6, 2004, pp.1780-1787.
91. Xuyue Wang, Yongbo Wu, Study on Incident Angle and Focus Offset when Laser Machining Nonplanar Parts, Aeronautical Manufacturing Technology, Vol.253, 2004, pp.129-132. (in Chinese)
92. Yongbo Wu, Masana Kato Toru Tachibana, Development of a New Centerless Grinding Method without Regulating Wheel (Influence of Geometrical Conditions on Workpiece Accuracy), Journal of the Japan Society for Abrasive Technology (JSAT), Vol. 48, No.5, 2004, pp.263-268. (in Japanese)
93. Yufeng Fan, Yongbo Wu, M. Kato, T. Tachibana, K. Syoji and T. Kuriyagawa, Design of an Ultrasonic Elliptic-Vibration Shoe and its Performance in Ultrasonic Elliptic-Vibration-Shoe Centerless Grinding, JSME International Journal, Series C, Vol. 47, No. 1, 2004, pp.43-51.
94. Yongbo Wu, Mitsuyoshi Nomura, Masana Kato and Toru Tachibana, Studies on Precision Internal Grinding of Small Holes with Ultrasonically Vibrated Grinding Wheel (Development of an Ultrasonic vibration Spindle and its Basic Performance in Grinding Operations), Journal of the Japan Society for Abrasive Technology (JSAT), Vol.47, No.10, 2003, pp.550-555. (in Japanese)
95. Kunio Shimada, Yongbo Wu and Yat Choy Wong, Effect of Magnetic Cluster and Magnetic Field on Polishing Using Magnetic Compound Fluid (MCF), Journal of Magnetism and Magnetic Materials, Vols.262, 2003, pp.242-247.
96. Yongbo Wu, Masana Kato, Katsuo Syoji, Tsunemoto Kuriyagawa and Toru Tachibana, Wear Deviation of Regulating Wheel and its Influence on Workpiece Accuracy in Centerless Infeed Grinding, Transactions of the Japan Society of Mechanical Engineers (JSME), Series C, Vol.68, No.671, 2002, pp.2145-2150. (in Japanese)
97. Yongbo Wu, Masana Kato, Katsuo Syoji, Tsunemoto Kuriyagawa and Toru Tachibana, Development of a New Centerless Grinding Method without Regulating Wheel (Experimental Apparatus and Grinding Tests), Journal of the Japan Society for Abrasive Technology (JSAT), Vol.46, No.10, 2002, pp.510-514. (in Japanese)
98. Yongbo Wu, Katsuo Syoji, Tsunemoto Kuriyagawa, Toru Tachibana and Masana Kato. Evaluation of Grinding Conditions by Detecting the Dynamic Components of Grinding Force in Centerless Grinding. Journal of the Japan Society for Precision Engineering (JSPE), Vol.67, No.9, 2001, pp.1443-1447. (in Japanese)
99. Tsunemoto Kuriyagawa, Nobuhito Yoshihara, Yongbo Wu and katsuo Syoji. Formation of Vertical Stripes on the Ground Surface in High-Reciprocation Profile Grinding. Journal of the Japan Society for Precision Engineering (JSPE), Vol.67, No.8, 2001, pp.1316-1320. (in Japanese)
100. Yongbo Wu, Katsuo Syoji, Tsunemoto Kuriyagawa and Toru Tachibana. Studies on Centerless Grinding (Influence of Grinding Wheel Irregularity on Workpiece Roundness). Transaction of the Japan Society of Mechanical Engineering (JSME), Series C, Vol.66, No.649, 2000, pp.3162-3167. (in Japanese)
101. Yongbo Wu, Katsuo Syoji and Tsunemoto Kuriyagawa. Investigation of Centerless Grinding(1st Report). International Journal of the Japan Society for Precision Engineering (JSPE), Vol.33, No.3, 1999, pp.185-190.
102. Yongbo Wu, Katsuo Syoji, Tsunemoto Kuriyagawa and Toru Tachibana. Studies on Centerless Grinding (3nd Report)-Evaluation Function of Grinding Conditions. Journal of the Japan Society for Precision Engineering (JSPE), Vol.65, No.6, 1999, pp.862-866. (in Japanese)
103. Yongbo Wu, Katsuo Syoji, Tsunemoto Kuriyagawa and Toru Tachibana. Studies on Centerless Grinding (2nd Report)-Optimum Grinding Conditions-. Journal of the Japan Society for Precision Engineering (JSPE), Vol.62, No.3, 1996, pp.433-437. (in Japanese)
104. Yongbo Wu, Katsuo Syoji and Tsunemoto Kuriyagawa. Studies on Centerless Grinding (1st Report, Grinding Force Measurement). Journal of the Japan Society for Precision Engineering (JSPE), Vol.61, No.3, 1995, pp.411-414. (in Japanese)

Refereed Proceedings Articles appeared on Special Issues of Periodic Journals:

105. Y. Wu, Q. Wang and M. Nomura, Proposal of tilt helical milling method for hole creation of carbon fiber reinforced plastic (CFRP), Advanced Materials Research, Vol. 1136 (2015) pp.190-195.
106. S. Li, Y. Wu and M. Nomura, Fundamental investigation of ultrasonic assisted surface grinding of Inconel 718, Advanced Materials Research, Vol. 1136 (2015) pp.365-370.
107. Y. Wang, Y. Wu and M. Nomura, Nano-precision polishing of oxygen-free copper using MCF (magnetic Compound Fluid) slurry, Advanced Materials Research, Vol. 1136 (2015) pp.455-460.
108. Wang Qiuyan, Zhao Wenxiang, Liang Zhiqiang, Wang Xibin, Jiao Li and Wu Yongbo, Research on Fractal Characterization in Grinding of Monocrystal Sapphire, Materials Science Forum, Vols. 800-801 (2014) pp.186-190.
109. Wang Qiuyan, Liang Zhiqiang, Wang Xibin, Zhao Wenxiang, Wu Yongbo, Jiao Li and Xie Lijing, A three-dimensional Fractal Analysis Method for Ground Monocrystal Sapphire Surface, Advanced Materials Research, Vol. 1017 (2014) pp.187-192.
110. Liang Zhiqiang, Mi Zhaoyang, Wang Xibin, Zhou Tianfeng, Wu Yongbo and Zhao Wenxiang, Numerical Investigation on the Grinding Forces in Ultrasonic Assisted Grinding of SiC Ceramics by Using SPH Method, Advanced Materials Research, Vol. 1017 (2014) pp.735-740.
111. M. Nomura, K. Suzuki, Y. Wu and M. Fujimoto, Small Hole Drilling for Polyphenylene Sulfide (PPS) –Influence of Depth-of-Cut on Burr Formation-, Advanced Materials Research, Vol. 1017 (2014) pp.355-360.
112. Yongbo Wu, A Fundamental Investigation on Ultrasonic Assisted Fixed Abrasive CMP (UF-CMP) of Silicon Wafer, Advanced Materials Research, Vol.983 (2014), pp.208-213.
113. Bo Wu, Zhenlong Yang, Mingtao Yang, Yongbo Wu, The Kinematic Resaerch in the Manufacture of Rigid Polyurethane Rubber Micro-V Grooves, Advanced Materials Research, Vol.941-944 (2014), pp.1257-1263.
114. Weiping Yang, Yongbo Wu and Jun Liu, Experimental Investigation on Hybrid Technology of Ultrasonic Vibration Assisted Chemo-Mechanical Grinding (CMG) Silicon Wafer, Applied Mechanics and Materials, Vols.275-277 (2013), pp.2290-2294.
115. LIANG Zhiqiang, ZHOU Tianfeng, WANG Xibin, WU Yongbo and ZHAO Wenxiang, Experimental investigations of grinding forces in elliptical ultrasonic assisted grinding (EUAG) of monocrystal sappire, Advanced Materials Research, Vol.797 (2013), pp.223-228.
116. Dong Lu, Qiang Wang, Yongbo Wu and Hongfu Huang, Effect of Ultrasonic Vibration Parameters on Machining Performance based on Tool-workpiece Contact Ratio, Advanced Materials Research, Vol.797 (2013), pp.332-337.
117. Y. Wu, J. Niu, M. Fujimoto and M. Nomura, Fundamental Machining Characteristics of Ultrasonic Assisted Turning of Titanium Alloy Ti-6Al-4V, Advanced Materials Research, Vol.797 (2013), pp.344-349.
118. Wenqing Song, Yongbo Wu, Jiangguo Cao, Jingti Niu, A Study on Ultrasonic Assisted Grinding of Nickel-Based Superalloys, Advanced Materials Research, Vol.797 (2013), pp.356-361.
119. Jianguo Cao, Y. Wu, Huiru Guo, Yaguo Li, M.Fujimoto and A. Ohmura, Simulation Investigation Ultrasonically Assisted Grinding of SiC ceramics with Single Diamond Abrasive Grain, Key Engineering Materials, Vols. 523-524 (2012), pp.178-183.
120. H.R. Guo., Y. Wu, Y.G. Li, J.G. Cao, M.Fujimoto and S.D. Jacobs, Technical Performance of Zirconia-coated Carbonyl-iron-particles based Magnetic Compound Fluid Slurry in Ultrafine Polishing of PMMA, Key Engineering Materials, Vols. 523-524 (2012), pp.161-166.
121. Yaguo Li, Y. Wu, Libo Zhou, Huiru Guo and Jianguo Cao, Investigation into Chemo-Mechanical Fixed Abrasive Polishing of Fused Silica with the Assistance of Ultrasonic Vibration, Key Engineering Materials, Vols. 523-524 (2012), pp.155-160.
122. Wei Xing Xu, LC Zhang, and Yong Bo Wu, Micromechanical Modelling of Elliptic Vibration-Assisted Cutting of Unidirectional FRP Composites, Advanced Materials Research, Vols. 591-593 (2012) pp 531-534.
123. Y. Wu, L. Jiao, H. Guo, M. Fujimoto and K. Shimada, Ultrafine Surface Finishing of Fused Silica Glass Using MCF Magnetic Compound Fluid Wheel, Advanced Materials Research, Vol. 565 (2012)

pp 3-9.

124. Dong Lu, Hongfu Huang, Yongbo Wu and Mingming Yang, Finite Element Analysis for Ti-6Al-4V in Ultrasonic-Vibration-Assisted Micro-Cutting, Advanced Materials Research, Vol. 500 (2012) pp 345-350.
125. Hongfu Huang, Dong Lu, Yongbo Wu and Mingming Yang, Finite Element Analysis of Ultrasonic Vibration Assisted Milling of for Ti-6Al-4V, Advanced Materials Research, Vol. 538-541 (2012) pp 823-827.
126. Dong Lu, Hongfu Huang, Yongbo Wu and Mingming Yang, Finite Element Analysis for Ti-6Al-4V in Ultrasonic-Vibration-Assisted Micro-Cutting, Advanced Materials Research, Vol. 500 (2012) pp 345-350.
127. Z.Z. Wang, Y.B. Guo and Y.B. Wu, Development of a Two-dimensional Ultrasonic Vibration Assisted Machining Technology with Tool Vibration, Key Engineering Materials, Vol. 487 (2011) pp.419-422.
128. Y.F. Peng, Z.Q. Liang, Y.B. Wu, Y.B. Guo, T. Jiang and X. Chen, Research on the Ducttle Chip Formation in Grinding of Brittle Materials, Key Engineering Materials, Vol. 487 (2011) pp.58-62.
129. X.Y. Wang, H.R. Guo, Y.B. Wu, W.J. Xu and D.M. Guo, Laser cladding of micro-fluidic channel mold, Advanced Materials Research, Vols. 216 (2011) pp 424-429.
130. Yongbo Wu, Takashi Sato, Jianhui Qiu and Weimin Lin, Proposal of a New Ultrasonic Welding Technique for Thermoplastic Polymer, Advanced Materials Research, Vols. 83-86 (2010) pp 1129-1134.
131. M. Nomura, Y. Wu, T.Kuriyagawa, T. Kawashima, and T. Shibata, Study of Ultrasonically Assisted Internal Grinding of Small Holes: Effect of Grain Size of cBN Grinding Wheel, Advanced Materials Research, Vols. 83-86(2010), pp.1002-1008.
132. Y. Wu, Z. Liang, X. Wang and W. Lin, Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Sapphire-Wear Behaviors of Resin Bond Diamond Wheel-, Advanced Materials Research, Vols., 126-128 (2010), pp.573-578.
133. Z. Liang, X. Wang, Y. Wu and W. Zhao, Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Sapphire-Surface Formation Characteristics-, Advanced Materials Research, Vols., 126-128 (2010), pp.367-373.
134. Wang Z.Z, Y. Wu, L. Zhou, Guo Y.B. and Wu C.X, Two Dimensional Ultrasonic Vibration Assisted Chemo-mechanical Grinding of Si Wafer, Advanced Materials Research, Vols., 126-128 (2010), pp.282-288.
135. T. Sato, Y. Wu, W. Lin and K. Shimada, Study of Dynamic Magnetic Field Assisted Finishing for Metal Mold using Magnetic Compound Fluid (MCF), Key Engineering Materials, Vols. 447-448 (2010) pp.258-262.
136. W. Xu, Yong Bo Wu, Takashi Sato, Z. Liang, W.M. Lin, Experimental Study of Tangential-Feed Centerless Grinding Process Performed on Surface Grinder, Materials Science Forum , Vols.626-627 (2009) pp.17-20.
137. W. Xu, Yong Bo Wu, Takashi Sato, Z. Liang, W.M. Lin, Simulation Investigation of Tangential-Feed Centerless Grinding Process Performed on Surface Grinder, Materials Science Forum , Vols.626-627 (2009) pp.23-28.
138. Z. Liang, Yong Bo Wu, X.B. Wang, Y. Peng, W. Xu, Wen Xiang Zhao, A Two-Dimensional Ultrasonically Assisted Grinding Technique for High Efficiency Machining of Sapphire Substrate, Materials Science Forum , Vols.626-627 (2009) pp.35-40.
139. Takashi Sato, Yongbo Wu, Weimin Lin and Kunio Shimada, Study of Three-Dimensional Polishing using Magnetic Compound Fluid (MCF), Advanced Materials Research, Vols.76-78, 2009, pp.288-293.
140. Y.Wu, T.Sato, W.Lin, K.Yamamoto and K.Shimada, The detailed Performance of MCF Polishing Liquid in Nano-precision Surface Treatment of Acrylic Resin, Advanced Materials Research, Vols. 76-78, 2009, pp.331-336.
141. H.P. Yuan, H. Gao, Y.J.Bao and Y. Wu, Grinding of Carbon/Expoxy Composites using Electroplated CBN Wheel with Controlled Abrasive Clusters, Key Engineering Materials, Vol. 389-390, 2009, pp. 24-29.
142. Y. Wu and K. Shimada, Quartz Wafer Machining using MCF (Magnetic Compound Fluid) Polishing

Liquid Frozen with Liquid Nitrogen, Key Engineering Materials, Vol. 389-390, 2009, pp. 187-192.

143. M. Nomura, Y. Wu, T. Kuriyagawa, T. Kawashima and T. Shibada, Effects of Grain Size and Concentration of Grinding Wheel in Ultrasonically Assisted Grinding, Key Engineering Materials, Vol. 389-390, 2009, pp. 283-288.
144. H. Cheng, H. Tam, Y. Gao, Y. Wu, Y. Wang, Wear Characteristics of the Sub-aperture Tools and Material Removal Rate in Precision Grinding with Loose Abrasive, Key Engineering Materials, Vol. 329, 2007, pp. 69-74.
145. Y. Wu, X. Wang, T. Tachibana and M. Kato, Laser Truing and Dressing of Small Vitrified CBN Grinding Wheel, Key Engineering Materials, Vol. 329, 2006, pp. 163-168.
146. J. Jiang, Y. Wu, X. Y. Wang and M. Kato, A New Magnetic Polishing Liquid (MPL) for Precision Surface Finishing, Key Engineering Materials, Vols.315-316, 2006, pp.671-675.
147. X.Y. Wang, Y. Wu, R. K. Kang, D. M. Guo, W. J. Xu and M. Kato, Energy Model in Laser Processing of a Cylindrical Grinding Wheel, Key Engineering Materials, Vols.304/5, 2006, pp.33-37.
148. Y. Wu, Y. Fan, T. Tachibana and M. Kato, Effect of Ultrasonic Elliptic Vibration on Friction Between Shoe and Workpiece in Ultrasonic Elliptic-Vibration Shoe Centerless Grinding, Key Engineering Materials, Vols. 291/2, 2005, pp.33-38.
149. Y. Wu, K. Shimada, Y. C. Wong and M. Kato, Effects of Particles Blend Ratio on Surface Quality in Surface Polishing Using Magnetic Polishing Liquid (MPL), Key Engineering Materials, Vols. 291/2, 2005, pp.337-342.
150. M. Nomura, Y. Wu, M. Kato and T. Kuriyagawa, Effects of Ultrasonic Vibration in the Truing and Dressing of CBN Grinding Wheel used for Internal grinding of Small Holes, Key Engineering Materials, Vols. 291/2, 2005, pp.183-188.
151. X.Y. Wang, Y. Wu, J. Wang, W. J. Xu and M. Kato, Energy-mode adjustment in laser processing a small vitrified CBN grinding wheel, Key Engineering Materials, Vols. 291/2, 2005, pp.177-182.
152. Yongbo Wu, Mitsuyoshi Nomura, Zhijing Feng and Masana Kato, Modeling of Grinding Force in Constant-Depth-of-Cut Ultrasonically Assisted Grinding, Materials Science Forum, Vols. 471/2, 2004, pp.101-106.
153. H. B. Chen, Z. J. Feng and Yongbo Wu,, Process Technology of Aspherical Mirrors Manufacturing with Magnetorheological Finishing, Materials Science Forum, Vols. 471-472, 2004, pp.6-10.
154. Yongbo Wu, Yufeng Fan, Masana Kato, Toru Tachibana, Katsuo Syoji and Tsunemoto Kuriyagawa, Determination of an Optimum Geometrical Arrangement of Workpiece in the Ultrasonic Elliptic-vibration Shoe Centerless Grinding, Key Engineering Materials, Vols. 257-258, 2004, pp.495-500.
155. Haobo Cheng, Zhijing Feng and Yongbo Wu: Fabrication of Off-axis Aspherical Mirrors with Loose Abrasive Point-contact Machining, Key Engineering Materials, Vols.257/8, 2003, pp.153-158.
156. Yun Zhang, Zhijing Feng, Hon-yuen Tam and Yongbo Wu: Pressure-based Grinding and Polishing of Free-form Lens, Key Engineering Materials, Vols.257-258, 2003, pp.401-406.
157. Yongbo Wu, Yufeng Fan, Masana Kato, Jun Wang, Katsuo Syoji and Tsunemoto Kuriyagawa, A New Centerless Grinding Method without Employing Regulating wheel, Key Engineering Materials, Vols.238/9, 2003, pp.355-360.

International Conference Papers:

158. Qiang Wang, Yongbo Wu, Ja Gu, Dong Lu, Yuebo Ji, Mitsuyoshi Nomura, Fundamental Machining Characteristics of the In-base-plane ultrasonic elliptical vibration assisted turning of Incone 718, Proc. Of 18th CIPR Conference on Electro Physical and Chemical Machining (ISEM 18), pp.858-862, 2016.4.18-22, Tokyo, Japan
159. Youliang Wang, Yongbo Wu and Mitsuyoshi Nomura, A novel MC slurry and its performance in V-grooves polishing, Abstract book of MMM/Intermag 2016 joint conference, pp.581, 2016.1.11-15, SAN DIEGO, CALIFORNIA, USA.
160. Sisi Li, Yongbo Wu, Mitsuyoshi Nomura and Ji Yuebo, On the chip formation in ultrasonic assisted grinding of Inconel 718, Proc. Of 11th CJUMP (China-Japan international conference on ultra-precision machining process), pp.93-97, 2015.11.25-27, Itabashi, Tokyo, Japan.

161. Takuya Miura, Yongbo Wu, Masakazu Fujimoto, Mitsuyoshi Nomura and Zhiqiang Liang, Grinding performance of spiral ultrasonic assisted grinding for monocrystal sapphire using vitrified diamond wheel, Proc. of LEM21 (CD-ROM), 2015.10.18-22, Kyoto, Japan
162. Yonliang Wang, Yongbo Wu and Mitsuyoshi Nomura, Magnetic field-assisted polishing of miniature V-grooves using MCF (Magnetic Compound Fluid) slurry, Proc. of LEM21 (CD-ROM), 2015.10.18-22, Kyoto, Japan
163. Mitsuyoshi Nomura, Yutaka Matsushima, Yongbo Wu, Masakazu Fujimoto and Zhou Libo, Effects of ultrasonic vibration on abrasive pellet working life for Si wafer using ultrasonic assisted fixed abrasive chemical mechanical polishing(UF-CMP), Proc. of LEM21 (CD-ROM), 2015.10.18-22, Kyoto, Japan
164. Masakazu Fujimoto, Yongbo Wu, Mitsuyoshi Nomura and Kunio Shimada, Ultra precision surface polishing of fused silica using MCF wheel based on prolongation of wheel life, Proc. of LEM21 (CD-ROM), 2015.10.18-22, Kyoto, Japan
165. Y. Wu, S. Li, M. Nomura, S. Kobayashi and T. Tachibana, Ultrasonic Assisted Electrolutic Grinding of Titanium Alloy Ti-6Al-4V, Abstract book of the 16th International manufacturing conference in China (IMCC2015), pp.57, 2015.10.22-25, Hangzhou, China
166. Masakazu Fujimoto, Yongbo Wu, Mitsuyoshi Nomura, Hidenari Kanai and Masahiko Jin, Wear behavior of mini-size diamond wheel in ultrasonic assisted grinding, Proc. of ICPE2014, pp.147-152, 2014.7.23-25, Kanazawa, Japan.
167. Y. Wang, Y. Wu, H. Guo, M. Fujimoto, M. Nomura and K. Shimada, A new MCF (magnetic compound fluid) slurry and its performance in magnetic field-assisted polishing of oxygen-free copper, Abstract book of MMM2014 (59th Annual Conference on Magnetism and Magnetic Materials), pp.283, 2014.11.3-7, Honolulu, Hawaii, USA..
168. Qiuyan Wang, Zhiqiang Liang, Xibin Wang, Wenxiang Zhao, Yongbo Wu, Li Jiao and Tianfeng Zhou, Research on surface formation mechanism in elliptical ultrasonic assisted grinding (EUAG) of monocrystal sapphire using structure function fractal method, Proc. of 10th ASME 2015 Manufacturing Science and Engineering Conference (MSEC2015), 2015.6.5-12, Charlotte, North Carolina, USA (Paper No. MSEC2015-9300).
169. Yongbo Wu, Nano-precision Polishing of CVD SiC Ceramics using MCF (magnetic Compound Fluid) Slurry, Book of Abstracts of nanoMan2014 (4th International nanoManufacturing Conference), pp.D3-1, 2014.7.7-11, Bremen, Germany.
170. Jianguo Cao, Yongbo Wu, Masakazu Fujimoto, Mitsuyoshi Nomura, Simulation investigation of the cutting process in ultrasonic assisted grinding of SiC ceramics from scratching test with a single diamond tool using particle hydrodynamic (SPH) method, Proc. of 14th euspen int. conf., pp.267-270, 2014.6.2-6, Dubrovnik, Croatia.
171. M. Fujimoto, Y. Wu, M. Nomura, H. Kanai and M. Jin, Surface topography of small diameter diamond wheel in ultrasonic assisted grinding, Proc. of LEM21 (USB), pp.97-102, 2013.11.7-8, Matsushima, Miyagi, Japan
172. H. Guo, Y. Wu, M. Fujimoto and M. Nomura, Relationship between polishing force distribution and material removal in MCF polishing process, Proc. of LEM21 (USB), pp.323-328, 2013.11.7-8, Matsushima, Miyagi, Japan
173. J. Cao, Y. Wu, H. Guo, M. Fujimoto and M. Nomuran, Experimental investigation of material removal mechanism in ultrasonic assisted grinding of SiC ceramics using a single diamond tool, Proc. of LEM21 (USB), pp.93-96, 2013.11.7-8, Matsushima, Miyagi, Japan
174. Yongbo Wu, Weiping Yang and Masakazu Fujimoto, A feasibility study of silicon wafer treatment by ultrasonic-assisted fixed-abrasive CMP (UF-CMP), Proc. of Int. Conf. of Manuf. Tech. Engineers (ICMTE2012), 2012.10.18-19 in Seoul, Korea.
175. Yaguo Li and Yongbo Wu, Hybrid Polishing of Fused Silica Glass with Bound-Abrasive Polishers in Conjunction with Vibration, Proc. of SPIE, Vol. 8486, 84860N-2, 2012.8 in USA
176. Masakazu Fujimoto, Yongbo Wu, Hidenari Kanai and Masahiko Jin, Grinding Characteristics of Mold Steel with Miro 3D Structure in Ultrasonically Assisted Precision Grinding, International Journal of Nanomanufacturing (IJNM), Proc. of NanoMan2012, RIKEN, Tokyo, July 25-27, 2012.
177. Yaguo Li, Yongbo Wu, Masakazu Fujimoto, Libo Zhou, Polishing fused silica glass by incorporating

ultrasonic vibration into fixed abrasive polishers, Proceedings of the 12th euspen International Conference (Stockholm, June 2012), pp.344-347.

178. Yaguo Li, Yongbo Wu, Precision Manufacturing of Fused Silica Glass by Combining Bound-Abrasive Polishing with Ultrasonic Vibration, Proc. 6th International Symposium on Advanced Optical Manufacturing and Testing Technologies (AOMATT 2012), April 26-29, 2012, Xiamen, China
179. M. Fujimoto, Y. Wu and J. Cao, High Precision Ultrasonically Assisted Internal Grinding (UAIG) of Difficult-to-machining Materials using Metal Bonded Diamond Wheels, Proc. LEM21 (CD Rome), Nov. 8-10, 2011, Omiya, Saitama, Japan.
180. Y. Wu, T. Sato and W. Lin, MCF Polishing Process for Free-formed Resin Devices using Robotic Arm, AIP Conference Proceedings, Vol. 1315, pp. 979-984 (Proc. AMPT2010, pp.299, Oct. 24-27, 2010, Paris, France).
181. W. Xu, Y. Wu, T. Sato and W. Lin, Performing in-feed type centerless grinding process on a surface grinder, AIP Conference Proceedings, Vol. 1315, pp. 985-990 (Proc. AMPT2010, pp.301, Oct. 24-27, 2010, Paris, France).
182. Z.Q. Liang, X.B. Wang, Y. Wu, W.X. Zhao, Y.F. Peng, T. Sato, Wear Characteristics of Diamond Wheel in Elliptical Ultrasonic Assisted Grinding (EUAG) of Monocrystal Silicon, SPIE Proceedings (Proc. AOMTT-International Symposium on Advanced Optical Manufacturing and Testing Technologies-2010), pp.256-261, April 26-29, 2010, Dalian, China
183. Y. Peng, Y. Wu, Z. Liang, Y. Guo, Kinematical Characteristics of Two-Dimensional Vertical Ultrasonic Vibration-assisted Grinding Technology, SPIE Proceedings (Proc. AOMTT-International Symposium on Advanced Optical Manufacturing and Testing Technologies-2010), pp.138-143, April 26-29, 2010, Dalian, China
184. Y. Wu and W. Xu, Fabrication of Microscale Cylindrical Parts by Ultrasonic-shoe Centerless Grinding, Proc. of ISMNM2010, pp.149-153, Aug. 18-20, 2010, Guilin, China. (Invited)
185. M. Fujimoto and Y. Wu, Nano Polishing of Three-dimensional Micro Structure Using Magnetic Compound Fluid (MCF), Proc. Of ISMNM2010, pp.149-153, Aug. 18-20, 2010, Guilin, China. (Invited).
186. Y. Wu and Z. Liang, Surface Formation Characteristics in Elliptical Ultrasonic Assisted Grinding of Monocrystal Silicon, Proc. of NanoMan2010, pp. 38, Sept. 24-27, 2010, Tianjin, China (invited).
187. T. Sato, Y. Wu, W. Lin and K. Shimada, Study of dynamic magnetic field assisted finishing for metal mold using magnetic compound fluid (MCF), Proceedings of ICoPE2010, pp.105-110, July 27-29, Singapore.
188. Z. Liang, Y. Wu, T.Sato and W.Lin, X. Wang and W. Zhao, Two-dimensional Ultrasonically Assisted Grinding of Monocrystal Silicon, Proceedings of LEM21, pp.535-540, Dec2-4, 2009, Osaka University, Japan.
189. W. Xu, Y.Wu, T.Sato and W.Lin, A Method to Increase Material Removal Rate in Tangential-feed Centerless Grinding Performed on Surface Grinder, Proceedings of LEM21, pp.559-562, Dec2-4, 2009, Osaka University, Japan.
190. Yuta Inagaki, Yongbo Wu, Takashi Sato, Weimin Lin and Kunio Shimada, A feasibility study on the thinning process of quartz wafer using MCF Polishing Liquid, Proceedings of AMPT2009, pp.256, Oct26-29, 2009, Kuala Lumpur, Malaysia.
191. Y.Wu, Y.Takahashi, T.Sato, W.Lin and M.Take, Effects of Ultrasonic Vibration in Truing/Dressing of Small Metal Bonded Diamond Grinding Wheel used for Internal Grinding, Proceedings of AMPT2009, pp.125, Oct26-29, 2009, Kuala Lumpur, Malaysia.
192. Y.Wu, T.Sato, W.Lin, K.Yamamoto and K.Shimada, The detailed Performance of MCF Polishing Liquid in Nano-precision Surface Treatment of Acrylic Resin, Proceedings of the 12th International symposium on Advances in Abrasive Technology (ISAAT2009), pp.331-336, Sep27-30, 2009, Gold Coast, Australia.
193. Takashi Sato, Yongbo Wu, Weimin Lin and Kunio Shimada, Study of Three-Dimensional Polishing using Magnetic Compound Fluid (MCF), Proceedings of the 12th International symposium on Advances in Abrasive Technology (ISAAT2009), pp.288-293, Sep27-30, 2009, Gold Coast, Australia
194. H.P. Yuan, H. Gao, Y.J.Bao and Y. Wu, Grinding of Carbon/Expoxy Composites using Electroplated

CBN Wheel with Controlled Abrasive Clusters, Proceedings of the 11th International symposium on Advances in Abrasive Technology (ISAAT2008)， pp.24-29, Sep30-Oct3, 2008, Awajishima-city, Japan.

195. Y. Wu and K. Shimada, Quartz Wafer Machining using MCF (Magnetic Compound Fluid) Polishing Liquid Frozen with Liquid Nitrogen, Proceedings of the 11th International symposium on Advances in Abrasive Technology (ISAAT2008)， pp.187-192, Sep30-Oct3, 2008, Awajishima-city, Japan.
196. M. Nomura, Y. Wu, T. Kuriyagawa, T. Kawashima and T. Shibada, Effects of Grain Size and Concentration of Grinding Wheel in Ultrasonically Assisted Grinding, Proceedings of the 11th International symposium on Advances in Abrasive Technology (ISAAT2008)， pp.283-288, Sep30-Oct3, 2008, Awajishima-city, Japan.
197. Y. Wu, T. Sato, J. Qiu and W. Lin, Proposal of a New Ultrasonic Welding Technique for Thermoplastic Polymer, Abstract book of 11th Int. Conf. on Advances in Materials Processing Technology (AMPT2008), Nov. 2-5, (2008), pp.162. (Bahrain)
198. M. Nomura, Y. Wu, T. Kuriyagawa, T. Kawashima and T. Shibata, Study of Ultrasonically Assisted Internal Grinding of Small Holes: The effect of Grain Size of CBN Grinding Wheel, Abstract book of 11th Int. Conf. on Advances in Materials Processing Technology (AMPT2008), Nov. 2-5, (2008), pp.277. (Bahrain)
199. S. Yokoyama, Y. Wu, T. Sato, W. Lin and T. Tachibana, Development of a New Rotary Ultrasonic Spindle for Precision Ultrasonically Assisted Grinding, Abstract book of 11th Int. Conf. on Advances in Materials Processing Technology (AMPT2008), Nov. 2-5, (2008), pp.232. (Bahrain)
200. Liu Shengping, Wu Yongbo and Wei Yunlong, The Effect of Surface Roughness of Substrates on Properties of Reconstituted Biomembranes, Proc. ThinFilms2008 (4th International Conference on Technological Advances of Thin Films and Surface Coatings), July 13-16, (2008), pp.212-218, (Singapore)
201. Y. Wu and T. Tachibana, Friction coefficient of regulating wheel in centerless grinding, Proc. ISAAT2007, Sept. 25-28, (2007), pp.311-318. (Dearborn, USA)
202. N. Kobayashi, Y. Wu and M. Nomura, Precision treatment of silicon wafer edge utilizing ultrasonically assisted polishing (UAP) technique, Proc. 10th Int. Conf. on Advances in Materials Processing Technology (AMPT2007), Oct. 7-11, (2007), pp.1190-1198. (Daejeon, Korea)
203. T. Furuya, Y. Wu, M. Nomura, K. Shimada and K. Yamamoto, Fundamental performance of MCF (Magnetic Compound Fluid) polishing liquid contact-free polishing of metal surface, Proc. 10th Int. Conf. on Advances in Materials Processing Technology (AMPT2007), Oct. 7-11, (2007), pp.1199-1208. (Daejeon, Korea)
204. M. Nomura, Y. Wu and T. Kuriyagawa, Investigation of internal ultrasonically assisted grinding of small holes: effect of ultrasonic vibration in truing and dressing of small CBN grinding wheel, Proc. 10th Int. Conf. on Advances in Materials Processing Technology (AMPT2007), Oct. 7-11, (2007), pp.203. (Daejeon, Korea).
205. Y. Wu and M. Kato, Rounding Process of Workpiece in Throughfeed Centerless Grinding with Large Grinding Allowance, Proc. of the International Conference on Surface Finishing Technology and Surface Engineering (ICSFT2006), Sept. 24-27, (2006), pp.379-386. (Dalian, China).
206. Y. Wu, K. Shimada and T.Kuriyagawa, An Ultra-Precision Polishing Technique using High-Velocity Abrasive Fluid, Proc. of the International Conference on Advances in Materials and Processing Technology (AMPT2006), July 30 –August 3, (2006), SE Ⅰ 4-403 (CD-ROM). (Las Vegas, USA).
207. Y. Wu, K. Shimada and T.Kuriyagawa, The Behavor of Abrasive Particles in High-Velocity Abrasive Fluid, Proc. of the International Conference on Advances in Materials and Processing Technology (AMPT2006), July 30 –August 3, (2006), SE Ⅰ.4 -404 (CD-ROM),. (Las Vegas, USA).
208. K. Shimada, Y. Matsuo, K. Yamamoto and Y. Wu, Study on New Float Polishing with Large Clearance utilizing Magnetic Compound Fluid (Possibility and Examples of the MCF Polishing Technique), Proc. of the International Conference on Advances in Materials and Processing Technology (AMPT2006), July 30 –August 3, (2006), SE Ⅱ. 3-245 (CD-ROM). (Las Vegas, USA).
209. K. Shimada, Y. Matsuo, K. Yamamoto and Y. Wu, Study on New Float Polishing with Large Clearance utilizing Magnetic Compound Fluid (Polishing Mechanism and Effects of Polishing

Parameters), Proc. of the International Conference on Advances in Materials and Processing Technology (AMPT2006), July 30 –August 3, (2006), SE Ⅱ.3-244 (CD-ROM). (Las Vegas, USA).

210. Y. C. Wong, Y. Wu, M. Kato and K. Shimada, The Polishing of Soldering on H13 steel with Magnetic Compound Fluid, Proceedings of International Conference on Precision Engineering and Micro/Nano Technology (ASPEN2005), Vol.1, Nov., 2005, pp.136-140.
211. Y. Wu, M. Kato, J. Jiang, X. Wang, K. Shimada and Y. C. Wong, New Polishing Method with MCF (Magnetic Compound Fluid) Polishing Tool, Proceedings of International Conference on Precision Engineering and Micro/Nano Technology (ASPEN2005), Vol.1, Nov., 2005, pp.141-146.
212. Y. Wu, Y. Fan and Masana Kato, Controlling the Workpiece Rotation Speed with an Ultrasonic Regulator in Microscale Centerless Grinding, Proceedings of 3rd International Conference on Leading Edge Manufacturing in the 21st Century (LEM21), Oct., 19-22, 2005, pp.1223-1228.
213. Y. Wu, M. Tamano and M. Kato, Inducing a Machine Spindle to Ultrasonically Vibrate by Fluctuating Electromagnetic Force, Proceedings of 12th International Symposium on Interdisciplinary Electromagnetic, Mechanic & Biomedical Problems, Sept., 2005, pp.400-401.
214. Y. Wu, K. Tetsuka, M. Kato, K. Shimada, Y. C. Wong, A New Magnetic Polishing Liquid (MPL) Proposed for Contact Force-free Surface Finishing: Part 2, Detailed Performances in Metal Surface Finishing, Proceedings of 12th International Symposium on Interdisciplinary Electromagnetic, Mechanic & Biomedical Problems, Sept., 2005, pp.152-153.
215. Y. Wu, K. Tetsuka, M. Kato, K. Shimada, Y. C. Wong, A New Magnetic Polishing Liquid (MPL) Proposed for Contact Force-free Surface Finishing: Part 1, Behaviour under Magnetic field and Fundamental Performance in Metal Surface Finishing, Proceedings of 12th International Symposium on Interdisciplinary Electromagnetic, Mechanic & Biomedical Problems, Sept., 2005, pp.150-151.
216. X.Y. Wang, Y.B. Wu, J. Wang, W.J. Xu, M. Kato, Absorbed energy in laser truing of a small vitrified CBN grinding wheel, Proceedings of 8th International Conference on Advances in Materials and Processing Technology, May, 2005, pp.595-598.
217. K. Shimada, Y. Wu, Y. Matsuo, K. Yamamoto, Float polishing technique using new tool consisting of micro magnetic clusters, Proceedings of 8th International Conference on Advances in Materials and Processing Technology, May, 2005, pp.547-550.
218. Y. Wu, T. Kondo, M. Kato, A new centerless grinding technique using a surface grinder, Proceedings of 8th International Conference on Advances in Materials and Processing Technology, May, 2005, pp.599-512.
219. Yongbo Wu, Takahiro Kondo and Masana Kato, A Centerless Grinding Unit Used for Precisely Processing Ferrules of Optical Fiber Connector, Proceedings of SPIE, Vol.5650, 2004, pp.356-364.
220. Yongbo Wu and Masana Kato, Geometrical Arrangement of ID Grinding Wheel in Simultaneous-ID/OD Combination Centerless Grinding, Proceedings of 7th International Symposium on Advances in Abrasive Technology, June, 2004, pp.301-305.
221. Xuyue Wang, Yongbo Wu and Jun Wang, Effect of Incident Angle and Critical Angle on Laser Processing of a Small Vitrified CBN Grinding Wheel, Proceedings of 7th International Symposium on Advances in Abrasive Technology, June, 2004, pp.295-300.
222. Yongbo Wu, Yat Choy Wong, Kunio Shimada, Hiroki Konno and Masana Kato, An Approach to Surface Finishing Using a Newly Developed Magnetic Polishing Liquid (MPL), Proceedings of International Conference on Precision Engineering 2004 (ICoPE 2004), March 2004, pp. 498-505.
223. Yongbo Wu, Mitsuyoshi Nomura, Masana Kato and Toru Tachibana, Fundamental Investigation of Internal Ultrasonic Vibration Assisted Grinding of Small Holes, Proceedings of International Conference on Leading Edge Manufacturing in 21th Century (LEM21), Nov. 2003, pp.145-150.
224. Yufeng Fan, Yongbo Wu, Masana Kato and Toru Tachibana: Computer Simulation of Ceramic Bearing Ball's Sphericizing Process in Centerless Ball Grinding, Proceedings of First International Conference on Knowledge Economy and Development of Science and Technology "Knowledge Economy meets Science and Technology" (KEST2003), Sept. 2003, pp.200-205.
225. Hiroki Konno, Yongbo Wu, Kunio Shimada, Yat Choy Wong and Masana Kato: A New Magnetic Polishing Liquid (MPL) for Precision Surface Finishing, Proceedings of First International Conference

on Knowledge Economy and Development of Science and Technology "Knowledge Economy meets Science and Technology" (KEST2003), Sept. 2003, pp.206-211.

226. Kunio Shimada, Yongbo Wu, Yat Choy Wong, et al., Experimental Investigation of the Effect of the MPL (Magnetic Polishing Liquid) on Surface Finishing, Proceedings of SPIE's International Symposium on Smart Materials, Nano-, and Micro-Smart Systems, Vol.4936, Dec. 2002, pp.312-320.
227. Yongbo Wu, Masana Kato, Katsuo Syoji and Tsunemoto Kuriyagawa, High Velocity Fluid Polishing of Optical Components, Proceedings of 5th International Conference on Frontiers of Design and Manufacturing, July 2002, pp. 268-273.
228. Yat Choy Wong, Yongbo Wu, Kunio Shimada, Masana Kato, The Effects of Polishing with Magnetic Compound Fluid, Proceedings of the 5th International Conference & Awareness Workshop on Behaviour of Materials in Machining, Nov. 2002, pp.293-296.
229. Yongbo Wu, Masana Kato, Katsuo Syoji and Tsunemoto Kuriyagawa, Design of Grinding Cycle in Centerless Infeed Grinding, in: Advances in Abrasive Technology, edited by N. Yasunaga, J. Tamaki, K. Suzuki and T. Uematsu, Journal of the Japan Society for Abrasive Technology (JSAT), 2000, pp. 268-273.
230. Yinbiao Guo, Katsuo Ssyoji, Tsunemoto Kuriyagawa and Yongbo Wu, A High-efficiency Machining Method for Quartz Wafer with Flexible Belt Wheel. Proceedings of 5th International Conference on Progress of Machining Technology, Sept. 2000, pp24-29.
231. Yongbo Wu, Masana Kato, Katsuo Syoji and Tsunemoto Kuriyagawa, Investigation of Workpiece Rounding Process and Optimum Grinding conditions in Centerless Grinding, Proceedings of 2000 International Conference on Advanced Manufacturing Systems and Manufacturing Automation, June 2000, pp. 1026-1029.
232. Yongbo Wu, Tsunemoto Kuriyagawa and Katsuo Syoji: Real Time Monitoring of Centerless Grinding Process Using Wavelet Transform, in: Abrasive Technology, edited by J. Wang, W. Scott and L. Zhang, World Scientific, 1999, pp.25-30.

Review/invited articles

233. Yongbo Wu and Mitsuyoshi Nomura, Innovation of multi-field assisted precision machining technology, J. JSPE, Vol.82, No.5 (2016) pp.434-435. (in Japanese)
234. M. Fujimoto and Y. Wu, Precision grinding mechanism from the viewpoint of wheel working surface: Performance improvement with assistance of ultrasonic vibration, Industrial Materials, Vol.64, No.3, 2016, pp.14-15. (in Japanese)
235. M. Nomura, Y. Wu, Two dimensional (elliptic) ultrasonic assisted high efficiency grinding, Ultrasonic Techno,Vol.27, No.5, 2015, pp.27-31. (in Japanese)
236. M. Nomura, Y. Wu, Ultrasonic assisted fixed abrasive CMP of Si wafer, Ultrasonic Techno,Vol.27, No.5, 2015, pp.36-39. (in Japanese)
237. M. Fujimoto, Y. Wu, Ultrasonic assisted micro-width mirror grinding for the fabrication of miniature 3D structure, Ultrasonic Techno,Vol.27, No.3-4, 2015, pp.60-63. (in Japanese)
238. Y. Wu, M. Fujimoto, Z. Liang, Proposal of spiral ultrasonic assisted grinding and its performance in Single crystal silicon grinding, Ultrasonic Techno,Vol.224, No.6, 2012, pp.43-47. (in Japanese)
239. Y. Wu, Spiral ultrasonic assisted grinding of single crystal hard-brittle materials, J. JSAT, Vol.57, No.7 (2013) pp.43-49. (in Japanese)
240. Y. Wu, Robotic polishing of polymer devices with MCF slurry, J. JSAT, Vol.57, No.9 (2013) pp.578-581. (in Japanese)
241. Y. Wu, L. Wang, W. Yang, D. Lu, Two-dimensional (elliptic) ultrasonic assisted fixed abrasive chemo-mechanical machining of single crystal Silicon, Ultrasonic Techno,Vol.26, No.1, 2014, pp.83-87. (in Japanese)
242. Y. Wu, State of the art in grinding and polishing, Journal of JSME, Vol. 115, No.1125, 2012, pp.59. (in Japanese)
243. Y. W, Z. Liang and M. Fujimoto, Proposal of spiral ultrasonic assisted grinding method and its

fundamental performance in the grinding of single crystal silicon, Ultrasonic Techno, Vol.224, No.6, 2012, pp.43-47. (in Japanese)

244. Y. Wu and M. Fujimoto, Ultrasonic assisted internal mirror grinding of difficult-to-cut materials, Ultrasonic Techno, Vol.23, No.6, 2011, pp.58-62.

245. Y. Wu, T. Sato and K. Shimada, Behaviors of MCF (magnetic compound fluid) slurry and its fundamental performance in mirror surface finishing of 3D structure under the application of dynamic magnetic field, Journal of JSEM (Japan Society for Experimental Mechanics), Vol.11, No.3 (2011), p.273-276. (in Japanese)

246. Z. Liang, X. Wang, Y. Wu, Y. Li, W. Zhao and S. Pang, Status and progress of ultrasonic assisted grinding technology, Acta Armamentarii, Vol. 31, No.11 (2010), p.1465-1470. (in Chinese)

247. Y. Wu, M. Nomura and T. Tachibana, Precision internal grinding with assistance of ultrasonic vibration, Journal of JSAT (Japan Society for Abrasive Technology), Vol.**53**, No.12, 2009, pp.729-732. (in Japanese)

248. Y. Wu, T. Sato, W. Lin and W. Yang, Edge treatment of silicon wafer by ultrasonic assisted polishing: construction of experimental apparatus and several polishing tests, Ultrasonic Techno, Vol.**21**, No.6, 2009, pp.38-42. (in Japanese)

249. Y. Wu, S. Yokoyama, T. Sato, W. Lin and M. Take, Ultrasonic assisted internal grinding of small holes: Truing/dressing of small metal-bonded diamond grinding wheel, Ultrasonic Techno, Vol.**21**, No.5, 2009, pp.69-73. (in Japanese)

250. Y. Wu, T. Sato, W. Lin and W. Yang, Edge treatment of silicon wafer by ultrasonic assisted polishing: fundamental performance in surface polishing, Ultrasonic Techno, Vol.**21**, No.5, 2009, pp.64-68. (in Japanese)

251. M. Nomura, Y. Wu, M. Kato, T. Tachibana and T. Kuriyagawa, Ultrasonically assisted internal grinding of small holes – The effects of ultrasonication on the truing/dressing of small grinding wheels -, Ultrasonic Techno, Vol.20, No.3, 2008, pp.85-88, (in Japanese)

252. Y. Wu, Developments of advanced manufacturing technologies by utilizing ultrasonic and magnetic phenomena, Journal of JSPE, Vol.73, No.5, 2007, pp.541-542. (in Japanese)

253. Y.Wu, Activities in advanced manufacturing technology laboratory of APU, Ultrasonic Techno, Vol.**18**, No.6, 2006, pp.111-114. (in Japanese)

254. M. Nomura, Y. Wu, M. Kato, T. Tachibana and T. Kuriyagawa, Ultrasonically assisted internal grinding of small holes – The mechanism of grinding force reduction due to ultrasonication -, Ultrasonic Techno, Vol.**18**, No.4, 2006, pp.83-86, (in Japanese)

255. Y. Wu, Centerless grinding using surface grinder, Ultrasonic Techno, Vol.**18**, No.2, 2006, pp.62-66. (in Japanese)

256. Y. Wu, Fabrication of micro-parts by ultrasonic shoe centerless grinding, Ultrasonic Techno, Vol.**18**, No.1, 2006, pp.34-38. (in Japanese)

257. Y.Wu, Development of ultrasonic shoe centerless grinding technique, Ultrasonic Techno, Vol.**17**, No.5, 2005, pp.57-61. (in Japanese)

258. Y. Wu, Introduction of advanced manufacturing laboratories, Journal of JSAT, Vol.48, No.4, 2004.pp.202-203. (in Japanese)

259. Y. Wu, Feasibility investigation of a new centerless grinding technique without regulating wheel – from the conception to the verification -, Journal of JSAT, Vol. **48**, No.7, 2004, pp.383-384. (in Japanese)

260. M. Nomura, Y. Wu, M. Kato and T. Tachibana, Ultrasonically assisted internal grinding of small holes – Construction of ultrasonic spindle and fundamental grinding characteristics -, Ultrasonic Techno, Vol.**15**, No.4, 2003, pp.24-27. (in Japanese)

261. Y. Wu, Measurement methods of grinding forces in centerless grinding, Journal of JSAT, Vol.44, No.11, 2000, pp.566-569. (in Japanese)

Domestic Conference Papers in Japan

More than **170** short papers have been published in proceedings of many domestic conferences held in Japan.

Keynote Speeches/ Invited Talks

1. Yongbo Wu, Ultrasonic assisted electrolytic grinding of Titanium alloy Ti-6Al-4V , the 16th International manufacturing conference in China (IMCC2015), Hangzhou, China, 2015.10.24
2. Yongbo Wu, Advanced machining technologies, Xihua University, Chengdu, China, 2015.9.12
3. Yongbo Wu, Ultrasonic assisted manufacturing technologies , Wuhan University of Technology , Wuhan, China, 2015.9.16
4. Yongbo Wu, Multi-fields assisted polishing processes , Beijing Jiaotong University, Beijing, China, 2015.9.17
5. Yongbo Wu, Ultrasonic assisted machining and MCF polishing , Beijing Institute of Technology, Beijing, China, 2015.9.18
6. Yongbo Wu, How does the ultrasonic play its role in manufacturing, Dalian University of Technology, China, 2014.9.15
7. Yongbo Wu, Recent advances in ultrasonic and magnetic field assisted machining, Tianjin University, China, 2014.9.18
8. Yongbo Wu, Advanced manufacturing technologies with the assistance of ultrasonication, Eastern China University of Technology, Nanchang, China, 2014.9.25
9. Yongbo Wu, Advances in precision machining at Akita Prefectural University, Beijing Institute of Technology, Beijing, China, 2013.9.6
10. Yongbo Wu, MCF slurry and its application in nano-precision polishing, Taishan, Shandong, China, 2013.9.21
11. Yongbo Wu, Nano-precision surface finishing using MCF slurry, ICATT2013 in Qiandaohu, Hangzhou, China, 2013.9.24
12. Y. Wu, A feasibility study of silicon wafer edge treatment by ultrasonic-assisted fixed-abrasive CMP (UF-CMP), International Conference of Manufacturing Technology Engineers, ICMTE2012), 2012.10.18-19 in Seoul, Korea.
13. Y. Wu, MCF polishing technology focused on nano-precision surface finishing, Symposium on application of MCF (magnetic compound fluid), Toyama, Japan, 2012.6.14
14. Y. Wu and M. Fujimoto, MCF (Magnetic Compound Fluid) Slurry and its Performance in Nano-precision Polishing, 2nd International Symposium on Micro/Nano Mechanical Machining and manufacturing (ISMNM2012), 2012.4.19, Matsushima, Miyagi, Japan.
15. Y. Wu, Grinding of sapphire substrate, Electronic Journals Seminar, Tokyo, Japan, 2012.1.26
16. Y. Wu, Ultrasonic assisted internal mirror grinding of difficult-to-cut materials, 87th JSPE Symposium on the performance of supper abrasive wheels, Meiji University, Tokyo, Japan, 2011.12.1.
17. Y. Wu, Precision machining technologies for aeronautic industry, Nanchang Hangkong University, Nanchang, China, 2011.9.27.
18. Y. Wu, State of the art of ultrasonic assisted precision machining technologies, Xiamen University, Xiamen, china, 2011.9.30.
19. Y. Wu, Mirror grinding of hard-brittle materials under the assistance of ultrasonic vibration, Nanchang Hangkong University, Nanchang, China, 2010.9.28.
20. Y. Wu, Nano-precision and high efficiency polishing of soft-brittle materials using MCF slurry, Jiangxi Agriculture University, Nanchang, China, 2010.9.28.
21. Y. Wu, The developments of advanced manufacturing technologies in Akita Prefectural University, Zhejiang University of Science and Technology, Hangzhou, China, 2010.9.23
22. Y. Wu, Surface formation characteristics in elliptical ultrasonic assisted grinding of monocrystal silicon, 2nd International Conference on Nanomanufacturing (NanoMan2010), 2010.9.24-27, Tianjin, China.

23. Y. Wu, Fabrication of Microscale Cylindrical Parts by Ultrasonic shoe Centerless Grinding, International Symposium on Micro/Nano Mechanical Machining and Manufacturing (ISMNM2010), 2010.8.18-20, Guilin, China.
24. Y. Wu, A new grinding process under the assistance of ultrasonic vibration: Spiral ultrasonic assisted grinding technique, 57th ELID grinding Symposium, RIKEN, Wako, Saitama, Japan, 2010.7.22
25. Y. Wu, Behaviors of MCF（Magnetic Compound Fluid) slurry under dynamic magnetic field and its fundamental performance in mirror surface finishing, 7th MCF Consortium and JSEM Symposium on smart fluids, Yurihonjo, Japan, 2010.6.17
26. Y. Wu, Developments of advanced machining technologies by the assistance of ultrasonic vibration and magnetic field, Yamagata Institute of Industrial Technology, Yamagata, Japan, 2009.12.9
27. Y. Wu, High efficiency grinding of hard-brittle materials under the presence of elliptic ultrasonic vibration, Beijing Institute of Technology, Beijing, china, 2009.9.24
28. Y. Wu, On the nano-surface finishing of optical glasses using magnetic responding slurry, Chengdu research center of precision optical engineering, Chengdu, China, 2009.9.18.
29. Y.Wu, Fundamental characteristics of the novel MCF-based polishing liquid and its application in micro 3D surface finishing, Riken-IRI-APU joint open symposium on advances in ultra-precision machining, Yurihonjo, Akita, Japan, 2009.6.4
30. Y. Wu, Development of advanced precision machining technologies by utilizing ultrasonic and magnetic field, 14th JSPE symposium on Nano-precision machining, Yurihonjo, Akita, Japan, 2008.11.26
31. Y. Wu, Development of advanced precision machining technologies by utilizing ultrasonic and magnetic field, Jiangxi agriculture University, Nanchang, Jiangxi, China, 2008.10.7
32. Y. Wu, Fundamental performance of MCF polishing tool in the non-contact finishing of mold/die and the thinning process of quartz wafer, 5th MCF consortium symposium, Tokyo, Japan, 2008.4.25
33. Y. Wu, The proposal of MCF (magnetic Compound Fluid) polishing liquid and its fundamental performance in nano-precision float polishing of metal surface, Forum of ultra-precision manufacturing technology, Tianjin University, Tianjin, China, 2007.12.22-23.
34. Y. Wu, Internal mirror grinding of small holes using ultrasonic spindle, Technical seminar in Okamoto machine tool corporation, Annaka, Gunma, Japan, 2007.12.8
35. Y. Wu, K. Shimada, Proposal of MCF polishing liquid and its fundamental performances, JSPE symposium on the frontier of Nano-precision machining, Asahikawa, Hokkaido, Japan, 2007.9.13
36. Y. Wu, Advances in precision machining technology in Akita prefectural university, 1st Akita University and Akita Prefectural University joint Symposium on precision machining and thin films, Yirihonjo, Akita, Japan, 2007.8.24
37. Y. Wu, Proposal of a new MCF-based polishing liquid and its fundamental performance, Intermold technical seminar, Tokyou, Japan, 2007.3.23
38. Y. Wu, Proposal of ultrasonic shoe centerless grinding technique and its applications, Symposium on manufacturing technology, Toyohashi University of Technology, Toyohashi, Aichi, Japan, 2007.3.15
39. Y. Wu, Ultrasonic shoe centerless grinding technology, Industrial sponsor seminar of JSAT, Yamagata, Japan, 2006.10.6
40. Y. Wu, Application of Ultrasonic vibration and MCF on Precision Machining, Zhejiang University of Technology, Hangzhou, Zhejiang, China, 2006.9.18
41. Y. Wu, Centerless Grinding Techniques with Ultrasonic Regulator, Workshop on Advances in Grinding Technology, Hunan University, Changsha, Hunan, China, 2006.6.16
42. Y. Wu, Metal surface finishing with semi-solidified MCF polishing tool, Symposium on fundamental manufacturing in Hamadori area, Minamisouma, Fukushima, Japan, 2006.2.14
43. Y. Wu, Spherical fabrication by ultrasonic shoe centerless grinding, Nanchang Institute of Aeronautical Technology, Nanchang, Jiangxi, China, 2005.11.16
44. Y. Wu, Development of ultrasonic shoe centerless grinding and its application in micro fabrication, Symposium on functional fluid and precision machining, Guangdong University of Technology, Guangzhou, China, 2005.11.14

45. Y. Wu, Development of New Centerless Grinding Techniques with Ultrasonic Regulator, Taiwan-Japan Joint Symposium on Nano-Precision Machining, Xingzhu, Taiwan, 2005.5.25
46. Y.Wu, Fundamental performance of MCF polishing tool in surface finishing, Seminar of MCF consortium, Kosai, Shizuoka, Japan, 2005.4.5
47. Y. Wu, Development of ultrasonic shoe centerless grinding and its application in micro fabrication, Symposium on functional fluid and precision machining, Toyama, Japan, 2005.3.5
48. Y. Wu, Micro centerless grinding technology, Tsinghua University, Beijing, China, 2004.9.21
49. Y. Wu, The recent advances in precision engineering in Japan, Henan University of Technology, Luyang, Henan, China, 2004.9.16
50. Y.Wu, Nano-precision mechanical machining and M4 processes, Hongdu airplane corporation, Nanchang, Jiangxi, China, 2004.9.13

Invention Patents:

1. The National Invention Patent of Japan (No.2010-119235 applied on 2010.5.25, No.2011-245574 released on 2011.12.8): "The method of two dimensional ultrasonic assisted chemo-mechanical machining ant the equipment" by Yongbo Wu.
2. The National Invention Patent of Japan (No.2010-051362 applied on 2010.3.9, No.2011-183510 released on 2011.9.22): "The method of ultrasonic assisted grinding and the equipment" by Yongbo Wu and Z. Liang.
3. The National Invention Patent of Japan (No.2009-177328 applied on 2009.7.30, No.2011-031317 released on 2011.2.17): "The method to generate cradle type umbrella gears and its equipment" by Yongbo Wu and etc..
4. The National Invention Patent of Japan (No.2009-063034 applied on 2009.3.16, No.2010-214505 released on 2010.9.30, No. **5499414 a**pproved on **2014.3.20**): "The method to increase the restoring ability of particle suspension liquid by applying fluctuating magnetic field and the polishing equipment and method" by T. Sato and Yongbo Wu.
5. The National Invention Patent of Japan (No.2007-156866 applied on 2007.5.16, No.2008-284862 released on): "Ultrasonic welding method using middle insertion sheet" by Jianhui Qiu and Yongbo Wu.
6. The National Invention Patent of Japan (No.2006-024623 applied on 2006.9.12; No.2008-68327 released on 2008.3.27): "Polishing equipment and polishing method of wafer edge" by Yongbo Wu, et al.
7. The National Invention Patent of Japan (No.2006-101222 applied on 2006.3.31; No.2007-268505 released on 2007.10.18, **No.4915987** granted on 2012.2.3): "The equipment to ultrasonically excite a rotary spindle" by Yongbo Wu, et al.
8. The National Invention Patent of Japan (No.2005-237243 applied on 2005.8.18; No.2006-095674 released on 2006.4.13, **No.4820127** granted on 2008.8.1): "The centerless grinding unit, the shoe for centerless grinding, machine tool and centerless grinding method" by Yongbo Wu, et al.
9. The National Invention Patent of Japan (No.2004-278556 applied on 2004.9.24, No.2006-88283 released on 2006.4.6): "Mirror polishing coating method and its equipment" by K. Shimada and Yongbo Wu.
10. The National Invention Patent of Japan (No. 2004-72121 applied on 2004.3.15; No.2005-254418 released on 2005.9.22, Patent **No: 4164460** granted in 2008.8.1): "The Method of Centerless Grinding the Spherical Parts and its Equipment" by Yongbo Wu, et al.
11. The National Invention Patent of Japan (No. 2004-16918 applied on 2004.1.26; No.2005-210863 released on 2005.8.4, **No.4611645** granted on 2010.10.22): "The Method of Exciting a Rotational Spindle to Ultrasonically Vibrate and its Equipment" by Yongbo Wu, et al.
12. The National Invention Patent of Japan (No. 2004-382 applied in 2004, **No.4471197** granted on 2010.3.12): "The Polishing Method without Controlling Polishing Pressure and Polishing Compound" by K. Shimada, Yongbo Wu.
13. The National Invention Patent of Japan (No: 2003-347458 applied on 2003.10.6): "The Control

Program and Adjust Method for Centerless Grinder" by Yongbo Wu, et al.

14. The National Invention Patent of Japan (Application No. 2000-83248; Release No. 2001-259974, Patent **No.3823286** granted on 2006.7.7): "The Method of Centerless Grinding the Cylindrical workpieces and its Equipment" by Yongbo Wu, et al.
15. The National Invention Patent of Japan (No. H10-257910 applied on 1998.9.11; No. 2000-92867 released on 2000.3.31): "A Vibration Actuator" by Yongbo Wu.
16. The National Invention Patent of Japan (No. H10-261961 applied on 1998.9.16; No. 2000-92868 released on 2000.3.31): "A Vibration Motor" by Yongbo Wu.

Note that the 16 patents involve a large amount of work which has not been published due to commercial confidentiality.

Awards:

1. Manufacturing and Machine Tool Research Award of JSME, presented in 1999 Annual Conference, by Yongbo Wu, et al.
2. Kumagai Award of JSPE (The Japan Society for Precision Engineering), Sept. 2002, by Yongbo Wu, et al.
3. Best Paper Award of JSAT (The Japan Society for Abrasive Technology), March 2004, by Yongbo Wu, et al.
4. 30th Machine Tools Technology Award, Japanese Machine Tools Technology Promotion Foundation, 2009, By Yongbo Wu and Weixing Xu..

Professional Services:

Academic societies and consortiums

- Japan Society of Mechanical Engineers (JSME)
  * Council member of Manufacturing and Machine Tool Division 2005.4- 2007.3/2011.4- present
  * Secretary of 3rd project committee for Manufacturing and Machine Tool Division 2005.4-2007.3
  * Member of referee committee for Journal of JSME
  * Member of screening committee for best paper award
- Japan Society for Precision Engineering (JSPE)
  * Representative 2013.4 - present
  * Secretary of JSPE Tohoku Division 2002.4 – present
  * Member of technical committee for Nano-precision mechanical machining 2004.4 - present
  * Member of technical committee for super-abrasive technology 2007.10 - present
  * Member of referee committee for Journal of JSPE 2004.4 – present
  * Member, JSPE Workshop on Technical Development of Advanced Machining Technology for 21th Century, April 2002 to March 2004.
  * Member, JSPE Workshop on Ultra-high Speed and Ultra-precision Machining, 1998/7 to 2001/3.
- Japan Society for Abrasive Technology (JSAT)
  * Executive board member of JSAT 2009.4 – 2011.3
  * International committee chief secretary of JSAT and editorial board chief secretary of JSAT Journal, 2009.4 – 2011.3.
  * Member of screening committee for best paper award, 2009.4-present
  * Member of technical committee for next generation fixed abrasive technology 2009.10 - present
  * Vice president of technical committee for advanced cBN/Diamond application technology 2012.1 - present
- Japanese Society for Experimental Dynamics (JSEM)
  * Member of technical committee for functional fluids 2007.10 - present
- Chief secretary of MCF (Magnetic Compound Fluid) consortium
- Project peer referee of NEDO, 2008.4-present
- Executive board member of precision machining committee, 2002.4-present
- Active member of ICAT (International Committee for Abrasive Technology), 2010.9-
- International excecutivel board member of Korean Society of Manufacturing Technology Engineers

(KSMTE), 2012.10 -

- Professional Services for foreigner government agencies:
  - ·Oversea reviewer for NSFC (National Science Foundation of China) (2005.4 -)
  - ·Oversea reviewer for RGC (Research Grant Council) of HongKong (2010.5-)
  - ·Specially invited expert for "555 project" of Jiangxi province, China (2011.1-2013.12)
  - ·Invited Assessor, second stage of Australia ARC centers of excellence assessment process, 2016-

Academic journal editorial board

- Editorial board member of International Journal of Abrasive Technology (IJAT) 2006.8 - present
- International editorial board member of the Journal of The Korean Society of Manufacturing Technology Engineers, 2012.10-

Academic conference/meeting organizations

- Chairman, Organizing committee of 9th JSME Conference on manufacturing and Machine Tool, Yurihonjo, Akita, Japan, 2012.10
- Chairmen, Organizing committee of ISMNM (International Symposium on Micro/Nano Mechanical Machining and manufacturing) series: 2010 (Guilin, China, 2010.8), 2012 (Matsushima, Miyagi, Japan, 2012.4), 2014 (Xi'an, China, 2014.4), 2016 (Akita, Japan, 2016.4).
- Chief secretary, Organizing committee of JSPE Tohoku conference on precision engineering 2006, Yurihonjo, Akita, Japan, 2006.12.
- Committee Member for
  (1) Organizing committee of The 9th CHINA-JAPAN International Conference on Ultra-Precision Machining Progress (CJUMP2012), RIKEN:Wako, Saitama, Japan, Nov. 4-8, 2012
  (2) Special invited expert for 2nd 'Global Chinese manufacturing professors forum (Chongqing, China, 10th June, 2012)
  (3) Program committee of Topical meeting on optical fabrication and testing (OF&T) 2012, Optical Society of America (OSM), Monterey, California, on June 25-28, 2012
  (4) International Advisory Committee of 10th Asia-Pacific Conference on Materials Processing (Jinan, China, 14-17 June 2012)
  (5) Program Committee of 8th CJUPM (The 8th CHINA-JAPAN International Conference on Ultra-Precision Machining, Hangzhou, 20-22 Nov., 2011)
  (6) International Advisory Committee of 9th Asia-Pacific Conference on Materials Processing (APCMP2010)(2010.6, Sydney, Australia)
  (7) Advisory committee of The 2nd International Conference on Ultraprecision and ELID-grinding , (Nov. 17-18, 2009, Aachen, Germany)
  (8) Organizing committee of JSPE general conference in 2006 autumn (Sendai, japan, 2008.9)
  (9) Advisory Committee of 1st International ELID-grinding Conference (Changsha, China, 2008.6)
  (10) Scientific committee of ICSFT2006 (Dalian, China, 2006.9)
  (11) Organizing Committee of ISAAT2006 (Dalia, China, 2006.9)
  (12) Organizing committees for ABTEC2005 (Matsushima, Japan, 2005)
  (13) Technical and Organizing Committee of 7th ICPMT (The 7TH International Conference on Progress of Machining Technology, 2004.9.8-11, Suzhou, China)
  (14) International Program Committee of ISAAT2004 (Turkey, 2004.6)
  (15) International Program Committee of ISAAT2003 (Bristol, UK, Nov. 17-21, 2003).
- Session chair/organizer for

  **Domestic conferences/symposiums*

  JSME Conference on Manufacturing and Machine Tool Series, 2000 - present.
  ABTEC (Abrasive Technology Conference) Series, 2002 - present
  JSPE Spring and Autumn Conference Series, 2000 - present

  **International conferences/symposiums*

  LEM21 (Int. Conf. on Leading Edge Manuf. in 21th Century): Niigata/Japan, 2003.11; Tokyo/Japan, 2011.11; Matushima/Japan, 2013.11; Kyoto/Japan, 2015.10
  ISAATs: Burser/Turkey, 2004.6; Dalian/China, 2006.9; Taipei/Taiwan, 2007; Awaji/Japan, 2008; Taiwan, 2010.9; Singapore, 2012.9, Qaindaohu/China, 2013.9; Hawaii/USA, 2014.9; Jeju/Korea,

2015
IMCCs: Jinan/China, 2004.9; Dalian/China, 2009.9; Tianjin/China, 2009,9; Hangzhou/China, 2015.10
AMPTs: Daijoen/Korea, 2007,10; Bahrain, 2008.10;
CJUMPs: Henan/China, 2014.11; Tokyo/Japan, 2015.11
ICSFT2006: Dalian/China, 2006.9;
ISEM2005: Bad Gastein/Austria, 2005.9
ISMNMs: Guilin/China, 2010.8; Matsushima/Japan, 2012.4; Xian/China, 2014.4

etc.

Periodic Journal peer referee

* Japanese Journals:
  (1) J. JSPE (The Japan Society for Precision Engineering)
  (2) J. JSAT (Japan Society for Abrasive Technology)
  (3) J. JSME (Japan Society of Mechanical Engineers)
  (4) J. JSEM (Japan Society for Experimental Dynamics)

* International Journals:
  (1) Ain Shama Eng. J.
  (2) Advances in Mechanical Engineering
  (3) Chemical Eng. J.
  (4) Defence Technology
  (5) Harald J. Market. Business Magne.
  (6) Int. J. Abrasive Technology
  (7) Int. J. Computer Application in Tech.
  (8) Int. J. Eng. Sci. Tech.
  (9) Int. J. Machining and Machinability of Materials
  (10) Int. J. Machine Tools and Manufacture
  (11) Int. J. Manuf. Tech. and Manag.
  (12) Int. J. Manuf. Eng.
  (13) Int. J. Mechatronics
  (14) Int. J. Nano-manufacturing
  (15) Int. J. Physics Science
  (16) Int. J. Rotating machinery
  (17) Int. J. Surf. Sci. Eng.
  (18) J. Eng. Manuf.
  (19) J. Materials Proc. Tech.
  (20) J. Mech. Eng. Sci.
  (21) J. Mech. Eng.
  (22) J. Vaccum Sci. Tech. B
  (23) J. X-ray sci. & Tech.
  (24) J. Manuf. Proceses
  (25) JSME International Journal
  (26) Machining Science and Technology
  (27) Measurement
  (28) Manuf. Letters
  (29) Precision Engineering
  (30) Powder Technology
  (31) Science in China
  (32) Ultrasonics

etc.

Research Grants (Recent 5 years, PI only):

1. Intelligent machine design and processing, around 3,600,000 every year since 2000, APU faculty research fund.

*APU: Akita Prefectural University

2. Other competitive research grants

1. High-efficiency and echo treatment of Si wafer edge by ultrasonic assisted chemo-mechanical grinding, 1,700,000JPY, Academic-Industrial cooperation Foundation of APU, 2010/4-2011/3
2. Development of elliptical ultrasonic assisted fixed-abrasive CMP for high efficiency and echo treatment of Si wafer edge, 1,995,000JPY, R&D promotion foundation of Akita Prefecture, 2010/6-2011/3.
3. Development of MCF (magnetic compound fluid) polishing technology for high-precision, high-efficiency and damage-free surface finishing of functional hard-brittle materials, 800,000JPY, Technical seeds creation foundation of APU, 2010/4-2-11/3
4. Attending the international conference of AMPT2010 in Paris, 200,000JPY, Osawa Science and Technology Promotion Foundation, 2010/4-2011/3
5. Attending the international conference of AMPT2010 in Paris, 219,000JPY, Mitsutoyo international friendship foundation, Sept. 2010.
6. Precision internal grinding of heat-resistant alloy mold/die of glass lens, 200,000JPY, Donation for research from Kimura Industrial Co., Ltd, 2010/6-2011/3.
7. Theoretical analysis of optimized processing conditions for internal grinding, 600,000JPY, Commissioned research of Micron Machinery Co., Ltd., 2010/4-2011/3
8. Process investigation on ball centerless grinding, 500,000JPY, Commissioned research of Micron Machinery Co., Ltd., 2010/5-2011/2
9. Theoretical investigation of through-feed ball centerless grinding, 500,000JPY, Commissioned research of Micron Machinery Co., Ltd., 2011/4-2012/3
10. Elliptical ultrasonic assisted fixed-abrasive CMP for high efficiency and echo treatment of Si wafer edge, 1,983,000JPY, Academic-Industrial cooperation Foundation of APU, 2011/4-2012/3
11. Ultra precision internal grinding of glass lens mold/die, 1,595,000JPY, Donation for research from Kimura Industrial Co., Ltd, 2011/4-2012/3
12. Trial manufacture of a machine for environment-friendly treatment of large-scale Si wafer edge, 9,984,000JPY, Academic-Industrial cooperation Foundation of Yurihonjo-city, 2011/4-2013/3.
13. Attending the international conference of euspen2012 in Stockholm, 250,000JPY, Mitsutoyo international friendship foundation, Sept. 2012
14. High-efficiency and echo treatment of Si wafer edge by ultrasonic assisted chemo-mechanical grinding, 3,000,000JPY, Academic-Industrial cooperation Foundation of APU, 2012/4-2013/3
15. Development of spiral ultrasonic assisted grinding equipment for high-efficiency and high-quality machining of advanced opt-electric materials, 1,900,000JPY, Presidential project promotion foundation of APU, 2012/4-2013/3
16. Attending the international conference of euspen2012 in Stockholm, 350,000, Machine tool technology promotion foundation of Japan, 2012/9
17. Attending the international conference of 2012 Optics+Photonics in San Diego, California, USA, 200,000JPY, Marufumi international friendship foundation, 2012/11
18. Attending 6th International Symposium on Advanced Optical Manufacturing and Testing Technologies (AOMATT 2012), April 26-29, 2012, Xiamen, China, 50,000JPY, TBOC international exchange foundation, 2012/6
19. Spiral ultrasonic assisted grinding of sapphire substrate, Scientific Research Foundation of Japan(C), 5,200,000JPY, 2013/4-2016/3
20. Enhancing the performance of internal grinding technique for SiC ceramic sleeve used for molding miniature glass lens, 1,000,000JPY, Research seeds application foundation of APU, 2013/4-2014/3
21. Practical application development of edge treatment for next-generation large scale Si wafer, 1,530,000JPY, Research seeds practical application promotion foundation of APU, 2013/4-2014/3
22. Development of ultrasonic assisted plasma discharge grinding technology for high-efficiency and high precision machining of difficult-to-machine materials, Supporting Industry Program of Japan, 7,500,000JPY, 2013/8-2016/3
23. High precision polishing of mold/die for mass production of high-performance solar collection plastic

lenses, 2,000,000JPY, JFE foundation of Japan, 2014/1-2015/12

24. Development of large scale Si wafer edge treatment technique, 500,000JPY, Commissioned research of Nishime Kikou Co., Ltd., 2013/4-2014/3
25. Attending euspen2014 in Croatia Dubrovni, Machine Tools technology Promotion foundation of Japan, 350,000JPY, 2014/7
26. Ultra-precision surface finishing of functional hard-brittle materials using MCF (Magnetic Compound Fluid) slurry, 1,000,000JPY, Academic-Industrial cooperation Foundation of APU, 2014/4-2015/3
27. Development of high-efficiency turning technology of aeronautic difficult-to-machine materials, 683,000JPY, SMEs innovation business promotion program of Japan, 2014/8-2015/3
28. Improving machining accuracy and productivity of grinding of difficult-to-machine materials by the assistance of ultrasonic vibration, 1,000,000JPY, manufacturer establishment promotion program of Akita Prefecture, 2014/4-2015/3
29. High-efficiency and high-precision hole creation of CFRP by tilt helical milling, 1,000,000JPY, Mikiya Science and Technology Foundation of Japan, 2015/4-2016/3
30. Proposal and fundamental performance of tilt helical milling method for high-efficiency and high-precision hole creation of CFRP, 50,000JPY, Mazaku foundation of Japan, 2015/4-2016/3
31. Attending ISAAT2015 in Jeju island, South Korea, 71,000JPY, HonjoYuri Science and Technology promotion foundation, 2015/9
32. Edge treatment of large scale Si wafer, 200,000JPY, Academic-Industrial cooperation Foundation of APU, 2015/4-2016/3
33. Ultra-precision polishing of smart hard-brittle materials using MCF (magnetic compound fluid) slurry, 1,000,000JPY, Academic-Industrial cooperation Foundation of APU, 2015/4-2016/3
34. High precision polishing of mold/die for mass production of high-performance solar collection plastic lenses, 1,800,000JPY, Amada foundation of Japan, 2015/12-2018/12