Biographic Sketch of Prof. Yen-Chieh Huang

Current Position:

- Professor, Department of Electrical Engineering/Institute of Photonics Technologies, NTHU, Taiwan
- Director, Institute of Photonics Technologies, National Tsing Hua University (NTHU), Taiwan （清華大學光電工程研究所所長）
- Director, Center for Photonics Research, NTHU, Taiwan （清華大學光電研究中心主任）
- Adjunct professor, Physics Department, NTHU, Taiwan （物理系合聘教授）
- (March 1st, 2015~Feb. 28, 2019) Honorary Visiting Professor in the School of Environmental Sciences, University of Liverpool, UK.

Education

Jan.1995, PhD, Electrical Engineering Department, Stanford University, USA
Jan. 1991, MS, Electrical Engineering Department, Stanford University, USA
Jan. 1987, BS, Electrical Engineering Department, National Sun Yat-Sen University, Taiwan

Experience:

- July 9, 2014, Feb. 9, 2015, visiting professor, Royal Institute of Technology (KTH), Stockholm, Sweden
- Jun. 5-25, 2014, visiting scientist, SLAC National Accelerator Laboratory, Stanford University
- Feb. 9~Aug. 15, 2009, visiting professor, Applied Physics Department, Stanford University
- Feb. 2007 ~ Jul. 2012, jointly appointed research fellow, National Synchrotron Radiation Research Center.
- Aug. 2001~Jul. 2005, Associated Professor, NTHU, Taiwan
- 2000, Founder, HC Photonics Inc. www.hcphotonics.com.tw
- Feb. 1997~ Jul. 2001, Assistant Professor, NTHU, Taiwan
- Jan. 1995~1997, Postdoctoral Research Affiliate, Applied Physics Department (Edward Ginzton Laboratory), Stanford University

Research Interests

Laser, Quasi-phase-matching nonlinear optics, optical THz radiation, free-electron laser, laser-driven particle acceleration

High-impact Publications

1. Yu-Chung Chiu, Yen-Chieh Huang, Chia-Hsiang Chen, “Parametric laser pulse shortening,” Optics Letts. **39**, 4792-4795 (2014). (selected to *Research Highlights*, **Nature Photonics/1013 IF = 29.958**, Vol. 8, October, 2014, p. 746**)**
2. R. Joel England, Robert J. Noble, Karl Bane, David Dowell, Cho-Kuen Ng, James E. Spencer, Sami Tantawi, Ziran Wu, Robert L. Byer, Edgar Peralta, Ken Soong, Chia-Ming Chang, Behnam Montazeri, Stephen J. Wolf, Benjamin Cowan, Jay Dawson, Wei Gai, Peter Hommelhoff, Yen-Chieh Huang, Chunguang Jing, Christopher McGuinness, Robert B. Palmer, James Rosenzweig, Gil Travish, Amit Mizrahi, Levi Schachter, Christopher Sears, Gregory R. Werner, Rodney B. Yoder, “Dielectric Laser Accelerator,” **Review of Modern Physics** (RMP) **86**, OCTOBER–DECEMBER 2014, pp. 1337-1389. (5-year impact factor 52.577, 2013 IF = 42.86).

Honor & Award

1. Member, *Phi Tau Phi* Honorary Society
2. 2001 Outstanding Young Electrical Engineer Award, Chinese Institute of Electrical Engineering. （電機工程學會優秀青年電機工程師獎）
4. 2003 Traveling Lecturer Award to Egypt by International Commission for Optics (ICO)
5. 2004 Outstanding Young Optical Engineer Award from the Optical Engineering Society of the Republic of China （光學工程學會青年光學工程獎章）
6. 2005, NTHU Outstanding Teaching Award 國立清華大學傑出教學獎
7. 2007, NTHU Outstanding Industry-Academics Collaboration Award 國立清華大學傑出產學合作獎

Professional Affiliations

- Senior Member, OSA, 2015
- 2013- 2015, Member, Editorial board, High Power Laser Science and Engineering, Cambridge Press
- 2015~ now, Advisory Committee Member, Free-electron laser for Collaborative Innovation Center of Chemistry Energy Materials (FELiChEM), China (厦門大學、復旦大學、中國科技大學、大連化物所)。
- 2014~ now, member, 中国科学院创新团队計畫國外專家(上海應用物理所)
- Founding member and co-chair, Asia Advanced Accelerator Community.
- Convener, Innovative Accelerator Techniques, Asia Forum for Accelerators and Detectors (AFAD).

Chairs, Committee Members in International Conferences (past 5 years)

1. Advisory committee member, the 5th Overseas Chinese Physics Association Topical Accelerator School & Workshop, Shanghai Jiatong University, China, Aug., 2017.
2. Program committee member, OPIC/ALPS-2016, Yokohama, Japan, May 17-20, 2016.
3. Scientific Advisory Board Member, International Particle Accelerator Conference, Busan, Korea, May 8-13, 2016.
4. General Chair, Optics and Photonics Taiwan, International Conference, Hsinchu, Taiwan, Dec. 4-6, 2015.
5. Local Chair, the 4th Overseas Chinese Physics Association Topical Accelerator School & Workshop, Hsinchu, Taiwan, Aug., 2015.
6. Member, Scientific Advisory Committee, 2015 International Particle Accelerator Conference, Richmond VA, USA, May 3-8, 2015.
7. Convener since 2012 - now, R&D for innovative accelerators, Asia Forum for Accelerators

and Detectors (AFAD).

8. International Advisory Committee member, 2014 International Symposium on Physics and Applications of Laser Dynamics, NCTU, Sep. 3-5, 2014.
9. Co-Chair Russia-Taiwan Joint Symposium on Nonlinear Optics and Nonlinear Photonics, Vladimir/Suzdal, Russia, June 14-17, 2013.
10. Session Chair, The 37th International Conference on Infrared, Millimeter and Terahertz Waves, Wollongong, Australia, Sep. 23-28, 2012.
11. Co-Chair, International Workshop on Advances in Photonics and Optical Materials, Chennai, India, Feb. 9-11th, 2012.

Invited Lectures/Talks in Conference/Workshop (past 5 years)

1. Yen-Chieh Huang, "Optical and THz particle accelerator,", 5th OCPA Topical Accelerator School & Workshop, Shanghai Jiatung University, Shanghai, China, July 23-29, 2017.
2. Yen-Chieh Huang, "THz-optical structured particle accelerator," 4th OCPA Topical Accelerator School & Workshop – Advanced Accelerator Concepts, Hsinchu, Taiwan, Aug. 4, 2015.
3. Yen-Chieh Huang, "Lithium Niobate – the Silicon of Laser Photonics," Optics and Photonics in Sweden (OPS), invited talk, Gothenburg, Sweden, Nov. 11-12, 2014.
4. Yen-Chieh Huang, "Future light source driven by dielectric laser accelerator," International Conference on High Energy Density Science in 2014 Optics and Photonics Congress, invited talk, Yokohama, Japan, April 22-25, 2014.
5. Yen-Chieh Huang, "chirped pulse superradiant free-electron laser," 1st International Symposium on High-power Laser Science and Engineering, invited talk, Suzhou, China, March 16 to 19, 2014.
6. Yen-Chieh Huang, "Chirped Pulse Generation and Compression from Coherent Undulator Radiation", 2014 PSROC, invited talk, National Chung Hsing University, Taichung, Taiwan, Jan. 21-23, 2014.
7. Yen-Chieh Huang, "Monolithic PPLN Bragg modulator and wavelength converter," JSAP-OSA Joint Symposium, invited talk, Kyoto, Japan, Sep. 16-19, 2013.
8. Yen-Chieh Huang, "Ultra-compact FEL," The 3rd Overseas Chinese Physics Association Topical Accelerator School & Workshop —— FEL and its Applications, invited lecture, Dalian, China, Aug. 5-10, 2013.
9. Chia-Hsiang Chen, Tzu-Hsiang Chen, Kuan-Yan Huang, Ming-Hsiung Wu, and Yen-Chieh Huang, "Laser excited Radiation from a Thin Wire," 2012 IR-MMW-THz Conference, invited talk, Wollongong, Australia, Sep. 23-28, 2012.
10. Yen-Chieh Huang, "THz Generation from Nonlinear Optical Semi-Waveguide", TERA2012, invited talk, Moscow State University, Moscow, Russia, June 20-22, 2012.

11. Yen-Chieh Huang, “THz Generation from Nonlinear Optical Semi-Waveguide”, Laser Optics 2012, invited talk, St. Petersburg, Russia, June 25-29, 2012.
12. Yen-Chieh Huang, Chia-Hsian Chen, Fu-Han Chao, Kuan-Yan Huang, “Miniaturizing XFEL,” Annual Meeting of the Physical Society of the Republic of China (PSROC), invited talk, Chiayi, Taiwan, Jan. 17-19, 2012.

Recent Publications

(A) Journal Papers (after 2011~)

1. Yu-Chung Chiu, Tsong-Dong Wang, Po-Chang Wang, and Yen-Chieh Huang*, “Off-axis Terahertz parametric oscillator,” Submitted to Nature Photonics, April, 2017.
2. Ming-Hsiung Wu, Yu-Chung Chiu, Tsong-Dong Wang, Gang Zhao, Andrius Zukauskas, Fredrik Laurell, and Yen-Chieh Huang, “Terahertz parametric generation and amplification from potassium titanyl phosphate in comparison with lithium niobate and lithium tantalate,” OPTICS EXPRESS **24,** No. 23, (2016) 25964.
3. Kuan-Yan Huang, Cheng-Kuo Su, Meng-Wei Lin, Yu-Chung Chiu, and Yen-Chieh Huang, “Efficient 750-nm LED-pumped Nd:YAG laser,” Optics Express **24**, 12043 (2016). DOI: 10.1364/OE.24.012043
4. F.H. Chao, C.H. Chen, Y.C. Huang, P.J. Chou, “Short-bunch Generation from an RF Photoinjector with Injection Phase Compensation,” Physical Review ST AB **18**, 051301 (2015).
5. Yen-Chieh Huang (黃衍介)[1,2], Zhen Zhang (张振)[3], Chia-Hsiang Chen (陳家祥)[4], Ming-Hsiung Wu (吳明雄), “Isolated Few-cycle Radiation from Chirped-pulse Compression of Superradiant Free-electron Laser,” Physical Review ST AB 18, 080701 (2015).
6. Yu-Chung Chiu, Yen-Chieh Huang, Chia-Hsiang Chen, “Parametric laser pulse shortening,” Opt. Letts. **39**, 4792-4795 (2014). (Research Highlights, Nature Photonics, Vol. 8, October, 2014, p. 746)
7. R. Joel England, Robert J. Noble, Karl Bane, David Dowell, Cho-Kuen Ng, James E. Spencer, Sami Tantawi, Ziran Wu, Robert L. Byer, Edgar Peralta, Ken Soong, Chia-Ming Chang, Behnam Montazeri, Stephen J. Wolf, Benjamin Cowan, Jay Dawson, Wei Gai, Peter Hommelhoff, Yen-Chieh Huang, Chunguang Jing, Christopher McGuinness, Robert B. Palmer, James Rosenzweig, Gil Travish, Amit Mizrahi, Levi Schachter, Christopher Sears, Gregory R. Werner, Rodney B. Yoder, “Dielectric Laser Accelerator,” Review of Modern Physics 86, OCTOBER–DECEMBER 2014, pp. 1337-1389.
8. Tsong-Dong Wang, Yen-Chieh Huang, Ming-Yun Chuang, Yen-Hou Lin, Ching-Han Lee,1 Yen-Yin Lin, Fan-Yi Lin, and Galiya Kh. Kitaeva, “Long-range parametric amplification of THz wave with absorption loss exceeding parametric gain,” Optics Express **21** (2013) 2452-2462.
9. Galiya Kh Kitaeva, S P Kovalev, I I Naumova, A N Tuchak, P V Yakunin, Y-C Huang, E D Mishina and A S Sigov, “Terahertz wave generation in PPLN crystals fabricated using two alternative techniques,” Laser Phys. Lett. **10** 055404 (2013).
10. Chia-Hsiang Chen, Kuan-Yan Huang, Ming-Hsiung Wu, Tzu-Hsiang Chen, and Yen-Chieh Huang, “Laser-excited terahertz-wave radiation from a thin wire,” Applied Physics Letters **102**, 211102 (2013).

11. Qiang Hao and Yen-Chieh Huang, “Two-octave polarized supercontinuum generated from a *Q*-switched laser pumped doubly resonant parametric oscillator,” Optics Letters **38**, 1863-5 (2013).
12. Gholamreza Shayeganrad, Yen-Chieh Huang, and Leila Mashhadi, “Tunable single and multiwavelength continuous-wave c-cut Nd:YVO4 laser,” Appl Phys B **108**, (2012) 67–72.
13. C.-H. Chen, K.-Y. Huang, M.-H. Wu & Y.-C. Huang, “Photo-plasma-switched radiation antenna,” Journal of Electromagnetic Waves and Applications, Vol. 26, Nos. 17–18, 2452–2458 (2012).
14. Yen-Chieh Huang, Chia-Hsian Chen, An-Ping Lee, Wai-Keung Lau, and Sheng-Guang Liu, “Laser-beat-wave Photoinjector,” Nuclear Instruments and Methods in Physics Research A 637 (2011) S1–S6.
15. Shengguang Liu, Yen-Chieh Huang, “Generation of pre-bunched electron beams in photocathode RF gun for THz-FEL superradiation,” Nuclear Instruments and Methods in Physics Research A 637 (2011) S172–S176.
16. W. K. Chang, Y. H. Chen, H. H. Chang, J. W. Chang, C. Y. Chen, Y. Y. Lin, Y. C. Huang, and S. T. Lin, “Two-dimensional PPLN for simultaneous laser Q-switching and optical parametric oscillation in a Nd:YVO4 laser,” OPTICS EXPRESS Vol. 19, No. 24, 23643 (2011).
17. Geetanjali Sharma, G. Mishra, Y.C. Huang, “Wake field accelerator in a dielectric-plasma liner structure,” Nuclear Instruments and Methods in Physics Research A 648 (2011) 22–27.
18. Yen-Chieh Huang, Tsong-Dong Wang, Yen-Hou Lin, Ching-Han Lee, Ming-Yun Chuang, Yen-Yin Lin, and Fan-Yi Lin, “Forward and backward THz-wave difference frequency generations from a rectangular nonlinear waveguide,” OPTICS EXPRESS 19, 24577 (2011).
19. A.M. Ali; Y. C. Huang, “Observation of ultra-long lifetime UV-induced infrared absorption in undoped and magnesium-doped congruent lithium niobate crystals,” Applied Surface Science **257** (2011) 5957–5960.

(B) International Conference Papers

1. Chia-Ying Wu, Yen-Yin Lin, Yu-Chung Chiu, and Yen-Chieh Huang, “High power UV laser with THz frequency modulation,” CLEO-2012 (JW4A.59), San Jose, Ca., USA, May 6-11, 2012.
2. Y. C. Huang,* T. D. Wang, Y. H. Lin, C. H. Lee, M. Y. Chuang, Y. Y. Lin, and F. Y. Lin, “Forward and backward THz-wave difference frequency generations from a rectangular nonlinear waveguide,” CLEO-2012 (JW2A.56), San Jose, Ca., USA, May 6-11, 2012.
3. Chia-Hsiang Chen, Tzu-Hsiang Chen, Kuan-Yan Huang, Ming-Hsiung Wu, and Yen-Chieh Huang, “Laser excited Radiation from a Thin Wire,” IR-MMW 2012, invited talk, Wollongong, Australia, Sep. 23-28, 2012.
4. Yen-Chieh Huang, “THz Generation from Nonlinear Optical Semi-Waveguide”, TERA2012, June 20-22,2012, invited talk, Moscow State University, Moscow, Russia.
5. Yen-Chieh Huang, “THz Generation from Nonlinear Optical Semi-Waveguide”, Laser Optics 2012, invited talk, St. Petersburg, Russia, June 25-29, 2012.
6. Chia-Hsiang Chen, Kuan-Yan Huang, Ming-Hsiung Wu, and Yen-Chieh Huang, “Voltage-biased laser-excited high-power antenna in atmosphere,” Laser Optics 2012, oral presentation, St. Petersburg, Russia, June 25-29, 2012.
7. Yen-Chieh Huang and Tsong-Dong Wang, “Microchip laser enabled efficient THz generation

from lithium niobate," The 1st Laser Ignition Conference/Optics and Photonics International Congress, Yokohama, Japan, April 23-26, 2013.

8. Fu-Han Chao, Chia-Hsian Chen, Kuan-Yan Huang, Yen-Chieh Huang, Ping-Jung Chou, "THz electron-pulse-train dynamics in a MeV photo-injector," The 4th International Particle Accelerator Conference (THOBB103, oral presentation), Shanghai, China, May 12-17, 2013.
9. Kuan-Yan Huang, Chia-Hsiang Chen, Yi-Chu Wang, Ming-Hsiung Wu, and Yen-Chieh Huang, "Ultrafast Laser-excited Relativistic Plasmonic Radiation," CLEO (QTu2B.1, oral presentation), San Jose, Ca, USA, June 9-14, 2013.
10. Shou-Tai Lin, Guey-Wu Chang, and Yen-Chieh Huang, "Monolithic PPLN Bragg Q-switch and Wavelength Converter," 2013 JSAP-OSA Joint Symposium (invited talk), Doshisha University, Kyoto, Japan, Sep. 16-20, 2013.
11. Yen-Chieh Huang, "Room-temperature Burst-mode GHz and THz Pulse Rate Photoinjector for Future Light Sources," AFAD 2014 and ACAS Workshop on Future Light Sources (oral presentation, 2E-33), Jan. 14-16, 2014. (session chair)
12. 14. G.Kh. Kitaeva, A.D. Mishin, O.V.Samotokhin, A.N.Tuchak, P.V.Yakunin, Y.-C. Huang, Y.-H. Chen, N.A. Ilyin, A.S. Sigov. Generation of Spectrally Shaped Terahertz Waves under Femtosecondor and Nanosecond-Pulsed Optical Pumping. 38th International Conference on Infrared, Millimeter and Terahertz Waves (IRMMW-THz), 2013.
13. Yen-Chieh Huang, "chirped pulse superradiant free-electron laser," 1st International Symposium on High-power Laser Science and Engineering, invited talk, Suzhou, China, March 16 to 19, 2014.
14. Yen-Chieh Huang, "Future Light Source driven by Dielectric Laser Acceleration," invited talk, High-energy Density Physics Sciences, 2014 Optics and Photonics Congress, Yokohama, Japan, April 22-25, 2014.
15. Nuan-Ya Huang, Ching-Shiang Hwang, Wai Keung Lau, X.M. Yang, Chia-Hsiang Chen, Yen-Chieh Huang, Alex Chao, Juhao Wu , "Study of a VUV/THz Free Electron Laser Facility at NSRRC in Taiwan," IPAC 2014, Dresoen, Germany, June 15-20, 2014.
16. Fu-Han Chao, Chia-Hsiang Chen, Kuan-Yan Huang, Yi-Chu Wang, Ming-Hsiung Wu, Yen-Chieh Huang, Ping J. Chou, "Room-temperature burst-mode GHz and THz pulse-train photoinjector," (poster presentation) IPAC 2014, Dresoen, Germany, June 15-20, 2014. (top 10 student paper) (MOST 102-2112-M-007-002-MY3)
17. Yen-Chieh Huang and Chia-Hsiang Chen, "Chirped-pulse Superradiant Free-electron Laser," (poster presentation, TUP074) FEL2014, Basel, Switzerland, Aug. 25-29, 2014. (MOST 102-2112-M-007-002-MY3)
18. C. H. Chen, Y. C. Chiu, K. Y. Huang, Y. C. Huang, F. H. Chao, Y. K. Gan, Y. C. Wang, "Broadly tunable THz FEL amplifier," (poster presentation, MOP86) FEL2014, Basel, Switzerland, Aug. 25-29, 2014. (MOST 102-2112-M-007-002-MY3)
19. Fu-Han Chao, Chia-Hsiang Chen, Yen-Chieh Huang, Ping J. Chou, "Generation and radiation

of PHz ring-like electron pulse train," (poster presentation) IPAC2015, Richmond, VA, USA, May 3-8, 2015. (top 10 student paper) (MOST 102-2112-M-007-002-MY3)

20. G. Zhao, S. Huang, W. Qin, L.Zeng, K. Liu, C. H. Chen, Y. C. Chiu, and Y. C. Huang, "Tunable High-power Terahertz Free electron Laser Amplifier," (oral presentation) 2015 International Free-electron Laser Conference, Daejeon, Korea, Aug. 24-28, 2015 (MOST 102-2112-M-007-002-MY3)
21. Yu-Chung Chiu, Yen-Chieh Huang, Tsong-Dong Wang, Po-Chen Wang, "Generation of High-power THz Frequency Comb from Off-axis THz Parametric Oscillator at Room Temperature,"(Th2A.5) OSA Nonlinear Optics Meeting, Kauai, Hawaii, USA, July 26 – 31, 2015. (MOST 103-2221-E-007 -062 -MY2)
22. Yu-Chung Chiu, Po-Chang Wang, Ming-Hsiung Wu, and Yen-Chieh Huang, "Single- and two-color laser generation from etalon outcoupled Nd:YVO4 laser," (poster presentation) ASSL2015, Berlin, Germany, Oct. 4-9, 2015.
23. Kuan-Yan Huang, Yu-Chung Chiu, Cheng-Kuo Su, Meng-Wei Lin and Yen-Chieh Huang, "750-nm LED-pumped Nd:YAG laser," (poster presentation, AM5A32) ASSL 2015, Berlin, Germany, Oct.. 04-09, 2015. (MOST 103-2221-E-007 -062 -MY2.)
24. Kuan-Yan Huang, Cheng-Kuo Su, Meng-Wei Lin, Yu-Chung Chiu, and Yen-Chieh Huang, "750-nm LED-pumped Nd:YAG laser with 9% optical efficiency," ALPS-2016 (oral presentation ALPS8-5), Yokohama, Japan, May. 17-20, 2016.
25. Yu-Chung Chiu,Tsong-Dong Wang, Po-Chen Wang, Yen-Chieh Huang, "THz Frequency Combs generated from Off-axis THz Parametric Oscillator at Room Temperatur," ALPS-2016 (oral presentation ALPS16-3), Yokohama, Japan, May. 17-20, 2016. (MOST 103-2221-E-007-062-MY2)
26. Ming-Hsiung Wu, Yu-Chung Chiu, Tsong-Dong Wang, Gang Zhao, Andrius Zukauskas, Yen-Chieh Huang, and Fredrik Laurell, "Terahertz parametric amplification using KTiOPO4," ALPS-2016 (oral presentation ALPS15-3), Yokohama, Japan, May. 17-20, 2016. (MOST 103-2221-E-007-062-MY2)
27. Kuan-Yan Huang, Cheng-Kuo Su, Meng-Wei Lin, Yu-Chung Chiu, and Yen-Chieh Huang, "750-nm LED-pumped Nd:YAG laser with 9% optical efficiency," CLEO-2016 (oral presentation SM4M.4), San Jose, USA, Jun. 5-10, 2016. (MOST 103-2221-E-007-062-MY2)
28. Ming-Hsiung Wu, Yu-Chung Chiu, Tsong-Dong Wang, Gang Zhao, Andrius Zukauskas, Yen-Chieh Huang, and Fredrik Laurell, "Terahertz parametric amplification using $KTiOPO_4$," CLEO-2016 (poster presentation JTh2A.60), San Jose, USA, Jun. 5-10, 2016.
29. Ming-Hsiung Wu, Yu-Chung Chiu, Tsong-Dong Wang, Gang Zhao, Andrius Zukauskas, Fredrik Laurell, and Yen-Chieh Huang, "Terahertz parametric generation from KTiOPO3 (KTP) in comparison with LiNbO3 and LiTaO3," 7th Europhoton Conference (oral presentation SSL3.6), Vienna, Austria, Aug. 21-26, 2016.
30. Yu-Chung Chiu, Tsong-Dong Wang, Po-Chen Wang, and Yen-Chieh Huang, "Off-axis THz

Parametric Oscillator In LiNbO3 Slab Waveguide,” IRMMW-THz 2016 (H3E.3 oral presentation), Copenhagen, Denmark, Sep. 25-30, 2016.

31. Ming-Hsiung Wu, Yu-Chung Chiu, Tsong-Dong Wang, Gang Zhao, Andrius Zukauskas, Fredrik Laurell, and Yen-Chieh Huang, “Terahertz parametric amplification using KTiOPO,” Advanced Solid-State Lasers Conference (JTh2A.19 Poster Presentation) Boston, USA, Oct. 30 – Nov. 3, 2016.
32. Kuan-Yan Huang, Cheng-Kuo Su, Meng-Wei Lin, Yu-Chung Chiu, and Yen-Chieh Huang, “9% optically efficient, 750-nm LED-pumped Nd:YAG laser,” Advanced Solid-State Laser Conference (JTh2A.6 Poster Presentation) Boston, USA, Oct. 30 – Nov. 3, 2016.