



Jongee Park, Ph.D. Associate Professor

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### **PERSONAL**

| Date of Birth  | 10 Feb1971  |
|----------------|-------------|
| Place of Birth | South Korea |

### **EDUCATION**

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

### **ACADEMIC POSITIONS**

| 02/2013         | Associate Professor, Department of Metallurgical and Materials,<br>Atilim University, Turkey |
|-----------------|--|
| 02/2013-09/2008 | Assistant Professor, Department of Metallurgical and Materials, Atilim University, Turkey    |

#### **ADMINISTRATIVE DUTIES**

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

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

# **RESEARCH INTERESTS**

| 1 | Photocatalytic Titanium dioxide(TiO2) Ceramics |
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| 2 | Dye-sensitized solar cells                     |
| 3 | Zirconia dental ceramics                       |
| 4 | Glass-ceramics                                 |
| 5 | Bioceramics                                    |
| 6 | High temperature ceramics                      |

### **PROFESSIONAL SERVICE**

| Member, Association des Scientifiques Coréens en France (ASCoF)   |  |
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# **PUBLICATIONS**

1

| PUBLICATIONS |  |
|--------------|--|
| 1            | Thang Phan Nguyen, Abdullah Ozturk, Jongee Park, Woonbae Sohn, Ho Won Jang, and Soo Young Kim, Facile synthesis of CsPbBr3/PbSe composite clusters, Science and Technology of Advanced Materials, 19, 10-17, 2018  |
| 2            | 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   |
|              | Q. V. Le, J. W. Shin, JH. Jung, J. Park, A. Ozturk, and Soo Young Kim, Control of the crystal growth shape in CH3NH3PbBr3 perovskite materials, Journal of Nanoscience and Nanotechnology, 17, 8169-8174, 2018   |
| 3            | Q. V. Le, J. W. Shin, JH. Jung, J. Park, A. Ozturk, and Soo Young Kim, Control of the crystal growth shape in CH3NH3PbBr3 perovskite materials, Journal of Nanoscience and Nanotechnology, 17, 8169-8174, 2017   |
| 4            | J. H. Oh, S. Han, TY. 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                        |
| 5            | M. Park, T. P. Nguyen, K. S. Choi, J. Park, A. Ozturk, and Soo Young Kim, MoS2-nanosheet/graphene-oxide composite hole injection layer in organic light-emitting diodes, Electronic Materials Letters, 13, 344-350, 2017                                   |
| 6            | Ozlem Agac, Melike Gozutok, Hilal Turkoglu Sasmazel, Abdullah Ozturk, Jongee Park, Mechanical and biological properties of Al2O3 and TiO2 codoped zirconia ceramics, Ceramics International, 43, 10434-10441, 2017   |
| 7            | 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, 42, 19245-19249, 2016  |
| 8            | Nursev Bilgin, Jongee Park, Abdullah Öztürk, Synthesis and enhanced photocatalytic activity of molybdenum, iron, and nitrogen triple-doped titania nanopowders, Ceramics International, 42, 16766-16774, 2016  |
| 9            | Nursev Erdogan, Abdullah Ozturk, Jongee Park, Hydrothermal synthesis of 3D TiO2 nanostructures using nitric acid: Characterization and evolution mechanism, Ceramics International, 42, 5985-5994, 2016  |
| 10           | Lutfi Agartan, Derya Kapusuz, Jongee Park, Abdullah Ozturk, Effect of initial water content and calcination temperature on photocatalytic properties of TiO2 nanopowders synthesized by the sol–gel process, Ceramics Internatioanl, 41, 12788-12797, 2015 |
| 11           | Derya Kapusuz, Y. Eren Kalay, Jongee Park, Abdullah Ozturk, Synthesis and characterization of hydrothermally grown potassium titanate nanowires, Journal of Ceramic Processing Research, 16(3), 291-297, 2015  |
| 12           | Derya Kapusuz, Jongee Park, Abdullah Ozturk, Sol–gel synthesis and photocatalytic activity of B and Zr co-doped TiO2, Journal of Physics and Chemistry of Solids, 74, 1026-1031, 2013  |
| 13           | Basak Aysin, Abdullah Ozturk, Jongee Park, Silver-loaded TiO2 powders prepared through mechanical ball milling, Ceramics International, 39, 7119-7126, 2013  |
| 14           | Tolga Tokmakci, Abdullah Ozturk, Jongee Park, Boron and zirconium codoped TiO2 powders prepared through mechanical ball milling, Ceramics International, 39, 5893-5899, 2013   |
| 15           | Jongee Park, Abdullah Ozturk, Bioactivity of Apatite-Wollastonite Glass-Ceramics Produced by Melting Casting, Surface Review and Letters, 20, 13500101-13500107, 2013  |

| 16 | K. Soysal, J. Park, S.H. You, D.W. Shin, W.T. Bae and A. Ozturk, Preparation and photocatalytic activity of apatite-precipitated TiO2, Journal of Ceramic Processing Research, 12, 176-182, 2011  |
|----|---|
| 17 | Jongee Park, Photocatalytic activity of hydroxyapatite-precipitated potassium titanate whiskers, Journal of Alloys and Compounds, 492, L57-L60, 2010  |
| 18 | Jongee Park, Sang-hee Yoo, Dong-woo Shin, Abdullah Ozturk, Tribological behavior of alumina-added apatite-wollastonite glass-ceramics in simulated body fluid, Materials Chemistry and Physics, 124, 113-119, 2010  |
| 19 | Jongee Park, Gurel Pekkan, Abdullah Özturk, Friction and wear behavior of selected dental ceramics, Surface Review and Letters, 16, 653-661, 2009   |
| 20 | 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 TiO2 thin film photocatalyst, Journal of Ceramic Processing Research, 10, 219-223, 2009 |
| 21 | 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, Journal of Ceramic Processing Research, 9, 230-233, 2008                     |
| 22 | Jongee Park and Abdullah Ozturk, Effect of TiO2 addition on the crystallization and tribological properties of MgO-CaO-SiO2-P2O5-F glasses, Thermochimica Acta, 470, 60-66, 2008  |
| 23 | Jongee Park and Abdullah Ozturk, Tribological Properties of MgO-CaO-SiO2-P2O5-F Based Glass Ceramic for Dental Applications, Materials Letters, 61, 1916-1921, 2007   |

# **PROJECTS**

| INOSECIO |  |
|----------|--|
| 1        | Project Leader, "Manufacturing of sizable area and integrated dye-sensitized solar cells", Eurostars 2, 2015-2018  |
| 2        | Project Researcher, "Dye-sensitized solar cell based On Perovskite solid-<br>state Electrolyte", 216M391, TÜBİTAK-EU-KONNECT, 12.2016-1.2018                     |
| 3        | Project Leader, "Zirkonya Esaslı Seramik Diş Malzemelerin Üretimi ve Geliştirilmesi", KOSGEB, 2014-2016  |
| 4        | Project Leader, "Development and Fabrication of Cordierite Ceramic Backing Materials", ATILIM-BAP-B-1213-01, 2013–2015   |
| 5        | Project Leader, "TiO2 Tozlarından Boya-sentezli Güneş Enerjisi Pili Üretimi", KOSGEB, 2011–2013  |
| 6        | Project Leader, "Fotokatalitik ve Süreksiz Fiberle Güçlendirilmiş Dental Kompozitlerin Geliştirilmesi", TÜBİTAK:110M206, 2010–2012                               |
| 7        | Project Leader, "Fabrication of Dye-sensitized Solar Cell by nano-sized TiO2 powders", ATILIM BAP-1011-02, 2011–2012   |
| 8        | Project Leader, "Preparation of visible-light responsive B-Zr-codoped photocatalytic TiO2", BOREN:2010.Ç0275, 2010–2011  |
| 9        | Project Leader, "Production of high efficiency photocatalytic TiO2 powder by mechanical ball milling", ATILIM BAP:2010-4, 2010–2011                              |
| 10       | Project Researcher, "Production of nano-size titania sol and highly efficient photocatalytic TiO2 powder by mechanical ball milling", TÜBİTAK:109M048, 2010–2012 |
| 11       | Project Researcher, "Yapay Vücut Sıvısında Titanium Dioksit Tozlarının Üzerinde Apatit Oluşturulması", TÜBİTAK:106M531(G.Kore KRF ile ortak destek), 2007–2008   |
| 12       | 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 Casın 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**

| CONFERENCE PR | ESENTATIONS   |
|---------------|---|
| 1             | Nursev Erdogan, Göksel Durukaya, Jongee Park, Abdullah Ozturk, "Synthesis and Characterization of Nanoribbons Synthesized by Hydrothermal Process", 4th International Conference on Advanced Electromaterials (ICAE 2017), 21-24 Nov. 2017, Jeju, South Korea.  |
| 2             | Nursev Erdoğan, Jongee Park, Abdullah Öztürk, "Composite TiO2 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 TiO2 Content on the Photocatayltic Activity of TiO2-B2O3 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.  |
| 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,<br>Characterization of dental feldspatic porcelain and apatite-wollastonite<br>ceramic interface, 9th Ceramic Congress 2015 with International Participation,<br>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 TiO2 and Al2O3 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 Agartan, Derya Kapusus, Jongee Park, Abdullah Öztürk, "Photocatalytic Properties of TiO2 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 TiO2 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 Li2O/Bi2O3 contents on sintering and crystallization behaviours of MgO-Al2O3-SiO2 system, 7th International Powder Metallurgy Conference and Exhibition, 24-28 June 2014, Ankara, Turkey                            |
| 15 | Çağlar Ekşi, Abdullah Öztürk, Jongee Park, "Production of Cordierite<br>Ceramics from Kaolin, Talc, Magnesia and Quartz", 7th International Powder<br>Metallurgy Conference and Exhibition, 24-28 June 2014, Ankara, Turkey   |
| 16 | Lütfi Ağartan, Jongee Park, Abdullah Ozturk, "Effect of Water/Tetraehylorthotitanate Ratio on the morphology of Sol-Gel Derived TiO2 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 TiO2 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 TiO2 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", Interceram, Vol.58(2-3) (2009), pp:86-90.   |
| 20 | N. Bilgin, J. Park, A. Ozturk, "Effect of Porosity on the Efficiency of DSSC Produced by Using Nano-Size TiO2 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 TiO2 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 TiO2 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 TiO2", 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.  |

|    | Derya Kapusuz, Jongee Park, Abdullah Ozturk, "Influence of Boron and/or      |
|----|--|
| 26 | Zirconium Doping on Morphology and Optical Properties of Titania, 3rd        |
|    | International Conference (NanoCon), Sep. 2011, Brno, Czech Republic.81-87    |
|    | Başak Aysın, Jongee Park, Abdullah Ozturk, "Production of Silver Loaded      |
| 27 | Photocatalytic TiO2 Powders by Ball Mill, 3rd International Conference       |
|    | (NanoCon), Sep. 2011, Brno, Czech Republic.521-526                           |
|    | Başak Aysın, Esra Çorapçı, Jongee Park, Abdullah Öztürk, "Mekanik Bilyalı    |
| 28 | Öğütmeyle Yüksek Etkinlikte Fotokatalitik TiO2 Tozunun Hazırlanması, 15th    |
|    | International Metallurgy & Materials Congress, Nov. 2010, Istanbul, Turkey   |
|    | Jongee Park, Abdullah Ozturk, "Wear Properties of Apatite-Wollastonite Glass |
| 29 | Ceramics Produced by Powder Packing Process, 5th International Powder        |
|    | Metallurgy Conference, 8-12 Oct. 2008, Ankara, Turkey.                       |

### **CITATIONS**

| Sum of times cited without self-citations (ISI Web of Science): | 170 |
|---|-----|
| H-index (ISI Web of Science):                                   | 8   |

# **COURSES GIVEN**

| 1 | MATE 207 Introduction to Materials Science and Engineering                  |
|---|---|
| 2 | MATE 208 Introduction to Materials Science and Engineering for Mechatronics |
| 3 | MATE 311 Ceramics and Refractory Materials                                  |
| 4 | MATE 320 Engineering Materials  |
| 5 | MATE 474 Processing of Ceramic Materials                                    |
| 6 | MATE 540 Advanced Ceramic Science   |
| 7 | MATE 541 Advanced Glass Science and Technology                              |

# **THESES SUPERVISED**

| 1 | PhD Thesis, Hydrothermal synthesis of TiO2 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, Synthesis of nano TiO2 for water purification, 2018  |
| 4 | MS Thesis, Mechanical and biological properties of alumina and titania codoped zirconia ceramics, 2017  |
| 5 | MS Thesis, Production and characterization of Yttria stabilized zirconia ceramic blocks for dental applications, 2017                         |
| 6 | MS Thesis, Production of Photocatalytic TiO2 Powder by Mechanical Ball Milling, 2013  |
| 7 | MS Thesis, Preparation of Boron/Zirconium co-doped photocatalytic TiO2, 2013  |