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Professor

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Department of Metallurgical and Materials Engineering

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PERSONAL

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| Date of Birth | 1971 |
| Place of Birth | South Korea |

EDUCATION

| | |
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| 2001-2008 | Middle East Technical University, Metallurgical and Materials Engineering, Ph.D. |
| 1993-1995 | Hanyang University, Inorganic Materials Engineering, M.S. (South Korea) |
| 1989-1993 | Hanyang University, Inorganic Materials Engineering, B.S. (South Korea) |

ACADEMIC POSITIONS

| | |
|------------------------|---|
| 01/2019- | Professor, Department of Metallurgical and Materials, Atılım University, Turkey |
| 02/2013-12/2018 | Associate Professor, Department of Metallurgical and Materials, Atılım University, Turkey |
| 02/2013-09/2008 | Assistant Professor, Department of Metallurgical and Materials, Atılım University, Turkey |

ADMINISTRATIVE DUTIES

| | |
|------------------------|--|
| 02/1995-03/1995 | Research Assistant, Hanyang University |
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HONORS&AWARDS

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|----------|---|
| 1 | Co-supervisor of METU Best Thesis Award Winner, 2016-2017 Academic Year |
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RESEARCH INTERESTS

| | |
|----------|---|
| 1 | Photocatalytic Titanium dioxide(TiO ₂) Ceramics |
| 2 | Dye-sensitized solar cells |
| 3 | Zirconia dental ceramics |
| 4 | Glass-ceramics |
| 5 | Bioceramics |
| 6 | Ultra-High temperature ceramics |
| 7 | Cordierite ceramic substrates |

PROFESSIONAL SERVICE

| | |
|---|---|
| 1 | Member, Association des Scientifiques Coréens en France (ASCoF) |
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PUBLICATIONS

| | |
|----|--|
| 1 | Asmae Bouziani, Jongee Park, Abdullah Ozturk, Synthesis of α -Fe ₂ O ₃ /TiO ₂ heterogeneous composites by the sol-gel process and their photocatalytic activity, Journal of Photochemistry and Photobiology A: Chemistry, 400, 112718, 2020 |
| 2 | Pelin Gündoğmuş, Jongee Park, Abdullah Öztürk, Preparation and photocatalytic activity of g-C ₃ N ₄ /TiO ₂ heterojunctions under solar light illumination, Ceramics International, 46(13), 21431-21438, 2020 |
| 3 | Sung Min So, Woo Hyuk Choi, Kyoung Hun Kim, Joo Seok Park, Min Suk Kim, Jongee Park, Yun-Soo Lim, Hyung Sun Kim, Mechanical properties of B ₄ C–SiC composites fabricated by hot-press sintering, Ceramics International, 46(7), 9575-9581, 2020 |
| 4 | Sung Min So, Hee Woong Hwang, Sam Heang Yi, Joo Seok Park, Kwang Ho Lee, Jongee Park, Sung Gap Lee, Mechanical properties and electrical resistivity of SiC-TiC composites with nitrate sintering additives, Journal of Ceramic Processing Research, 21(S1), s16-s22, 2020 |
| 5 | Nursev Erdogan, Asmae Bouziani, Jongee Park, Matej Micusik, Soo Young Kim, Eva Majkova, Maria Omastova, Abdullah Ozturk, Synthesis and enhanced photocatalytic activity of nitrogen-doped triphasic TiO ₂ nanoparticles, Journal of Photochemistry & Photobiology A: Chemistry, 377, 92-100, 2019 |
| 6 | Nursev Erdogan, Jongee Park, Woohyuk Choi, Soo Young Kim, and Abdullah Ozturk, Alkaline Hydrothermal Synthesis, Characterization, and Photocatalytic Activity of TiO ₂ Nanostructures: The Effect of Initial TiO ₂ Phase, Journal of Nanoscience and Nanotechnology, 19(11), 1511-1519, 2019 |
| 7 | Hanggara Sudrajat, Sri Hartuti, Jongee Park, A newly constructed photoactive system, Fe(III)-C/N-Bi ₂ O ₃ , for efficient visible light photocatalysis, Journal of Alloys and Compounds, 748, 390-397, 2018 |
| 8 | Thang Phan Nguyen, Abdullah Ozturk, Jongee Park, Woonbae Sohn, Ho Won Jang, and Soo Young Kim, Facile synthesis of CsPbBr ₃ /PbSe composite clusters, Science and Technology of Advanced Materials, 19, 10-17, 2018 |
| 9 | Melis Kaplan, Jongee Park, Soo Young Kim, Abdullah Ozturk, Production and properties of tooth-colored yttria stabilized zirconia ceramics for dental applications, Ceramics International, 44, 2413–2418, 2018 |
| 10 | Q. V. Le, J. W. Shin, J.-H. Jung, J. Park, A. Ozturk, and Soo Young Kim, Control of the crystal growth shape in CH ₃ NH ₃ PbBr ₃ perovskite materials, Journal of Nanoscience and Nanotechnology, 17, 8169-8174, 2017 |
| 11 | J. H. Oh, S. Han, T.-Y. Kim, J. Park, A. Ozturk, and Soo Young Kim, Effects of graphene transfer and thermal annealing on anticorrosive properties of stainless steel, Journal of Nanoscience and Nanotechnology, 17, 7835-7842, 2017 |
| 12 | M. Park, T. P. Nguyen, K. S. Choi, J. Park, A. Ozturk, and Soo Young Kim, MoS ₂ -nanosheet/graphene-oxide composite hole injection layer in organic light-emitting diodes, Electronic Materials Letters, 13, 344-350, 2017 |
| 13 | Ozlem Agac, Melike Gozutok, Hilal Turkoglu Sasmazel, Abdullah Ozturk, Jongee Park, Mechanical and biological properties of Al ₂ O ₃ and TiO ₂ co-doped zirconia ceramics, Ceramics International, 43, 10434-10441, 2017 |
| 14 | Gürel Pekkan, Keriman Pekkan, Jongee Park, Abdullah Öztürk, A study on microstructural characterization of the interface between apatite-wollastonite based glass ceramic and feldspathic dental porcelain, Ceramics International, |

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| | 42, 19245-19249, 2016 |
| 15 | Nursev Bilgin, Jongee Park, Abdullah Öztürk, Synthesis and enhanced photocatalytic activity of molybdenum, iron, and nitrogen triple-doped titania nanopowders, <i>Ceramics International</i> , 42, 16766-16774, 2016 |
| 16 | Nursev Erdogan, Abdullah Ozturk, Jongee Park, Hydrothermal synthesis of 3D TiO ₂ nanostructures using nitric acid: Characterization and evolution mechanism, <i>Ceramics International</i> , 42, 5985-5994, 2016 |
| 17 | Lutfi Agartan, Derya Kapusuz, Jongee Park, Abdullah Ozturk, Effect of initial water content and calcination temperature on photocatalytic properties of TiO ₂ nanopowders synthesized by the sol-gel process, <i>Ceramics International</i> , 41, 12788-12797, 2015 |
| 18 | Derya Kapusuz, Y. Eren Kalay, Jongee Park, Abdullah Ozturk, Synthesis and characterization of hydrothermally grown potassium titanate nanowires, <i>Journal of Ceramic Processing Research</i> , 16(3), 291-297, 2015 |
| 19 | Derya Kapusuz, Jongee Park, Abdullah Ozturk, Sol-gel synthesis and photocatalytic activity of B and Zr co-doped TiO ₂ , <i>Journal of Physics and Chemistry of Solids</i> , 74, 1026-1031, 2013 |
| 20 | Basak Aysin, Abdullah Ozturk, Jongee Park, Silver-loaded TiO ₂ powders prepared through mechanical ball milling, <i>Ceramics International</i> , 39, 7119-7126, 2013 |
| 21 | Tolga Tokmakci, Abdullah Ozturk, Jongee Park, Boron and zirconium co-doped TiO ₂ powders prepared through mechanical ball milling, <i>Ceramics International</i> , 39, 5893-5899, 2013 |
| 22 | Jongee Park, Abdullah Ozturk, Bioactivity of Apatite-Wollastonite Glass-Ceramics Produced by Melting Casting, <i>Surface Review and Letters</i> , 20, 13500101-13500107, 2013 |
| 23 | K. Soysal, J. Park, S.H. You, D.W. Shin, W.T. Bae and A. Ozturk, Preparation and photocatalytic activity of apatite-precipitated TiO ₂ , <i>Journal of Ceramic Processing Research</i> , 12, 176-182, 2011 |
| 24 | Jongee Park, Photocatalytic activity of hydroxyapatite-precipitated potassium titanate whiskers, <i>Journal of Alloys and Compounds</i> , 492, L57-L60, 2010 |
| 25 | Jongee Park, Sang-hee Yoo, Dong-woo Shin, Abdullah Ozturk, Tribological behavior of alumina-added apatite-wollastonite glass-ceramics in simulated body fluid, <i>Materials Chemistry and Physics</i> , 124, 113-119, 2010 |
| 26 | Jongee Park, Gurel Pekkan, Abdullah Ozturk, Friction and wear behavior of selected dental ceramics, <i>Surface Review and Letters</i> , 16, 653-661, 2009 |
| 27 | Hye-Yeon Chun, Sam-Sik Park, Sang-Hee You, Gi-Hyeon Kang, Won-Tae Bae, Kwang-Wook Kim, Jong-Ee Park, Abdullah Ozturk, Dong-Woo Shin, Preparation of a transparent hydrophilic TiO ₂ thin film photocatalyst, <i>Journal of Ceramic Processing Research</i> , 10, 219-223, 2009 |
| 28 | Jong-Ee Park, Abdullah Öztürk, Sang-Hee You, Sam-Sik Park, Won-Tae Bae and Dong-Woo Shin, Effect of microstructure on the tribological properties of apatite-wollastonite glass ceramic, <i>Journal of Ceramic Processing Research</i> , 9, 230-233, 2008 |
| 29 | Jongee Park and Abdullah Ozturk, Effect of TiO ₂ addition on the crystallization and tribological properties of MgO-CaO-SiO ₂ -P ₂ O ₅ -F glasses, <i>Thermochimica Acta</i> , 470, 60-66, 2008 |
| 30 | Jongee Park and Abdullah Ozturk, Tribological Properties of MgO-CaO-SiO ₂ -P ₂ O ₅ -F Based Glass Ceramic for Dental Applications, <i>Materials Letters</i> , 61, 1916-1921, 2007 |

PROJECTS

| | |
|----|--|
| 1 | Project Leader, "Fabrication of B ₄ C-SiC Ceramic Composites by Hot press sintering", ADP 1920-02, 2019-2020 |
| 2 | Project Leader, "Manufacturing of sizable area and integrated dye-sensitized solar cells", Eurostars 2, 2015-2018 |
| 3 | Project Researcher, "Dye-sensitized solar cell based On Perovskite solid-state Electrolyte", 216M391, TÜBİTAK-EU-KONNECT, 12.2016-1.2018 |
| 4 | Project Leader, "Zirkonya Esaslı Seramik Diş Malzemelerin Üretimi ve Geliştirilmesi", KOSGEB, 2014-2016 |
| 5 | Project Leader, "Development and Fabrication of Cordierite Ceramic Backing Materials", ATILIM-BAP-B-1213-01, 2013-2015 |
| 6 | Project Leader, "TiO ₂ Tozlarından Boya-sentezli Güneş Enerjisi Pili Üretimi", KOSGEB, 2011-2013 |
| 7 | Project Leader, "Fotokatalitik ve Süreksiz Fiberle Güçlendirilmiş Dental Kompozitlerin Geliştirilmesi", TÜBİTAK:110M206, 2010-2012 |
| 8 | Project Leader, "Fabrication of Dye-sensitized Solar Cell by nano-sized TiO ₂ powders", ATILIM BAP-1011-02, 2011-2012 |
| 9 | Project Leader, "Preparation of visible-light responsive B-Zr-codoped photocatalytic TiO ₂ ", BOREN:2010.Ç0275, 2010-2011 |
| 10 | Project Leader, "Production of high efficiency photocatalytic TiO ₂ powder by mechanical ball milling", ATILIM BAP:2010-4, 2010-2011 |
| 11 | Project Researcher, "Production of nano-size titania sol and highly efficient photocatalytic TiO ₂ powder by mechanical ball milling", TÜBİTAK:109M048, 2010-2012 |
| 12 | Project Researcher, "Yapay Vücut Sıvısında Titanium Dioksit Tozlarının Üzerinde Apatit Oluşturulması", TÜBİTAK:106M531(G.Kore KRF ile ortak destek), 2007-2008 |
| 13 | Project Researcher, "Apatit-wollastonit Kompozit Kemik Seramiklerin Üretimi ve Karakterizasyonu", TÜBİTAK:105M400, 2006-2008 |

PATENTS

| | |
|---|---|
| 1 | Jongee Park, Abdullah Öztürk, Mert Özcan Öztürk, Yiğit Cansın Öztürk, Özlem Ağaç, "Production of zirconia dental ceramic materials", 2015/17037 |
| 2 | Jongee Park, "Production of method of titania paste", 2013/03296 |
| 3 | Jongee Park, Mert Özcan Öztürk, Yiğit Cansın Öztürk, "Güneş enerjisi ile çalışan oyuncak", TR 2013 05227 Y (faydalı model) |
| 4 | Sungho Park, Wonjae Han, Jongee Park, "Method of Processing Potassium Titanate Fiber", KOREA-0156676, 1998 |

CONFERENCE PRESENTATIONS

| | |
|---|---|
| 1 | Nursev Erdogan, Göksel Durukaya, Jongee Park, Abdullah Ozturk, "Synthesis and Characterization of Nanoribbons Synthesized by Hydrothermal Process", 4th International Conference on Advanced Electromaterials (ICAIE 2017), 21-24 Nov. 2017, Jeju, South Korea. |
| 2 | Nursev Erdoğan, Jongee Park, Abdullah Öztürk, "Composite TiO ₂ Films for Single and Bi-layer Photoanodes of Dye- Sensitized Solar Cells", 13th Nanoscience & Nanotechnology Conference 22 - 25 Oct. 2017, Antalya, Turkey. |
| 3 | Sıtkı Can Akkuş, Abdullah Öztürk, Volkan Kalem, Jongee Park, Influence of TiO ₂ Content on the Photocatalytic Activity of TiO ₂ -B ₂ O ₃ Glasses Prepared by the Sol-Gel Process, 18th International Metallurgy and Materials Congress (IMMC 2016), 29 Sept-1 Oct. 2016, Istanbul Turkey. pp 40-43. |
| 4 | Melis Kaplan, Abdullah Öztürk, Jongee Park, Production and Characterization of Yttria Stabilized Zirconia Ceramic Blocks for Dental Applications, 18th International Metallurgy and Materials Congress (IMMC 2016), 29 Sept-1 Oct. 2016, Istanbul Turkey. pp. 324-327. |

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| 5 | Nursev Bilgin, Jongee Park, Abdullah Ozturk, "Synthesis of molybdenum and iron co-doped nano titania powders by hydrothermal method and their enhanced photocatalytic activities", New Trends in Solar Cells 2016, 19-22 April 2016 Brastislava Slovak Republic. Pp:84. |
| 6 | Jongin Hong, Jaekwon Cho, Sungjun Hong, Chi-Hwan Han, Kidong Lee, Kyungwon Kwak, Soo-Young Kim, Anders Sorensen, Laura Rodrigo Gutierrez, Jongee Park, Abdullah Öztürk, "Manufacturing of sizable area and integrated dye-sensitized solar cells (MOSAICS) supported by the Eurostars2 programme", New Trends in Solar Cells 2016, 19-22 April 2016 Brastislava Slovak Republic. Pp 66-67 |
| 7 | Gürel Pekkan, Keriman Pekkan, Jongee Park, Abdullah Ozturk, "Characterization of dental feldspatic porcelain and apatite-wollastonite ceramic interface", 9th Ceramic Congress 2015 with International Participation, 26-28 Nov 2015, Afyonkarahisar, Turkey |
| 8 | Jongee Park, "Effect of Titania and Alumina Addition on Mechanical Properties of Dental Zirconia Ceramics", 8th Euro-Korean Conference on Science and Technology, 22-24 July 2015, Strasbourg France |
| 9 | Ozlem Agac, Abdullah Ozturk, Jongee Park, "Influence of TiO ₂ and Al ₂ O ₃ Addition on Mechanical Properties of Dental Zirconia", Nanotech France 2015, 15-17 June 2015 Paris France. |
| 10 | Derya Kapusuz, Jongee Park, Abdullah Öztürk, "Photocatalytic Properties of Potassium Titanate Whiskers synthesized by Sol-Gel Process", 17th International Metallurgy and Materials Congress, 11-13 September 2014, Istanbul Turkey |
| 11 | Lütfi Ağartan, Derya Kapusuz, Jongee Park, Abdullah Öztürk, "Photocatalytic Properties of TiO ₂ Powders Synthesized by Sol-Gel process using different Water/Ti-precursor Ratio", 17th International Metallurgy and Materials Congress, 11-13 September 2014, Istanbul Turkey |
| 12 | Nursev Bilgin, Abdullah Öztürk, Jongee Park, "Synthesis of TiO ₂ and Titanate Nanopowders in Various Morphologies via Hydrothermal Method", 17th International Metallurgy and Materials Congress, 11-13 September 2014, Istanbul Turkey |
| 13 | Özlem Ağaç, Abdullah Öztürk, Jongee Park, "Effects of Titania and Sintering Temperature on Microstructure of Dental Zirconia", 7th International Powder Metallurgy Conference and Exhibition, 24-28 June 2014, Ankara, Turkey |
| 14 | Meriç Keser, Abdullah Öztürk, Jongee Park, "Effect of Li ₂ O/Bi ₂ O ₃ contents on sintering and crystallization behaviours of MgO-Al ₂ O ₃ -SiO ₂ system, 7th International Powder Metallurgy Conference and Exhibition, 24-28 June 2014, Ankara, Turkey |
| 15 | Çağlar Ekşi, Abdullah Öztürk, Jongee Park, "Production of Cordierite Ceramics from Kaolin, Talc, Magnesia and Quartz", 7th International Powder Metallurgy Conference and Exhibition, 24-28 June 2014, Ankara, Turkey |
| 16 | Lütfi Ağartan, Jongee Park, Abdullah Ozturk, "Effect of Water/Tetraethylorthotitanate Ratio on the morphology of Sol-Gel Derived TiO ₂ Powder and its photocatalytic activity", TMS 2014 143rd Annual Meeting & Exhibition, 16-20 February 2014, San Diego, California, USA |
| 17 | Nursev Bilgin, Jongee Park, Abdullah Ozturk, "Influence of Particle Size of TiO ₂ Powder on the Energy Conversion Efficiency of a Dye-Sensitized Solar Cell", Advanced Materials Research, Vol. 650 (2013), pp: 39-43. |
| 18 | Tugce Oztas, Jongee Park, Abdullah Ozturk, "Production of Highly Efficient Photocatalytic TiO ₂ Powders by Mechanical Ball Milling", Advanced Materials Research, Vol. 650 (2013), pp 44-48. |
| 19 | C. Vakifahmetoglu, J. Park, F. Korkusuz, A. Ozturk, M. Timucin, "Production and Properties of Apatite-Wollastonite Ceramics for Biomedical Applications", Intercceram, Vol.58(2-3) (2009), pp:86-90. |
| 20 | N. Bilgin, J. Park, A. Ozturk, "Effect of Porosity on the Efficiency of DSSC |

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| | Produced by Using Nano-Size TiO ₂ Powders”, 37th International Conference & Exposition on Advanced Ceramics & Composites (ICACC), 27 Jan. – 1 Feb. 2013, Florida, USA. |
| 21 | D.Kapusuz, J. Park, A. Ozturk, “Production of Potassium Titanate Whisker Reinforced Dental Composites”, 37th International Conference & Exposition on Advanced Ceramics & Composites (ICACC), 27 Jan.- 1 Feb. 2013, Florida, USA. |
| 22 | Nursev Bilgin, Jongee Park, Abdullah Ozturk, “Influence of Particle Size of TiO ₂ Powder on the Energy Conversion Efficiency of a Dye-Sensitized Solar Cell”, International Conference on Advances in Materials Science and Engineering, Dec. 2012, Seoul Korea. |
| 23 | Tugce Oztas, Jongee Park, Abdullah Ozturk, “Production of Highly Efficient Photocatalytic TiO ₂ Powders by Mechanical Ball Milling”, International Conference on Advances in Materials Science and Engineering, 9-10 Dec. 2012, Seoul Korea. |
| 24 | T. Tolga, A. Ozturk, J. Park, “Preparation of Boron-Zirconium Co-doped TiO ₂ ”, 8th International Conference on Nanoscience and Nanotechnologies, July 2011, Thessaloniki, Greece. |
| 25 | D.Kapusuz, J. Park, A. Ozturk, “Sol-gel Synthesis of B and Zr co-doped Titania Photocatalysts” 17th International Symposium on Boron, Borides and Related Materials, 11-17. Sep. 2011, İstanbul, Turkey. |
| 26 | Derya Kapusuz, Jongee Park, Abdullah Ozturk, “Influence of Boron and/or Zirconium Doping on Morphology and Optical Properties of Titania, 3rd International Conference (NanoCon), Sep. 2011, Brno, Czech Republic.81-87 |
| 27 | Başak Aysin, Jongee Park, Abdullah Ozturk, “Production of Silver Loaded Photocatalytic TiO ₂ Powders by Ball Mill, 3rd International Conference (NanoCon), Sep. 2011, Brno, Czech Republic.521-526 |
| 28 | Başak Aysin, Esra Çorapçı, Jongee Park, Abdullah Öztürk, “Mekanik Bilyalı Öğütmeyle Yüksek Etkinlikte Fotokatalitik TiO ₂ Tozunun Hazırlanması”, 15th International Metallurgy & Materials Congress, Nov. 2010, İstanbul, Turkey |
| 29 | Jongee Park, Abdullah Ozturk, “Wear Properties of Apatite-Wollastonite Glass Ceramics Produced by Powder Packing Process”, 5th International Powder Metallurgy Conference, 8-12 Oct. 2008, Ankara, Turkey. |

CITATIONS

| | |
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| Sum of times cited without self-citations (ISI Web of Science): | 330 |
| H-index (ISI Web of Science): | 11 |

COURSES GIVEN

| | |
|---|---|
| 1 | MATE 207 Introduction to Materials Science and Engineering |
| 2 | MATE 208 Introduction to Materials Science and Engineering for Mechatronics |
| 3 | MATE 209 Physics of Materials |
| 4 | MATE 311 Ceramics and Refractory Materials |
| 5 | MATE 320 Engineering Materials |
| 6 | MATE 474 Processing of Ceramic Materials |

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| 7 | MATE 540 Advanced Ceramic Science |
| 8 | MATE 541 Advanced Glass Science and Technology |

THESES SUPERVISED

| | |
|---|---|
| 1 | PhD Thesis, Hydrothermal synthesis of TiO ₂ nanostructures in various morphologies for the production for the dye sensitized solar cells, 2017 |
| 2 | PhD Thesis, Production of potassium titanate whisker reinforced polymer composites for dental applications, 2016 |
| 3 | MS Thesis, Preparation and Characterization of Injectable Poly(Methyl Methacrylate)(PMMA)/Zirconia Composites, 2020 |
| 4 | MS Thesis, Synthesis of g-C ₃ N ₄ /TiO ₂ Heterojunction Composites with Enhanced Solar Light Photocatalytic Activity, 2020 |
| 5 | MS Thesis, Synthesis of nano TiO ₂ for water purification, 2018 |
| 6 | MS Thesis, Mechanical and biological properties of alumina and titania co-doped zirconia ceramics, 2017 |
| 7 | MS Thesis, Production and characterization of Ytria stabilized zirconia ceramic blocks for dental applications, 2017 |
| 8 | MS Thesis, Production of Photocatalytic TiO ₂ Powder by Mechanical Ball Milling, 2013 |
| 9 | MS Thesis, Preparation of Boron/Zirconium co-doped photocatalytic TiO ₂ , 2013 |