

رزومه کاری

1- مشخصات فردی

نام و نام خانوادگی: مجتبی قطعی

تاریخ تولد: 1354/6/15

نشانی محل کار: دانشگاه شاهرود- دانشکده مکانیک

نشانی محل اقامت: شاهرود- دانشگاه شاهرود- واحد 4

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2- سوابق تحصیلی

مقطع	سال اخذ مدرک	محل اخذ مدرک	گرایش تحصیلی	رشته تحصیلی
کارشناسی	۱۳۷۹	دانشگاه شیراز	شکل دادن فلزات	مهندسی مواد
کارشناسی ارشد	۱۳۸۱	دانشگاه شیراز	شناسایی، انتخاب و ساخت مواد فلزی	مهندسی مواد
دکتری	۱۳۸۷	دانشگاه شیراز	مهندسی مواد	مهندسی مواد

3- مشخصات پایان نامه ها

پایان نامه کارشناسی ارشد: بررسی اثر نیکل بر خواص سایش آلومینیم A356

خلاصه: در این پایان نامه اثر نیکل بر ریز ساختار و خواص مکانیکی کامپوزیت‌های زمینه فلزی آلومینیم بررسی شده است.

پایان نامه دکتری: بهینه سازی خواص سنسور اکسیژن

در این پایان نامه خواص الکتریکی و مکانیکی کامپوزیت‌های سرامیکی پایه زیرکونیا به منظور کاربرد در سنسورهای اکسیژن بررسی شده است.

4- پروژه های انجام شده در زمینه

- 1-4- ساخت لایه های نازک آلومینا و زیرکونیا به روش ریخته گری نواری
- 2-4- ساخت قطعات نازل دمای بالا به روش پرس تک محوره
- 3-4- ساخت قطعات دما بالا به روش قالب گیری تزریقی
- 4-4- ساخت لایه های نازک زیرکونیا به روش چاپ توری
- 5-4- ساخت قطعات گرد لایه نازک به روش چاپ توری (Screen printing)
- 6-4- ساخت سنسور اکسیژن پایه زیرکونیا به روش فشردن ایزواستاتیک سرد
- 7-4- ساخت سنسور اکسیژن پایه زیرکونیا به روش تزریق
- 8-4- ساخت شمع جرقه زن موتورهای هوایی به روش پرس ایزواستاتیک سرد
- 9-4- ساخت قطعات عایق الکتریکی دمای بالا به روش تزریق
- 10-4- ساخت پیل های سوختی اکسید جامد گایه زیرکونیا به روش ریخته گری نواری
- 11-4- ساخت میکروپیل های سوختی اکسید جامد پایه زیرکونیا به روش اکستروژن
- 12-4- ساخت میکروله های آلومینا به روش اکستروژن
- 13-4- ساخت بوته های آلومینایی به روش ریخته گری دوغایی
- 14-4- اعمال پوشش های SiC بر روی سطح آلومینا به روش سل ژل برای کاربرد در شمع های جرقه زن دمای بالا
- 15-4- ساخت راهنماهای سرامیکی قالب های کشش سیم (در حال انجام)
- 16-4- سنتز فاز مکس Ti_3SiC_2
- 17-4- ساخت سیال مغناطیسی - الاستومرهای مغناطیسی . پلیمرهای رسانا
- 18-4- ساخت لایه های نازک سرامیک های پیزوالکتریک از جنس PZT
- 19-4- ساخت زیرلایه های نازک آلومینا
- 15-4- ساخت قطعات دیسک شکل دقیق آلومینایی به روش ریخته گری ژله ای
- 16-4- ساخت بلوک های سرامیکی از جنس زیرکونیا جهت کاربرد در ایمپلنت های پزشکی
- 20-4- سنتز پودر ابررسانای YBCO در مقیاس آزمایشگاهی
- 21-4- ساخت میکرو المنت های حرارتی از جنس پلاتین به روش چاپ توری (در حال انجام)

- 1- M. Ghatee, M.H. Shariat, J.T.S. Irvine, "Investigation of electrical and mechanical properties of 3Y-TZP/Cubic zirconia solid electrolytes with composite structure prepared by near net shape forming" , Solid State Ionics 180 (2009) 5762.
- 2- M. Ghatee, M.H. Shariat, J.T.S. Irvine , Investigation of electrical and mechanical properties of 3YSZ/8YSZ composite electrolytes, Solid State Ionics 180 (2009) 5762
- 3- M. Ghatee, M.H. Shariat, J.T.S. Irvine, Production of high conductivity composite zirconia solid oxide electrolytes with good mechanical strength through net-shape J. Mater. Chem., 2008, 18, 5237 – 5242.
- 4- M. Ghatee, and J. T. S. Irvine, Investigation of electrical and mechanical properties of tetragonal/cubic zirconia composite electrolytes prepared through stabilizer coating method, Int. J. Hydrogen energy, 2010, Vol. 35, 9427-9433
- 5- M. Ghatee, F. Salari, Electrical and Mechanical Properties of 5YSZ Tubular Thin Film Prepared by Screen Printing Method, Int. J. Applied Ceramic Technology, 16(2016),373-381.
- 6- M. Ghatee, H. Salihi, Electrical and mechanical properties of 25 wt% tetragonal/cubic zirconia based composite thin films prepared by combination of aqueous tape casting and net shape methods, J. Electroceram., 35(2015), 98-105.
- 7- H. Asadollahi-yazdi, M. Shariati,, A. Imam, M. Ghatee, Investigating the mechanical properties of layered graphene/polyoxymethylene nanocomposites prepared by the spray method, Journal of composite materials, 51(2017), 3053-3064.
- 8- M. Ghatee, Electrical and mechanical properties of zirconia based cubic/tetragonal composite electrolytes prepared by solution coating method, Fuel cells, 18(2018), 13-17.
- 9- M. Ghatee, M. H. Shariat, Investigation of electrical and mechanical properties of tetragonal/cubic composite electrolytes prepared by impregnation of cubic zirconia with zirconia solution, Iran. J. mat. Sci. eng., 8(2011), 9-18.
- 10- H. Salihi, M. Ghaee, Investigation of the mechanical properties of various yttria stabilized zirconia based thin films prepared by aqueous tape casting, Advanced ceramic progress, 3(2017), 26-30.
- 11- A. Jalali, H. Dianati, M. Norouzi, H. Vatandoost, M. Ghatee, A novel bi-directional shear mode magneto-rheological elastomer vibration isolator, J. Intel. Mat. Sys. Str., (2020), in press.
- 12- S. H. Mussavi Rizi, M. ghatee, A study of mechanical properties of alumina –zirconia composite films prepared by a combination of tape casting and solution impregnation method, J. Aus. Ceram. Soc., 56(2020), 167-174.

- 13- N. Arab Baseri , M. Mohammadi , M. Ghatee , M. Abassi-Firouzjah, H. Elmkhah, The effect of duty cycle on the mechanical and electrochemical corrosion properties of multilayer CrN/CrAlN coatings produced by cathodic arc evaporation, *Surf. Eng.*, 2020, in press.
- 14- F. Salari, A. Badihi Najafabadi, M. Ghatee, M. Golmohammad, Hybrid additive manufacturing of the modified electrolyte-electrode surface of planar solid oxide fuel cells, *Int. J. Applied Ceramic Technology*, 17(2020), 1554-1561.
- 15- A.H. Dorosti, M. Ghatee, M. Norouzi, Preparation and characterization of water-based magnetorheological fluid using wormlike surfactant micelles, 498 (2020) 166193.
- 16- S. H. Mussavi Rizi, M. Ghatee, Rheological and mechanical properties of tape-casted zirconia-toughened alumina composite thick films reinforced with multiwalled carbon nanotubes, *J. comps. mater.*, 54(2019), 2353-2363.
- 17- P. Safarzadeh Kermani, M. Ghatee, A. Yazdani, Synthesis and characterization of barium aluminosilicate glass as the sealant for solid oxide fuel cell application, *Adv. ceram. prog.*, (2020), in press.
- 18- P. Safarzadeh kermani, M. Ghatee, J.T.S. Irvie, Characterization of barium-calcium-aluminosilicate glass/fiber glass composite seal for intermediate temperature solid oxide fuel cells, *Boletin de la Sociedad Espanola De Ceramica Y Vidrio*, 2022, In press
- 19- A. Yaghoobi, A. Jalali, M. Nouroozi, M. Ghatee, Aspect Ratio Dependency of Magneto-Rheological Elastomers in Dynamic Tension-Compression Loading, *IEEE Transactions on Magnetics*, 2022, in press
- 20- P. Safarzadeh, N. Rezaei, M. Ghatee, Barium-calcium aluminosilicate glass/mica composite seals for intermediate solid oxide fuel cells, *Ceramic Int.*, 2021(47), 21679-21687.
- 21- A. Kargar, S. Salimi, M.J. Molaei, M. Ghatee, A potential trackable bone filler: preparation and characterization, 2021(18), 1921-1929.
- 22- M. Yousefi, M. Ghatee, M. Rezakezemi, S.H. Ghaderi, The effects of adding nano-alumina filler on the properties of polymer-derived SiC coating, *Int. J. of app. Ceram. Tech.*, 2021 (18), 2197-2206.
- 23- R. Kherad, S. Dodangei, S.H. Mousavi, M. Ghatee, The effects of adding nano-alumina filler on the properties of polymer-derived SiC coating, *J. of electroceram.*, 2021(46), 32-42.
- 24- H. Naseri, M. ghatee, A. Yazdani, M. Mohammadi, S. Manafi, Characterization of the 3YSZ/CNT/HAP coating on the Ti6Al4V alloy by electrophoretic deposition, *J. Biomater. Res.*, 2021(109), 1395-1406.
- 25- A. Jalali, H. Dianati, M. Norouzi, H. Vatandoost, M. Ghatee, Characterization of the 3YSZ/CNT/HAP coating on the Ti6Al4V alloy by electrophoretic deposition, *Journal of Intelligent Material Systems and Structures*, 2021(31), 1-18.

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1- Personal information

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Research interest: Solid oxide fuel cells, Colloids, Ceramic processing methods

2- Education

- 1- BS in materials science and engineering, 2000, Shiraz University
- 2- MSc in materials science and engineering, 2002, Shiraz University
- 3- PhD in materials science and engineering, 2009, Shiraz University

3- Working experience

- 1- Academic Staff at Shahrood University of Technology (from 2008) as a lecturer and researcher.
- 2- Manager of fuel cell and ceramic processing lab (from 2009).
- 3- Dean of materials science and engineering faculty (20014-2018).

4- Journal papers

- 1- M. Ghattee, M.H. Shariat, J.T.S. Irvine, "Investigation of electrical and mechanical properties of 3Y-TZP/Cubic zirconia solid electrolytes with composite structure prepared by near net shape forming" , Solid State Ionics 180 (2009) 5762.
- 2- M. Ghattee, M.H. Shariat, J.T.S. Irvine , Investigation of electrical and mechanical properties of 3YSZ/8YSZ composite electrolytes, Solid State Ionics 180 (2009) 5762
- 3- M. Ghattee, M.H. Shariat, J.T.S. Irvine, Production of high conductivity composite zirconia solid oxide electrolytes with good mechanical strength through net-shape J. Mater. Chem., 2008, 18, 5237 – 5242.
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- 7- H. Asadollahi-yazdi, M. Shariati,, A. Imam, M. Ghatee, Investigating the mechanical properties of layered graphene/polyoxymethylene nanocomposites prepared by the spray method, *Journal of composite materials*, 51(2017), 3053-3064.
- 8- M. Ghatee, Electrical and mechanical properties of zirconia based cubic/tetragonal composite electrolytes prepared by solution coating method, *Fuel cells*, 18(2018), 13-17.
- 9- M. Ghatee, M. H. Shariat, Investigation of electrical and mechanical properties of tetragonal/cubic composite electrolytes prepared by impregnation of cubic zirconia with zirconia solution, *Iran. J. mat. Sci. eng.*, 8(2011), 9-18.
- 10- H. Salihi, M. Ghaee, Investigation of the mechanical properties of various yttria stabilized zirconia based thin films prepared by aqueous tape casting, *Advanced ceramic progress*, 3(2017), 26-30.
- 11- A. Jalali, H. Dianati, M. Norouzi, H. Vatandoost, M. Ghatee, A novel bi-directional shear mode magneto-rheological elastomer vibration isolator, *J. Intel. Mat. Sys. Str.*, (2020), in press.
- 12- S. H. Mussavi Rizi, M. ghatee, A study of mechanical properties of alumina –zirconia composite films prepared by a combination of tape casting and solution impregnation method, *J. Aus. Ceram. Soc.*, 56(2020), 167-174.
- 13- N. Arab Baseri , M. Mohammadi , M. Ghatee , M. Abassi-Firouzjah, H. Elmkhah, The effect of duty cycle on the mechanical and electrochemical corrosion properties of multilayer CrN/CrAlN coatings produced by cathodic arc evaporation, *Surf. Eng.*, 2020, in press.
- 14- F. Salari, A. Badihi Najafabadi, M. Ghatee, M. Golmohammad, Hybrid additive manufacturing of the modified electrolyte-electrode surface of planar solid oxide fuel cells, *Int. J. Applied Ceramic Technology*, 17(2020), 1554-1561.
- 15- A.H. Dorosti, M. Ghatee, M. Norouzi, Preparation and characterization of water-based magnetorheological fluid using wormlike surfactant micelles, 498 (2020) 166193.
- 16- S. H. Mussavi Rizi, M. Ghatee, Rheological and mechanical properties of tape-casted zirconia-toughened alumina composite thick films reinforced with multiwalled carbon nanotubes, *J. comps. mater*, 54(2019), 2353-2363.
- 17- P. Safarzadeh Kermani, M. Ghatee, A. Yazdani, Synthesis and characterization of barium aluminosilicate glass as the sealant for solid oxide fuel cell application, *Adv. ceram. prog.*, (2020), in press.

5- Conference paper

- 1- M. Ghatee, M.H. Shariat, J.T.S. Irvine, Investigation of electrical and mechanical properties of composite samples with core/shell structure prepared through net shape, presented in : *Electroceramics XI conference* , 31st August - 4th September 2008, Manchester, UK
- 2- M. Ghatee, M.H. Shariat, J.T.S. Irvine, Investigation of Electrical and Mechanical Properties of Tetragonal/Cubic Composite Electrolytes Prepared by Impregnation of 8YSZ with Zirconia Solution to be presented in *216th ECS Meeting*, October 4-9, 2009, Vienna, Austria.

3- Mojtaba Ghatee, Seyed Hadi Ghaderi and Omid Sam Dalir, Preparation and characterization of alumina/3YSZ nanocomposite doped with alumina-coated multi-wall carbon nanotubes, UFGNSM 2013, Tehran, Iran

4- Mojtaba Ghatee, Omid Sam Dalir, M Zamani, Manufacturing of Alumina/Zirconia composites by polymer impregnation method, 3rd International Conference on Composites: Characterization, Fabrication and Application (CCFA-2), 2012, Tehran, Iran

6-Research project

1- The manufacturing of zirconia based thin film by tape casting method.

2- The manufacturing of micro-tubular solid oxide fuel cells by extrusion method

3- The manufacturing of zirconia based oxygen sensor by ceramic injection molding.

4- The manufacturing and characterization of button like Solid oxide fuel cell by powder compaction method.