

## **Publications (reviewed journal papers)** (\* corresponding author)

1. Yiyu Li; Yin Liu; Vladimir Fedorov; Sergey B Mirov, Yiquan Wu\*, Hot-pressed Chromium Doped Zinc Sulfide Infrared Transparent Ceramics, **Scripta Materialia**, 125 (15–18), 2016.
2. Yin Liu, Yiquan Wu\*. Electric-field Enhanced Solid-state Conversion of Ceramic  $\text{Sr}_5(\text{PO}_4)_3\text{F}$  to Crystals. **Journal of the American Ceramic Society**, J. Am. Ceram. Soc., 1–8 (2016).
3. Xingtao Chen, Tiecheng Lu, Yiquan Wu\*, Nian Wei, Jianqi Qi, Lijia Chen, Yin Liu, Ammonium Citrate-assisted Combustion Synthesis and Photoluminescence Properties of Dy:YAG Nanophosphors, **J Sol-Gel Science and Technology**, in press, 2016.
4. Yan Yang, Bu Wang, Alastair Cormack, Eugeniusz Zych, Hyo Jin Seo, Yiquan Wu\*, Theoretical Analysis and Experiment on Eu Reduction in Alumina Optical Materials, **Optical Materials Express**, 6 (7), 2404-2412, 2016.
5. H Wu, J Yin, Y Li, Y Zhu, X Liu, SH Lee, Y Wu, Z Huang, Aqueous Gelcasted  $\text{ZrB}_2$ -SiC Foams Derived from Composite Poring Mechanisms, **Ceramics International**, 42 (1), 1573-1580, 2016.
6. Yin Liu, Yuxuan Gong, Nathan P. Mellott, Yiquan Wu\* “Luminescence of Delafossite-type  $\text{CuAlO}_2$  Fibers with Eu Substitution for Al Cations”, **Science and Technology of Advanced Materials**, 17 (1), 200-209, 2016.
7. Yiyu Li, Lihua Zhang, and Yiquan Wu\*. "Synthesis and Characterization of Calcium Lanthanum Sulfide via a Wet Chemistry Route Followed by Thermal Decomposition." **RSC Advances**, 6 (41), 34935-34939, 2016.
8. Bo Zhang, Qing Zhao, Aimin Chang, Yiquan Wu\*, Hongyi Li, Spark Plasma Sintering of  $\text{MgAl}_2\text{O}_4$ - $\text{LaCr}_{0.5}\text{Mn}_{0.5}\text{O}_3$  Composite Thermistor Ceramics and a Comparison Investigation with Conventional Sintering, **Journal of Alloys and Compounds**, 675 (8): 381-386, 2016.
9. J Yin, Y Li, Y Wu\*, Near-net-shape Processed ZnS Ceramics by Aqueous Casting and Pressureless Sintering, **Ceramics International** 42 (9), 11504-11508, 2016.
10. Yin, Jie, Yin Liu, Yiquan Wu\*. Three-step Densification of Monolithic SiC Ceramics by Spark Plasma Apparatus without Sintering Additives. **Ceramics International**, 42 (5), 6515–6519, 2016.
11. Yan Yang, Jose A. Jimenez, Yiquan Wu\*, “Strong Red-emission of  $\text{Eu}^{3+}:\text{Li}_4\text{Ti}_5\text{O}_{12}$  Powders for Phosphor Applications”, **Journal of Luminescence**, 176 (8), 100-105, 2016.
12. Nelson S. Bell, Todd Monson, Chris DiAntonio, Yiquan Wu, “Practical Processing of Multication Ceramic Colloids”, **Journal of Ceramic Science and Technology**, 7 (1): 1-28, 2015.
13. Yin Liu, Sureeporn Chothirawat, Yiquan Wu\*, “Electrohydrodynamic Processing of p-type Transparent Conducting Oxide” **Journal of Nanomaterials**, Vol. 2015 (2015), 423157.

14. Yan Yang; Hua Wei; Lihua Zhang; Kim Kisslinger; Charles L Melcher , Yiquan Wu\*, “Blue Emission of  $\text{Eu}^{2+}$ -doped Translucent Alumina”, **Journal of Luminescence**, 168 (12), 297-303, 2015.
15. Y. Li, and Y. Wu\*, “Spectroscopic Characteristics of ( $\text{Mn}^{2+}$ ,  $\text{Nd}^{3+}$ ) co-doped Zinc Sulfide Nanocrystals”, **Optical Materials**, 49 (11), 100-104, 2015.
16. Y. Li, and Y. Wu\*, “Transparent and Luminescent ZnS Ceramics Consolidated by Vacuum Hot Pressing Method”, **Journal of the American Ceramic Society**, 98 (10), 2972-2975, 2015.
17. Q. Zhao, B. Zhang, A. Chang, and Y. Wu, “Electrical Properties and Aging Mechanism of  $\text{Y}_2\text{O}_3\text{-MCr}_{0.5}\text{Mn}_{0.5}\text{O}_3$  (M = Sm, Gd) Composite NTC Ceramics”, **Journal of Materials Science: Materials in Electronics**, 26 (6), 4221-4225, 2015.
18. Y. Yang and Y. Wu\*, "Environmentally Benign Processing of YAG Transparent Wafers," **Optical Materials**, 50, 32-35, 2015.
19. Yin Liu, Yanlin Huang, Hyo Jin Seo, Yiquan Wu\*, Blueshift in Near-band-edge Emission in  $\text{Y}^{3+}$  Doped  $\text{CuAlO}_2$  Nanofibers. **Optical Materials Express**, 4:2602-2607, 2014.
20. Yiquan Wu\*, “Nanostructured Transparent Ceramics with an Anisotropic Crystalline Structure”, **Optical Materials Express**, 4(10), 2026-2031, 2014.
21. Yin Liu, Thomas L. Olson, Yiquan Wu\*, “Luminescence and Microstructure of Nd Doped  $\text{Y}_2\text{Si}_2\text{O}_7$  Electrospun Fibers, **Journal of American Ceramic Society**, 97 (8), 2390-2393, 2014.
22. Shi Chen, Yiquan Wu\*, “Influence of Temperature on the Spark Plasma Sintering of Calcium Fluoride Ceramics”, **Journal of Materials Research**, 29 (19) 2297-2302, 2014.
23. Yan Yang, Yiquan Wu\*, “Tape-casted Transparent Alumina Ceramic Wafers”, **Journal of Materials Research**, 29 (19) 2312-2317, 2014.
24. Bo Zhang, Aimin Chang, Qing Zhao, Haitao Ye, Yiquan Wu\*, “Synthesis and Thermoelectric Properties of Yb-doped  $\text{Ca}_{0.9-x}\text{Yb}_x\text{La}_{0.1}\text{MnO}_3$  Ceramics”, **Journal of Electronic Materials**, 43 (11) 4048-4055, 2014.
25. Yiquan Wu\*, Electrohydrodynamic Atomization Processing Biologically Nanostructured Materials, Editorial, **Bioceramics Development and Applications**, 4(2) 2014.
26. Bo Zhang, Qing Zhao, Aimin Chang, Yiyu Li, Yin Liu, Yiquan Wu\*, “Spark Plasma Sintering of  $\text{MgAl}_2\text{O}_4\text{-YCr}_{0.5}\text{Mn}_{0.5}\text{O}_3$  Composite NTC Ceramics”, **Journal of the European Ceramic Society** 34, 2989–2995, 2014.
27. Bo Zhang, Qing Zhao, Aimin Chang, Haitao Ye, Shi Chen, Yiquan Wu\*, “New Negative Temperature Coefficient Thermistor Ceramics in Mn-doped  $\text{CaCu}_{3-x}\text{Mn}_x\text{Ti}_4\text{O}_{12}$  System”, **Ceramics International**, 40(7) 11221-11227, 2014

28. Yiyu Li, Lihua Zhang, Kim Kisslinger, Yiquan Wu\*, "Green Phosphorescence of Zinc Sulfide Optical Ceramics", **Optical Materials Express**, 4(6) 1140-1150, 2014.
29. Bo Zhang, Qing Zhao, Aimin Chang, Yiyu Li, Yin Liu, Yiquan Wu\*, "Electrical Conductivity Anomaly and X-ray Photoelectron Spectroscopy Investigation of  $\text{YCr}_{1-x}\text{Mn}_x\text{O}_3$  NTC Ceramics", **Applied Physics Letters**, 104 (10), 102109, 2014.
30. Bo Zhang, Qing Zhao, Aimin Chang, Yin Liu, Yiyu Li, Yiquan Wu\*, "Synthesis of  $\text{YCrO}_3$  Ceramics through a Field-assisted Sintering Technique", **Journal of Materials Science: Materials in Electronics**, (25)1400-1403, 2014.
31. Yin Liu, Michael Alberga, Yiquan Wu\*, "Spark Plasma Sintering of Oxides and Carbide Dispersed Zirconia Inert Matrix Fuels", **Ceramics International**, 40(4) 5313-5320, 2014.
32. B. Zhang, AM. Chang, Q. Zhao, HT. Ye, Y. Q. Wu\*, "MgAl<sub>2</sub>O<sub>4</sub>-LaCr<sub>0.5</sub>Mn<sub>0.5</sub>O<sub>3</sub> Composite Ceramics for High Temperature NTC Thermistors", **Journal of Materials Science: Materials in Electronics** 24: 4452-4456, 2014.
33. Chen, S.; Wei, H.; Melcher, C. L. and Wu, Y. Q\*. "Spectroscopic Properties of Transparent  $\text{Y}_3\text{Al}_5\text{O}_{12}:\text{Eu}$  Ceramics", **Optical Materials Express**, 3(12) 2022-2027, 2013.
34. Shi Chen, Yiquan Wu\*, "New Opportunities for Transparent Ceramics", **Bulletin of American Ceramics Society**, 2013(92)2: 32-37.
35. Shi Chen, Lihua Zhang, Kim Kisslinger, Yiquan Wu\*, "Transparent  $\text{Li}_{0.05}\text{Y}_3\text{Al}_5\text{O}_{12}:\text{Ce}^{3+}_{0.01}$  Ceramics for Thermal Neutron Detection", **Journal of the American Ceramics Society**, 2013 (96) 4: 1067-1069.
36. Shi Chen, Yiquan Wu\*, Yan Yang, "Spark Plasma Sintering of Hexagonal Structure  $\text{Yb}^{3+}$  doped  $\text{Sr}_5(\text{PO}_4)_3\text{F}$  Transparent Ceramics", **Journal of the American Ceramics Society**, 2013 (96) 6: 1694-1697.
37. Shi Chen, Linlin Zhang, Yiquan Wu\*, Guohong Zhou, Peng Liu, Yan Yang, Shiwei Wang, "Chelation-controlled compound transition of luminescent fluoride crystals", **Materials Letters**, 2013 (106): 326-331.
38. Yiquan Wu\*, Jing Du, Robert L. Clark, "Synthesis of  $\text{Yb}^{3+}$  doped  $\text{Sr}_5(\text{PO}_4)_3\text{F}$  nanoparticles through co-precipitation", **Materials Letters**, 2013 (107) 15: 68-70.
39. Wenliang Zhu, Yiquan Wu\*, Jing Du, Andrea Leto, and Giuseppe Pezzotti, "Cathodoluminescence and Raman spectroscopic analyses of Nd- or Yb-doped  $\text{Y}_2\text{O}_3$  transparent ceramics", **Journal of Physical Chemistry A**. 2013, 117(17) 3599-3607.
40. Chen, Shi, Yang, Yan, Zhou, Guohong, Wu, Yiquan\*, Liu, Peng, Zhang, Fang, Wang, Shiwei, Trojan-Piegza, Joanna, Zych, Eugeniusz, "Characterization of afterglow-related spectroscopic effects in vacuum sintered  $\text{Tb}^{3+}$ ,  $\text{Sr}^{2+}$  doped  $\text{Lu}_2\text{O}_3$  ceramics", **Optical Materials**, 2012 (35)2: 240-243.

41. Zexuan Dong, Yiquan Wu\*, Qin Wang, Chao Xie, Yanfang Ren, Robert L Clark "Reinforcement of electrospun membranes using nanoscale Al<sub>2</sub>O<sub>3</sub> whiskers for improved tissue scaffolds", **Journal of Biomedical Materials Research Part A**, 100 A(4) (2012), 903-910.
42. Supacharee Roddecha, Zexuan Dong, Yiquan Wu, Mitchell Anthamatten "Mechanical properties and ionic conductivity of electrospun quaternary ammonium ionomers", **Journal of Membrane Science**, 389 (2012) 478- 485.
43. Nathan J. Jenness, Yiquan Wu, Robert L. Clark, "Fabrication of Three-dimensional Electrospun Microstructures using Phase Modulated Femtosecond Laser Pulses", **Materials Letters**, 66(2012)360-363.
44. Zexuan Dong, Scott J. Kennedy, Yiquan Wu\*, "Electrospinning Materials for Energy-related Applications and Devices", **Journal of Power Sources**, 196 (2011) 4886-490.
45. Zexuan, Dong, Yiquan Wu\*, Robert, Clark, "Thermodynamic Modeling and Investigation of the Formation of Electrospun Collagen Fibers", **Langmuir**, 27 (2011) 12417-12422.
46. Yiquan Wu\*, Zexuan Dong, Nathan J. Jenness, Robert L. Clark. "In-situ formation of Cu metal crystals within nanostructured ZnO electrospun fibers", **Materials Letters**, 65 (2011) 2683-2685.
47. Yiquan Wu, A.Y. Vorobyev, Robert L Clark, Chunlei Guo, "Femtosecond Laser Machining of Electrospun Membranes", **Applied Surface Science**, 257(2011) 2432-2435.
48. Yiquan Wu\*, Zexuan Dong, Scott Wilson, Robert L. Clark, "Template-assisted Assembly of Electrospun Fibers", **Polymer**, 51 (2010) 3244-3248.
49. Jing Du, Yiquan Wu, K. L. Choy, P. Shipway, "Structure, Properties and Gas Sensing Behavior of Cr<sub>2-x</sub>Ti<sub>x</sub>O<sub>3</sub> Films Prepared by Electrostatic Spray Assisted Vapor Deposition", **Thin Solid Films**, 519 (4) 2010, 1293-1299.
50. Yiquan Wu, I-Chien Liao, Scott Kennedy, Jun Wang, Jinzhi Du, Kam Leong, Robert Clark, "Electrosprayed core-shell microspheres for protein delivery", **Chemical Communication**, 46 (2010) 4743-4745.
51. Jing Du, Yiquan Wu, K. L. Choy, and P. H. Shipway, "Structure Evolution and Stoichiometry Control of Pb(Zr, Ti)O<sub>3</sub> Thick Films Fabricated by Electrostatic Assisted Vapor Deposition", **Applied Surface Science**, 256 (2010) 4606-4611.
52. Yiquan Wu, Scott Kennedy and Robert L. Clark, "Polymeric Particle Formation through Electrostatic Spraying at Low Atmospheric Pressure", **Journal of Biomedical Materials Research B**, 90 (2009) 381-387.
53. Yiquan Wu, Andrew MacKay, Jonathan McDaniel, Ashutosh Chilkoti and Robert L. Clark, "Fabrication of Elastin-Like Polypeptide Nanoparticles for Drug Delivery by Electrostatic Spraying", **Biomacromolecules**, 10(2009) 19-24.

54. Yiquan Wu and Robert L. Clark, "Electrohydrodynamic Atomization: a Versatile Process for Preparing Materials for Biomedical Applications", **Journal of Biomaterials Science: Polymer Edition**, 19 (2008) 573-601.
55. Yiquan Wu, Matthew S. Johannes and Robert L. Clark, "AFM-based Voltage Assisted Nanoelectrospinning", **Materials Letters**, 62 (2008) 699-702.
56. Yiquan Wu, Lisa A. Carnell and Robert L. Clark, "Control of Electrospun Mat Width Through the Use of Parallel Auxiliary Electrodes", **Polymer**, 48 (2007) 5653-5661.
57. Yiquan Wu and Robert L. Clark, "Controllable Porous Polymer Particles Generated by Electrospinning", **Journal of Colloid and Interface Science**, 310 (2007) 529-535.
58. Yiquan Wu, Jing Du, Kwang-Leong Choy and Larry L. Hench, "Laser Densification of Alumina Powder Beds Generated using Aerosol Assisted Spray Deposition", **Journal of the European Ceramic Society**, 27(2007)4727-4735.
59. Yiquan Wu, Jing Du, Kwang-leong Choy and Larry L. Hench, "Fabrication of Titanium Dioxide Ceramics by Laser Sintering Green Layers Prepared via Aerosol Assisted Spray Deposition", **Materials Science & Engineering A**, 454-455 (2007) 148-155.
60. Yiquan Wu and Kwang-Leong Choy, "Solid Freeform Fabrication of Alumina using Laser-Assisted ESAVD", **Applied Surface Science**, 252 (2006) 4809-4813.
61. Yiquan Wu, Jing Du and Kwang-Leong Choy, "Novel Deposition of Columnar  $Y_3Al_5O_{12}$  Coatings by Electrostatic Spray Assisted Vapor Deposition", **Journal of the American Ceramic Society**, 89[1] 385-387 (2006).
62. Jing Du, Yiquan Wu and Kwang-Leong Choy, "Controlled Synthesis of Gas Sensing  $Cr_{2-x}Ti_xO_3$  Films by Electrostatic Spray Assisted Vapour Deposition and their Structural Characterization", **Thin Solid Films**, 497[1-2] 42-47 (2006).
63. Yiquan Wu\*, Jing Du, Kwang-Leong Choy, Larry L. Hench and Jingkun Guo, "Formation of Interconnected Microstructural  $ZnAl_2O_4$  Films Prepared by Sol-gel Method", **Thin Solid Films**, 472 [1-2] 150-156 (2005).
64. Yiquan Wu, Kwang-Leong Choy and Larry L. Hench, "Laser Densification of  $TiO_2$  Films Prepared by Aerosol Assisted Vapour Deposition", **Applied Surface Science**, 247(2005) 378-383.
65. Yiquan Wu, Larry L. Hench, Jing Du, Kwang-Leong Choy and Jingkun Guo "Preparation of Hydroxyapatite Fibers by Electrospinning Technique", **Journal of the American Ceramic Society**, 87[10] 1988-1991 (2004).
66. Yiquan Wu, Larry L Hench and Kwang-Leong Choy, "Preparation of Alpha Alumina Platelets by Laser Scanning", **Journal of the American Ceramic Society**, 87[10] 1606-1608 (2004).

67. Yiquan Wu and Kwang-Leong Choy, "Microstructure of Alumina Coatings Prepared by Aerosol Assisted Spray Deposition", **Surface and Coatings Technology**, 180-181 (2004) 436-440.
68. Yiquan Wu\*, Yufeng Zhang, Kwang-Leong Choy and Jingkun Guo, "Liquid-phase Sintering of Alumina with YSiAlON Oxynitride Glass", **Materials Letters**, 57 (2003) 3521-3525.
69. Yiquan Wu\*, Yufeng Zhang, Giuseppe Pezzotti and Jingkun Guo, "Effect of Glass Additions on Strength and Toughness of Polycrystalline Alumina", **Journal of the European Ceramics Society**, 22 (2002) 159-164.
70. Yiquan Wu\*, Yufeng Zhang, Giuseppe Pezzotti and Jingkun Guo, "Influence of  $AlF_3$  and  $ZnF_2$  on the Phase Transformation of Gamma to Alpha Alumina", **Materials Letters**, 52 (2002) 366-369.
71. Yiquan Wu\*, Yufeng Zhang, Xiaoxian Huang and Jingkun Guo, "Microstructure Development and Mechanical Properties of Self-Reinforced Alumina with CAS Addition", **Journal of the European Ceramics Society**, 21 (2001) 581-587.
72. Yiquan Wu\*, Yufeng Zhang, Jingkun Guo and Yawei Li, "New Application of Some High Technologies in Refractories", **China's Refractories**, 10 [4] (2001) 21-25.
73. Yiquan Wu\*, Yufeng Zhang, Xiaoxian Huang and Jingkun Gun, "Preparation of Platelike Nano Alumina Particles", **Ceramics International**, 27 (2001) 265-268.
74. Yiquan Wu\*, Yufeng Zhang, Shiwei Wang and Jingkun Guo, "In-situ Synthesis of Rodlike  $LaAl_{11}O_{18}$  in  $Al_2O_3$  Powder by a Coprecipitation Method", **Journal of the European Ceramics Society**, 21 (2001) 919-923.
75. Yiquan Wu\*, Yufeng Zhang, Xiaoxian Huang, Baoshun Li and Jingkun Guo, "Preparation, Sintering and Fracture Behavior of  $Al_2O_3/LaAl_{11}O_{18}$  Ceramic Composite", **Journal of Materials Science**, 36 (2001) 4195-4199.
76. Yiquan Wu\*, Yufeng Zhang, Xiaoxian Huang and Jingkun Guo, "In-situ Growth Needlelike  $LaAl_{11}O_{18}$  Reinforcement Alumina Composites", **Ceramics International**, 27 (2001) 903-906.