

AWARDS, PUBLICATIONS, PROCEEDINGS, PRESENTATIONS AND PATENTS FOR FY 2012-2013

Awards:

J. A. Johnson, Fellow of the American Ceramic Society (2013)

Publications Peer Reviewed Journals:

Christian G. Parigger, Alexander C. Woods, and Mohammad R. Rezaee, "Atomic Hydrogen and Molecular Carbon Emissions in Laser-Induced Breakdown Spectroscopy", *Journal of Physics: Conference Series*, Volume 397, 012022; <http://dx.doi.org/10.1088/1742-6596/397/1/012022> (5 pages), (2012).

Alexander C. Woods, Christian G. Parigger, Anna Keszler, László Nemes, and James O. Hornkohl, "Analysis of TiO Spectral Transitions in Laser-induced and Radio-frequency Thermal Plasmas", *International Review of Atomic and Molecular Physics* 3 (1), pp. 51-59 (2012).

Alexander C. Woods, Christian G. Parigger, and James O. Hornkohl, "Measurement and analysis of titanium monoxide spectra in laser-induced plasma", *Optics Letters* 37, Issue 24, pp. 5139-5141, <http://dx.doi.org/10.1364/OL.37.005139>, (2012)

Alexander C. Woods and Christian G. Parigger, "Time-resolved Temperature Inferences Utilizing the TiO $A^3\Phi \rightarrow X^3\Delta$ Band in Laser-induced Plasma", *International Review of Atomic and Molecular Physics* 3 (2), pp. 103-111 (2012).

David M. Surmick, Christian G. Parigger, Alexander C. Woods, A. B. Donaldson, Jonathan L. Height, and W. Gill, "Analysis of emission Spectra of Aluminum Monoxide in a Solid Propellant Flame", *International Review of Atomic and Molecular Physics* 3 (2), pp. 137-151 (2012).

Ying-Ling Chen, L. Shi, J. W. L. Lewis, M. Wang, "Normal and diseased personal eye modeling using age-appropriate lens parameters", *Optics Express*, Vol. 20 Issue 11, pp. 12498-12507 (2012).

Yuhong Xiong, William H. Hofmeister, John E. Smugeresky, Jean-Pierre Delplanque, Julie M. Schoenung, "Investigation of atypical molten pool dynamics in tungsten carbide-cobalt during laser deposition using in-situ thermal imaging", *Appl. Phys. Lett.*, Vol. 100, issue 3, 034101, (2012).

G. A. Wright, L. Costa, A. Terekhov, D. Jowhar, W. Hofmeister, C. Janetopoulos, "On-Chip Open Microfluidic Devices for Chemotaxis Studies", *Microscopy and Microanalysis*, Vol. 18, issue 4, pp. 816-828, August, 2012.

Christian Paßlick, Jacqueline A Johnson, Stefan Schweizer, "Crystallization studies on rare-earth co-doped fluorozirconate-based glasses", *J. Non. Cryst. Solids*, 371-372:33-36 (2013).

D. Rajput, L. Costa, K. Lansford, A. Terekhov and W. Hofmeister, "Solution-Cast High-Aspect-Ratio Polymer Structures from Direct-Write Templates", *ACS Appl. Mater. Interfaces*, 5 (1), pp 1–5, (2013).

R. L. Leonard, S. K. Gray, S. D. Albritton, L. N. Brothers, R. M. Cross, A. N. Eastes, H. Y. Hah, H. S. James, J. E. King, S. R. Mishra, J. A. Johnson, "Rare earth doped downshifting glass ceramics for photovoltaic applications", *Journal of Non-Crystalline Solids*, Volume 366, pp. 1-5 (2013).

C. Pfau, C. PaBlick, S. K. Gray, J. A. Johnson, C. E. Johnson and S. Schweizer, "Mössbauer spectroscopy of europium-doped fluorochloro-zirconate glasses and glass ceramics: optimization of storage phosphors in computed radiography", *Journal of Physics: Condensed Matter*, Volume 25, Number 20, 205402 (2013).

Lloyd M. Davis, Jennifer L. Lubbeck, Kevin M. Dean, Amy E. Palmer, Ralph Jimenez, "Microfluidic cell sorter for use in developing red fluorescent proteins with improved photostability", *Lab on a Chip* **13**, 2320–2327; DOI: 10.1039/c3lc50191d. <http://pubs.rsc.org/en/content/articlelanding/2013/lc/c3lc50191d>, (2013).

Jason K. King, Brian K. Canfield, and Lloyd M. Davis, "Three-dimensional anti-Brownian electrokinetic trapping of a single nanoparticle in solution", *Applied Physics Letters*, Volume 103, Issue 4, 043102; DOI: 10.1063/1.4816325, http://apl.aip.org/resource/1/applab/v103/i4/p043102_s1?ver=pdfcov, (2013).

Deepak Rajput, Spencer W. Crowder, Lucas Hofmeister, Lino Costa, Hak-Joon Sung, William Hofmeister, "Cell interaction study method using novel 3D silica nanoneedle gradient arrays", *Colloids and Surfaces B: Biointerfaces*, Volume 102, pp. 111-116, February 1, 2013,

Christian G. Parigger, "Atomic and molecular emissions in laser-induced breakdown spectroscopy", *Spectrochimica Acta Part B: Atomic Spectroscopy*, Volumes 79-80, Pages 4-16, <http://dx.doi.org/10.1016/j.sab.2012.11.012>, January 1 - February 1, 2013.

Spencer W. Crowder, Yi Liang, Rutwik Rath, Andrew M. Park, Simon Maltais, Peter N. Pintauro, William Hofmeister, Chee C. Lim, Xintong Wang, Hak-Joon Sung, "Poly(ϵ -caprolactone)-carbon nanotube composite scaffolds for enhanced cardiac differentiation of human mesenchymal stem cells", *Nanomedicine*, Pages 1-14, posted online on March 27, 2013.

Craig A. Brice and William H. Hofmeister, "Determination of Bulk Residual Stresses in Electron Beam Additive-Manufactured Aluminum", *Metallurgical and Materials Transactions A*, Pages 1-7, DOI: 10.1007/s11661-013-1847-z., posted online June 29, 2013.

Publications accepted and in press:

Trevor M. Moeller, L. Montgomery Smith, Frank G. Collins, Jesse M. Labello, James P. Rogers, Heard S. Lowry, Dustin H. Crider, "Measurement of the accumulation of water ice on optical components in cryogenic vacuum environments", *Optical Engineering*, Vol. 51, 115601, No. 11, (2012).

Richard J. Thompson and Trevor M. Moeller, "Classical field isomorphisms in two-fluid plasmas", *Physics of Plasmas*, Vol. 19, 082116, August 23, 2012.

Carlos Alvarez, Yuzi Liu, Russell Leonard, Jacqueline Johnson, and Amanda Petford-Long, "Insight into Nanocrystallization in Fluorochlorozirconate Glass Ceramics", Accepted by J. American Ceramic Soc., (2013).

Christian G. Parigger, Alexander C. Woods, Michael J. Witte, Lauren D. Swafford, and David M. Surmick, "Measurements and analysis of atomic hydrogen and diatomic molecular AlO, C₂, CN, and TiO spectra following laser-induced optical breakdown", accepted, Journal of Visualized Experiments, in press (2013).

Lauren D. Swafford and Christian G. Parigger, "Measurement of hydrogen Balmer Series lines following laser-induced optical breakdown in laboratory air", accepted, International Review of Atomic and Molecular Physics, 4 (1), in press (2013).

Michael J. Witte and Christian G. Parigger, "Measurement and analysis of carbon Swan spectra following laser-induced optical breakdown in air", accepted, International Review of Atomic and Molecular Physics, 4 (1), in press (2013).

Lorenzo Pardini, Stefano Legnaioli, Giulia Lorenzetti, Vincenzo Palleschi, Rosalba Gaudiuso, Alessandro De Giacomo, Diego M. Diaz Pace, Francisco Anabitarte Garcia, Geraldo de Holanda Cavalcanti, and Christian G. Parigger, "On the determination of plasma electron number density from Stark broadened hydrogen Balmer series lines in Laser-Induced Breakdown Spectroscopy experiments", accepted, Spectrochimica Acta Part B: Atomic Spectroscopy, Available online 9 June 2013, <http://dx.doi.org/10.1016/j.sab.2013.05.030>, in press (2013).

Conference Proceedings:

C. E. Johnson, L. Costa, S. Gray, J. A. Johnson, A. J. Krejci, S. A. Hasan, I. Gonzalo-Juan and J. H. Dickerson, "Mössbauer measurements on spinel-structure iron oxide nanoparticles", Proceedings of the 36th Annual Condensed Matter and Materials Meeting, 31st Jan – 3rd Feb 2012 Wagga Wagga, NSW, Australia, <http://www.aip.org.au>, ISBN: 978-0-646-57-71-6 (2012).

Christian G. Parigger, Jacqueline A. Johnson, and Robert Splinter, "On Optical Imaging of Tissue: Aspects of Photo-Acoustic Femtosecond Spectroscopy", 34th Annual International Conference on the IEEE Engineering in Medicine and Biology (2012).

Pavel Kucheryavy, Galina Goloverda, Cheryl Stevens, Leonard Spinu, D. Lenormand, Jibao He, Vijay John, Alex Burin, Charles Johnson, Jackie Johnson and Vladimir Kolesnichenko, "Superparamagnetic Iron Oxide Nanoparticles with Variable Size and Iron Oxidation State: Synthesis and Relaxivity Studies", Proceedings of Louisiana EPSCoR RII LA-SIGMA 2012 Symposium, pages 141-144, Baton Rouge, LA, July 23, 2012.

David M. Surmick, Alexander C. Woods, Christian G. Parigger, Jonathan L. Height, A. B. Donaldson and Walt Gill, "Spectroscopy of Aluminum Monoxide in Flames", Bulletin of the American Physical Society (APS), 79th Annual Meeting of the Southeastern Section of the APS, p. 46, Tallahassee, FL, November 14 -17, 2012.

Alexander C. Woods and Christian G. Parigger, "Acquisition and Analysis of Titanium Monoxide Spectra in Plasma", Bulletin of the American Physical Society (APS), 79th Annual Meeting of the Southeastern Section of the APS, p. 45, Tallahassee, FL, November 14-17, 2012.

Christian G. Parigger, Jacqueline A. Johnson and Robert Splinter, "Physiological Sensing through Tissue with Femto-second Laser Radiation", High Capacity Optical Networks and Emerging/Enabling Technologies (HONET), Technical Digest of the 9th International Conference of High-Capacity Optical Networks & Emerging/Enabling Technologies, Istanbul, Turkey, December 12-14, 2012.

Christian G. Parigger, "Atomic and Molecular Spectroscopy in Laser-Induced Plasma", Proceedings of the 100th Indian Science Congress (ISC) Association, Kolkata Section of Physical Sciences, p. 59, Kolkata, India, January 5-7, 2013.

C. E. Johnson, L. Costa, J. A. Johnson, D. E. Brown, S. Somarajan, W. He, J. H. Dickerson, "Mössbauer Spectra and Superparamagnetism of Europium Sulfide Nanoparticles", Proceedings of the 7th North American Mössbauer Symposium, University of Texas at Austin, Texas, January 11-12, 2013.

Jonathan A. Merten, Christian G. Parigger, Cheyenne J. Sheppard, Matthew P. Jones, Susan D. Allen, "Spatiotemporal evolution of plasma molecular emission following laser ablation of explosive analogs", paper 8710-32, Proceedings of the 2013 Defense Security + Sensing Conference of the SPIE, Baltimore, MD, USA, May 1, 2013.

Christian G. Parigger, David M. Surmick, Alexander C. Woods, A.B. Donaldson, and Jonathan L. Height, "Measurement and analysis of aluminum monoxide flame emission spectra", 8th Meeting of the Combustion Institute, Paper 308, 12 pages, Park City, UT, USA, May 20, 2013.

Presentations - Conferences and Seminars:

G. M. Murray, "Sensors Based on Ionic Imprinting of Polymers", US Army TARDEC, Warren, MI 48092, July 18, 2012.

Robert J. Baltz, Gregg R. Beitel, Nickolas A. Galyen, T. M. Moeller, and M. M. May, "AEDC/UTSI J85 Turbojet Test Stands", 48th AIAA/ASME/SAE/ASEE Joint Propulsion Conference, Atlanta, GA, July 30–August 1, 2012.

Trevor M. Moeller, L. Montgomery Smith, Frank G. Collins, Jesse M. Labello, James P. Rogers, Heard S. Lowry, Dustin H. Crider, "Measurement of the accumulation of water ice on optical components in cryogenic vacuum environments," the SPIE Optics + Photonics 2012 Conference, San Diego, CA, August 12-16, 2012.

L. M. Davis, J. A. Germann, J. K. King, B. K. Canfield, "Counteracting Brownian diffusion in three dimensions for prolonged observations of freely diffusing single fluorescent nanoparticles", Japan Society of Applied Physics-Optical Society of America Joint Symposium 2012, Ehime University / Matsuyama University, Japan, September 11-14, 2012.

L. M. Davis, B. K. Canfield, L. Costa, D. Rajput, W. Hofmeister, A. Terekhov, "Single-pulse femtosecond laser fabrication of high-aspect sub-micron structures in transparent substrates", Japan Society of Applied Physics-Optical Society of America Joint Symposium 2012, Ehime University / Matsuyama University, Japan, September 11-14, 2012.

B. Canfield, L. Costa, D. Rajput, A. Terekhov, W. Hofmeister, L. Davis, C. Rouleau, A. Puretzky, D. Geohegan, "Femtosecond laser micro/nano-machining of holes and lines in fused silica", 2012 Center for Nanophase Materials Science User Meeting, Oak Ridge National Laboratory, Oak Ridge, TN, September 13-14, 2012.

Carlos Alvarez, Yuzi Liu, Jacqueline Johnson and Amanda Petford-Long, "Investigations of Nanocrystal Phase Transformation in Glass Ceramics", 2012 SACNAS National Conference, Seattle, WA, USA, October 11-14, 2012.

Jacqueline Johnson, Carlos Alvarez, Yuzi Liu, Charles Johnson and Amanda Petford-Long, "Phase Transformations in ZBLAN Glass Ceramics", AVS 59th International Symposium and Exhibition, Tampa, FL, USA, October 28 - November 2, 2012.

Alexander C. Woods and Christian G. Parigger, "Acquisition and Analysis of Titanium Monoxide Spectra in Plasma", Poster presentation, 79th Annual Meeting of the Southeastern Section of the American Physical Society (APS), Tallahassee, FL, November 14-17, 2012.

David M. Surmick, Alexander C. Woods, Christian G. Parigger, Jonathan L. Height, A. B. Donaldson and Walt Gill, "Spectroscopy of Aluminum Monoxide in Flames", Poster presentation, 79th Annual Meeting of the Southeastern Section of the American Physical Society (APS), Tallahassee, FL, USA, November 14 -17, 2012.

J. K. King, B. K. Canfield, L. M. Davis, "Electrokinetic trapping of a single fluorescent nanobead", Annual Meeting of the South East Section of the American Physical Society, Tallahassee, FL, November 14-17, 2012.

J. A. Germann, B. K. Canfield, L. M. Davis, "Single emitter localization using a four-focus confocal fluorescence microscope", Annual Meeting of the South East Section of the American Physical Society, Tallahassee, FL, November 14-17, 2012.

Mohammad R. Rezaee and Christian G. Parigger, "Self-absorption of hydrogen Balmer lines in laser induced plasma," 79th Annual Meeting of the American Physical Society Southeastern Section, Bulletin of the American Physical Society, p. 45, Tallahassee, FL, USA, November 14-17, 2012.

Michael Witte, Christian G. Parigger, Nathan A. Bullock, Jonathan A. Merten and Susan D. Allen, "Measurement and Analysis of C2 Swan Spectra Following Breakdown of Nitro Compound Simulants", 79th Annual Meeting of the APS Southeastern Section, Bulletin of the American Physical Society, p. 44, Tallahassee, FL, USA, November 14-17, 2012.

L. D. Swafford, C. G. Parigger, H. Y.Hah, S. Gray, M. Cole, D. Warnberg, C. E. Johnson, J. A. Johnson and E. Shafranovsky, "Iron Nanoparticle Mössbauer Spectroscopy with Rare-Earth Permanent Magnets", 79th Annual Meeting of the American Physical Society Southeastern Section, Bulletin of the American Physical Society 57 (16) p. 48, Tallahassee, FL, USA, November 14-17, 2012.

H. Y. Hah, M. Cole, S. Gray, C. E. Johnson, J. A. Johnson, V. Kolesnichenko, P. Kucheryavy and G. Goloverda, "Stoichiometry of Fe₃O₄ nanoparticles determined by Mössbauer spectroscopy", 79th Annual Meeting of the American Physical Society Southeastern Section, Bulletin of the American Physical Society 57 (16) p. 50, Tallahassee, FL, November 14 -17, 2012.

Christian G. Parigger, "On Interests in Applied Physics", Rotary International, December 4, 2012, Winchester, TN, USA.

Richard J. Thompson, Andrew Wilson, Trevor Moeller, Charles L. Merkle, "A Strong Conservative Implicit Riemann Solver for Coupled Navier-Stokes and Full Maxwell Equations", Presented at the 51st AIAA Aerospace Sciences Meeting, including the New Horizons Forum and Aerospace Exhibition, Paper number AIAA-2013-0210, Chapter DOI: 10.2514/6.2013-210, Grapevine, TX, January 7-10, 2013.

G. M. Murray, "Development of Colorimetric Imprinted Polymers for Explosive Detection," Royal Oaks Industries, Detroit, MI, January 11, 2013.

L. M. Davis, "Physics and the Center for Laser Applications at the University of Tennessee Space Institute", NASA Marshall, Huntsville, AL, February 22, 2013.

L. M. Davis, N. J. Orfield, S. Rosenthal, "Ultrasensitive spectroscopy of ultrasmall quantum dots for energy conversion and lighting applications", Annual Meeting of American Physical Society, Baltimore, MD, March 18–22, 2013.

J. A Germann, B. K Canfield, J. K King, L. M Davis, "Sub-diffraction position determination with four laser diodes for tracking/trapping a single molecule", Annual Meeting of American Physical Society, Baltimore, MD, March 18–22, 2013.

T. Bowman, B. Canfield, L.M. Davis, "Pump-probe experiments of single-pulse femtosecond laser plasma-channel formation in fused silica", Annual Meeting of American Physical Society, Baltimore, MD, March 18–22, 2013.

S. Behery, B. Wang, B. Canfield, L.M. Davis, "FPGA for single-molecule recycling in a nanochannel", Annual Meeting of American Physical Society, Baltimore, MD, March 18–22, 2013.

B. K. Canfield, W. H. Hofmeister, L. M. Davis, "Femtosecond laser fabrication of micro/nano-channel array devices for parallelized fluorescence detection", Annual Meeting of American Physical Society, Baltimore, MD, March 18–22, 2013.

J. K. King, B. K. Canfield, L. M. Davis, "Electrokinetic device for three-dimensional trapping of single fluorescent emitters", Annual Meeting of American Physical Society, Baltimore, MD, March 18–22, 2013.

William Hofmeister, "Reflections on Research, Education and Learning", Vanderbilt Chapter Sigma Xi Annual Banquet, University Club Nashville, TN, April 27, 2013.

Jonathan A. Merten, Christian G. Parigger, Cheyenne J. Sheppard, Matthew P. Jones, and Susan D. Allen, "Spatiotemporal evolution of plasma molecular emission following laser ablation of explosive analogs", Oral presentation, paper 8710-32, 2013 Defense Security + Sensing Conference of the SPIE, Baltimore, MD, USA, April 29 – May 3, 2013.

Lei Shi, Ying-Ling Chen, J. W. L. Lewis, Ming Wang, "Clinical Testing of a New Objective Binocular Refraction Device for Pediatric Vision Screening", Invest Ophthalmol Vis Sci, 54: E-Abstract 5673, ARVO 2013 Annual Meeting, Seattle, WA, May 5-9, 2013.

Ying-Ling Chen, Lei Shi, J. W. L. Lewis, Ming Wang, "Pilot Testing of a Multi-Functional Device for Pediatric Vision Screening Application", Invest Ophthalmol Vis Sci, 54: E-Abstract 5681, ARVO 2013 Annual Meeting, Seattle, WA, May 5-9, 2013.

Christian G. Parigger, David M. Surmick, Alexander C. Woods, A.B. Donaldson, and Jonathan L. Height, "Measurement and analysis of aluminum monoxide flame emission spectra", Oral presentation, 8th Meeting of the Combustion Institute, Park City, UT, USA, May 19-22, 2013.

Hien-Yoong Hah, Lee Leonard, Sharon Gray, Charles Johnson and Jacqueline Johnson, "Rare-earth doped downshifting glass ceramics for photovoltaic applications", 10th Pacific Rim Conference on Ceramic and Glass Technology, San Diego, CA, USA, June 2-7, 2013.

Christian G. Parigger, "Grassroots 06-04-2013 UTSI Physics", Charter Channel 6 the Link -PeaHead Productions, <http://www.youtube.com/watch?v=gen1jJO-SNI>, Talk show guest, June 4, 2013, Tullahoma, TN, USA.

J. K. King, J. A. Germann, L. M. Davis, "Anti-Brownian Electrokinetic Trapping of Single Nanoparticles in Solution", TN-SCORE Annual Conference, Nashville Airport Marriott, Nashville, TN, June 10-11, 2013.

Thomson, R. J., Wilson, A., Moeller, T. M., Merkle, C. L., "An AUSM-based Algorithm for Solving the Coupled Navier-Stokes and Maxwell Equations", Presented at the 44th AIAA Plasmadynamics and Lasers Conference, Paper number AIAA 2013-3005. 10.2514/6.2013-3005, San Diego, CA, June 24-27, 2013.

Christian G. Parigger, Jacqueline A. Johnson, and Robert Splinter, "Optical Diagnostic and Therapy Applications of Femtosecond Laser Radiation using Lens-Axicon Focusing", 35th Annual International IEEE EMBS Conference of the IEEE Engineering in Medicine and Biology Society, Osaka, Japan, July 3-7, 2013.

Invited Presentations:

L. Leonard, C. Foerster, C. Alvarez, A. Petford-Long, R. Weber, C. Paßlick and S. Schweizer, "Crystallization studies of ZBLAN glasses by DSC and in situ TEM", Glass and Optical Materials Division Annual Meeting, American Ceramic Society, St. Louis, MO, USA, May 2012.

Christian G. Parigger, Jacqueline A. Johnson and Robert Splinter, "On Optical Imaging of Tissue: Aspects of Photo-Acoustic Femtosecond Spectroscopy", 34th Annual International Conference on the IEEE Engineering in Medicine and Biology San Diego, USA, August 28-September 1, 2012.

Jacqueline Johnson, Lee Leonard, Sharon Gray, Christian Paßlick, Carlos Alvarez, Stefan Schweizer and Amanda Petford-Long, "X-ray imaging enhancement with glass ceramic plates", Innovations in Biomedical Materials 2012, Raleigh, NC, USA, September 10-13, 2012.

C. Paßlick, J. A. Johnson, A. R. Lubinsky and S. Schweizer, "Glass ceramics for storage phosphor applications", 8th International Conference on Luminescent Detectors and Transformers of Ionizing Radiation – LUMDETR 2012, Halle (Saale), Germany, September 10-14, 2012.

Jacqueline Anne Johnson, Rick Lubinsky and Stefan Schweizer, "Glass Ceramics for Radiation Detection", Materials Science & Technology 2012 Conference & Exhibition, Pittsburgh, PA, USA, October 7-11, 2012.

Christian G. Parigger, Jacqueline A. Johnson and Robert Splinter, "Physiological Sensing through Tissue with Femto-second Laser Radiation", 2012 9th International Conference on High Capacity Optical Networks and Emerging/Enabling Technologies (HONET) Istanbul, Turkey, December 12-14, 2012.

Jacqueline Johnson, "Nanoparticles in Medicine", Seminar, Middle Tennessee State University, Murfreesboro, TN, USA, (2013).

C. E. Johnson, L. Costa, J. A. Johnson, D. E. Brown, S. Somarajan, W. He and J. H. Dickerson, "Mössbauer Spectra and Superparamagnetism of Europium Sulfide Nanoparticles", 7th North American Mössbauer Symposium, Austin, TX, USA, January 11-12, 2013.

Jacqueline Johnson, Lee Leonard, Carlos Alvarez, Sharon Gray, Rick Lubinsky, Amanda Petford-Long, Stefan Schweizer and Charles Johnson, "X-ray imaging enhancement using nanoscience", 37th International Conference and Expo on Advanced Ceramics and Composites, Daytona Beach, FL, USA, January 27 – February 1, 2013.

J. Johnson, L. Leonard, H. Hah, C. Alvarez, R. Lubinsky, C. Johnson, A. Petford-Long, "Nanostructured glass-ceramic x-ray imaging plate", (PACRIM10-S24-007-2013), 10th Pacific Rim Conference on Ceramic and Glass Technology, San Diego, CA, USA, June 2-7, 2013.

Patents, Patent Applications and Disclosures:

"Molecularly Imprinted Sensor Device", Murray, G. M. et al, U. S. Patent Number 8,241,575, Publication Date: August 14, 2012.

"Use of Beam Deflection to Control an Electron Beam Wire Deposition Process", K. M. Taminger, W. H. Hofmeister and R. A. Hafley, U. S. Patent Number 8,344,281 issued January 1, 2013.

"Nanostructures from Laser-Ablated Nanohole Templates", W. H. Hofmeister, A. Y. Terekhov, J. L. V. Da Costa, K. S. Lansford, D. Rajput, L. M. Davis, U. S. Patent Application 20130216779, Application Number 13/769,575; Publication Date: August 22, 2013, filed February 18, 2013.

"Adaptive Photoscreening System", Ying-Ling Ann Chen, James W. L. Lewis, U.S. Patent No. 8,403,480, March 26, 2013.

Presentation material for FY2013 Results May 20, 2014. 1. Trend of business results 2. Domestic P&C insurance 3. Domestic Life insurance 4. Overseas insurance Data. 1. Main points of Consolidated Results for FY2013 " Underwriting profit. u Core underwriting profit* improved significantly due to premium growth and a decline in claims paid. Breakdown of underwriting profit (Sompo Japan + Nipponkoa). Addendum to the Fiscal Year 2013 USPTO Performance and Accountability Report (PAR). The USPTO Performance and Accountability Report (PAR) for FY 2013 provides a comprehensive summary of program and financial results and is structured to help the President, the Congress, and the American public assess our performance relative to our mission and accountability for our financial resources. The United States Patent and Trade mark Office has over the last year continued to foster innovation, competitiveness, and economic growth at home and abroad, while maintaining the standard for what a user-friendly, stakeholder-oriented 21st-century government agency can be. Summary of FY2012 program activity. Registry. During FY2012, the EA reviewed more than 2,200 proposed category and subcategory submissions from 47 departments and agencies. Similar proposals were consolidated to eliminate redundancies and provide consistency among like categories. Patent is a property right granted by the Government of the United States of America to an inventor "to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States" for a limited time in exchange for public disclosure of the invention when the patent is granted. Authority links are updated based on regular re-publication of the United States Code and Code of Federal Regulations. The FY2013 request totals \$54.87 billion for the State-Foreign Operations appropriations, including a core budget proposal of \$46.63 billion plus \$8.24 billion for extraordinary and temporary war-related Overseas Contingency Operations (OCO) in frontline states. The total request represents an increase of 2.6% over the estimated FY2012 funding level for the foreign affairs accounts, including \$18.8 billion (a 4.5% increase) for State Department and Related Agencies and \$36.1 billion (a 0.1% increase) for Foreign Operations. Florida Jurisdictional Chapter. Summer 2012 Conclave Proceedings. State scribe preface. It is with great pleasure that I present for all reading the Proceedings of the Florida Jurisdictional Chapter for the 2012 Summer Conclave. It's been a spectacular year for Florida DeMolay and it has been my pleasure to be a part of and serve this Order. I wish the best of luck to all future and present State Officers. How he has his Past Master Councilor's " Meritorious Service Award, his. Lamp of Knowledge, his Representative DeMolay, Chevalier, the Distinguished Service Award, and. explained how he personally helped start chapter in Miami area. Candidate for State Senior Councilor, Bro.