

## Prof. BAHADIR TUNABOYLU

### Personal Information

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### Biography

Kaliforniya Üniversitesi elektronik ve bilgisayar mühendisliği- malzeme bilimi programında doktora yaptıktan sonra, silikon vadisinde ve Arizona'da 20 yıla yakın süreyle mikroçip ve nanoteknoloji, test sistemleri, mikroelektromekanik sistemler, nanomalzemeler, yeni üretim teknolojileri alanında ve ürün geliştirme programlarında çalıştı. Bu firmaların Arge bölümlerinde ve şirket yönetiminde bulundu. Yaptığı çalışmalarının sonucunda 23 adet ABD patenti aldı. Lawrence Livermore ve Sandia Labs-ulusal araştırma merkezlerinde nanoteknoloji alanında çalışmalarda bulundu. Intel, Samsung, Texas Instruments, Qualcomm, Toshiba, TRW gibi firmalarla ortak projelerde çalıştı. İstanbul Şehir Üniversitesi'ne 2010 yılında Endüstri Mühendisliği öğretim üyesi olarak katıldı. 2014-2016 yılları arasında TÜBİTAK Marmara Araştırma Merkezi Başkanlığı döneminde geliştirilen 18 ürünün ticarileşmesini sağlayarak ülke sanayicimize kazandırdı. Elektrikli araçlar, batarya - yakıt hücreleri, yenilenebilir enerji, akıllı sistemler, seramik-kompozit malzeme konularında projeler yürüttü. Marmara Üniversitesinde Malzeme Mühendisliği bölümünde Ağustos 2020'den itibaren profesör olarak görevine devam etmektedir.

Tübitak MAM, BİLGEM, Bilişim Vadisi ve Sabancı Üniversitesi SUNUM yönetim kurulu üyelikleri görevlerinde bulundu. BM ilişkili WAITRO Uluslararası Endüstriyel Araştırma Organizasyonları yönetim kurulu üyesi, Ortadoğu ve Kuzey Afrika bölge temsilcisi görevini 2016-2020 arasında yapmıştır. Halen Çevre Vakfı Yönetim Kurulu ve MEB ARGEMER Bilimsel Danışma Kurulu üyesidir. Marmara Üniversitesi'nde Inovasyon ve Teknoloji Transfer programlarını yönetmektedir.

### Education Information

Doctorate, University of California, San Diego, Faculty of Engineering, ECE- Dept of Electrical & Comp. Eng., United States Of America 1991 - 1997

Postgraduate, Alfred University, College of Engineering, Ceramic Engineering, United States Of America 1989 - 1991

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Metallurgical And Materials Engineering, Turkey 1983 - 1988

### Dissertations

Doctorate, Synthesis Deposition and Characterization of Ferroelectric Films for Electrooptic Devices, University of California, San Diego, Faculty of Engineering, 1997

Postgraduate, Sintering Microstructure and Mechanical Property Relationships in Silicon Nitride, Alfred University, Ceramic Engineering, 1991

### Research Areas

## RESEARCH AREAS

Material science and engineering

## Academic Titles / Tasks

Professor, Marmara University, Faculty of Engineering, Metallurgical And Material Engineering, 2020 - Continues

Associate Professor, Istanbul Sehir University, Faculty Of Engineering And Natural Sciences, Department Of Industrial Engineering, 2017 - 2019

Assistant Professor, Istanbul Sehir University, Faculty Of Engineering And Natural Sciences, Department Of Industrial Engineering, 2010 - 2012

## Academic and Administrative Experience

Head of Department, Istanbul Sehir University, Faculty Of Engineering And Natural Sciences, Department Of Industrial Engineering, 2017 - 2020

## Advising Theses

Tunaboylu B., Manufacturing process development for lanthanum hexaboride (LaB<sub>6</sub>) thin film filaments, Postgraduate, B.TOPRAK(Student), 2020

Tunaboylu B., Design and simulation of an additional cell balancing stage circuit, Postgraduate, A.BASHAR(Student), 2020

Tunaboylu B., The assessment of microfactory concept to manufacture new generation electric vehicles, Postgraduate, B.ALPTEKİN(Student), 2020

Tunaboylu B., Emerging transition from AC to DC powered homes, Postgraduate, F.SERRA(Student), 2020

Tunaboylu B., Performance and cost analysis of solar systems considering different PV and inverter models, Postgraduate, M.AL(Student), 2019

Tunaboylu B., Environmental and social sustainability Index (ESSI), Postgraduate, A.FAISAL(Student), 2018

Tunaboylu B., Humidity SAW sensors sensitivity enhancement via electrospaying of silver nanowires, Postgraduate, F.SAYAR(Student), 2017

Tunaboylu B., Water and carbon footprints of Turkish energy development plans until 2030, Postgraduate, M.ABDULLAH(Student), 2017

Tunaboylu B., Development of air-breathing polymer electrolyte membrane (PEM) fuel cell for small uav application, Postgraduate, N.UL(Student), 2015

Tunaboylu B., Characterization of a Li-ion battery based stand-alone a-Si photovoltaic system, Postgraduate, M.HAMID(Student), 2014

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Surface Modification of Reverse Osmosis Desalination Membranes with Zwitterionic Silane Compounds for Enhanced Organic Fouling Resistance**  
Erkoc-Ilter S., Saffarimiandoab F., Guclu S., Koseoglu-Imer D. Y. , TUNABOYLU B., Menciloglu Y., Koyuncu İ., ÜNAL S. INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.60, no.14, pp.5133-5144, 2021 (Journal Indexed in SCI)
- II. **A review on membrane fouling: membrane modification**  
Saffarimiandoab F., Yavuztürk Gül B., Tasdemir R. S. , Ilter S. E. , ÜNAL S., TUNABOYLU B., MENCELOĞLU Y. Z. , Koyuncu İ.  
DESALINATION AND WATER TREATMENT, vol.216, pp.47-70, 2021 (Journal Indexed in SCI)
- III. **Evaluation of biofouling behavior of zwitterionic silane coated reverse osmosis membranes fouled by marine bacteria**

- Saffarimiandoab F., Gul B. Y. , Erkoc-Ilter S., Guclu S., Unal S., Tunaboylu B., Menceloglu Y. Z. , Koyuncu İ.  
PROGRESS IN ORGANIC COATINGS, vol.134, pp.303-311, 2019 (Journal Indexed in SCI)
- IV. **Simulation and Experimental Tests of Ballistic Impact on Composite Laminate Armor**  
Soydan A. M. , Tunaboylu B., Elsabagh A. G. , Sari A. K. , Akdeniz R.  
ADVANCES IN MATERIALS SCIENCE AND ENGINEERING, vol.2018, 2018 (Journal Indexed in SCI)
- V. **Synthesis of CIS (CuInSe<sub>2</sub>) Based Materials for Solar Applications**  
Soydan A. M. , Yilmaz P., Tunaboylu B.  
JOURNAL OF CHEMISTRY, vol.2018, 2018 (Journal Indexed in SCI)
- VI. **Air-Cured Fiber-Cement Composite Mixtures with Different Types of Cellulose Fibers**  
Soydan A. M. , Sari A. K. , Duymaz B., Akdeniz R., Tunaboylu B.  
ADVANCES IN MATERIALS SCIENCE AND ENGINEERING, vol.2018, 2018 (Journal Indexed in SCI)
- VII. **Space transformer connector characterization for a wafer test system**  
Tunaboylu B.  
INFORMACIJE MIDEM-JOURNAL OF MICROELECTRONICS ELECTRONIC COMPONENTS AND MATERIALS, vol.47,  
no.4, pp.255-259, 2017 (Journal Indexed in SCI)
- VIII. **SAW Humidity Sensor Sensitivity Enhancement via Electrospraying of Silver Nanowires**  
Irani F. S. , Tunaboylu B.  
SENSORS, vol.16, no.12, 2016 (Journal Indexed in SCI)
- IX. **Power Delivery Performance of Probe Test Systems for Semiconductor Wafers**  
Tunaboylu B.  
IEEE DESIGN & TEST, vol.33, no.6, pp.72-76, 2016 (Journal Indexed in SCI)
- X. **Performance of Ni-alloy MEMS-probes coated with PdCo films in semiconductor wafer test**  
Tunaboylu B.  
INFORMACIJE MIDEM-JOURNAL OF MICROELECTRONICS ELECTRONIC COMPONENTS AND MATERIALS, vol.46,  
no.2, pp.82-92, 2016 (Journal Indexed in SCI)
- XI. **A predictive model for wafer probe burn phenomenon**  
Zafer B., Tunaboylu B.  
APPLIED THERMAL ENGINEERING, vol.98, pp.610-616, 2016 (Journal Indexed in SCI)
- XII. **Experimental characterization of wafer probe burn**  
Zafer B., Tunaboylu B.  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.24, no.5, pp.3513-3523, 2016  
(Journal Indexed in SCI)
- XIII. **Charactrization of a Li-ion battery based stand-alone a-Si photovoltaic system**  
Vishkasougheh M. H. , Tunaboylu B.  
APPLIED SURFACE SCIENCE, vol.318, pp.324-333, 2014 (Journal Indexed in SCI)
- XIV. **Electrical Characterization of Test Sockets With Novel Contactors**  
Tunaboylu B.  
IEEE TRANSACTIONS ON DEVICE AND MATERIALS RELIABILITY, vol.14, no.1, pp.580-582, 2014 (Journal Indexed  
in SCI)
- XV. **Simulation of high efficiency silicon solar cells with a hetero-junction microcrystalline intrinsic thin  
layer**  
Vishkasougheh M. H. , Tunaboylu B.  
ENERGY CONVERSION AND MANAGEMENT, vol.72, pp.141-146, 2013 (Journal Indexed in SCI)
- XVI. **Properties of Ceria Based Novel Anode Nanopowders Synthesized by Glycine-Nitrate Process**  
YILDIZ O., Soydan A. M. , Ata A., Tunaboylu B., Akin D., Ipcizade E. F.  
ACTA PHYSICA POLONICA A, vol.123, no.2, pp.432-435, 2013 (Journal Indexed in SCI)
- XVII. **Testing of Copper Pillar Bumps for Wafer Sort**  
Tunaboylu B.  
IEEE TRANSACTIONS ON COMPONENTS PACKAGING AND MANUFACTURING TECHNOLOGY, vol.2, no.6, pp.985-  
993, 2012 (Journal Indexed in SCI)
- XVIII. **Electrodeposition of multilayer NiMn beams for probes**

- Tunaboylu B.  
MATERIALS LETTERS, vol.70, pp.51-53, 2012 (Journal Indexed in SCI)
- XIX. **Characterisation of electroplated NiMn films for wafer probing**  
Tunaboylu B., Theppakuttai S.  
MICRO & NANO LETTERS, vol.7, no.1, pp.45-48, 2012 (Journal Indexed in SCI)
- XX. **Improved blades for RF testing at wafer**  
Tunaboylu B.  
ELECTRONICS LETTERS, vol.47, no.25, pp.1396-1397, 2011 (Journal Indexed in SCI)
- XXI. **Phase transformation and paired-plate precipitate formation in Pb<sub>0.91</sub>La<sub>0.09</sub>Zr<sub>0.65</sub>Ti<sub>0.35</sub>O<sub>3</sub> films grown on sapphire substrates**  
Tunaboylu B., Ozkan C., Ata A., Ring K., Esener S.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.5, pp.199-206, 2002 (Journal Indexed in SCI)
- XXII. **Precipitate splitting in Pb<sub>0.91</sub>La<sub>0.09</sub>Zr<sub>0.65</sub>Ti<sub>0.35</sub>O<sub>3</sub> films**  
Tunaboylu B., Ring K., Esener S., Ozkan C., Ata A.  
JOURNAL OF MATERIALS RESEARCH, vol.16, no.10, pp.2763-2766, 2001 (Journal Indexed in SCI)
- XXIII. **Synthesis and properties of KTN films by sol-gel deposition and RF-magnetron sputtering**  
Tunaboylu B., Sashital S., Harvey P., Esener S.  
FERROELECTRICS LETTERS SECTION, vol.28, pp.75-84, 2001 (Journal Indexed in SCI)
- XXIV. **Phase transformation kinetics in Pb<sub>0.91</sub>La<sub>0.09</sub>Zr<sub>0.65</sub>Ti<sub>0.35</sub>O<sub>3</sub> films**  
Tunaboylu B., McKittrick J., Esener S.  
JOURNAL OF MATERIALS SCIENCE LETTERS, vol.17, no.17, pp.1445-1447, 1998 (Journal Indexed in SCI)
- XXV. **Characterization of dielectric and electro-optic properties of PLZT 9/65/35 films on sapphire for electro-optic applications**  
Tunaboylu B., Harvey P., Esener S.  
IEEE TRANSACTIONS ON ULTRASONICS FERROELECTRICS AND FREQUENCY CONTROL, vol.45, no.4, pp.1105-1112, 1998 (Journal Indexed in SCI)
- XXVI. **Microstructure of magnetron sputtered PLZT thin films on sapphire**  
Tunaboylu B., Harvey P., Esener S.  
INTEGRATED FERROELECTRICS, vol.19, pp.11-32, 1998 (Journal Indexed in SCI)
- XXVII. **PRESSURELESS SINTERING AND CHARACTERIZATION OF Si<sub>3</sub>N<sub>4</sub> CONTAINING La<sub>2</sub>O<sub>3</sub>-SRO AS AN ADDITIVE**  
TUNABOYLU B., VARNER J.  
JOURNAL OF MATERIALS SCIENCE LETTERS, vol.14, no.17, pp.1246-1249, 1995 (Journal Indexed in SCI)
- XXVIII. **DYNAMIC COMPACTION OF Al<sub>2</sub>O<sub>3</sub>-ZrO<sub>2</sub> COMPOSITIONS**  
TUNABOYLU B., MCKITTRICK J., NELLIS W., NUTT S.  
JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.77, no.6, pp.1605-1612, 1994 (Journal Indexed in SCI)
- XXIX. **MICROWAVE AND CONVENTIONAL SINTERING OF RAPIDLY SOLIDIFIED Al<sub>2</sub>O<sub>3</sub>-ZrO<sub>2</sub> POWDERS**  
MCKITTRICK J., TUNABOYLU B., KATZ J.  
JOURNAL OF MATERIALS SCIENCE, vol.29, no.8, pp.2119-2125, 1994 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **ENVIRONMENTAL AND SOCIAL SUSTAINABILITY INDEX (ESSI)**  
Faisal A., TUNABOYLU B., Koyuncu I.  
PRESENT ENVIRONMENT AND SUSTAINABLE DEVELOPMENT, vol.14, no.1, pp.325-342, 2020 (Journal Indexed in ESCI)
- II. **Recent progresses on solution-processed silver nanowire based transparent conducting electrodes for organic solar cells**  
Basarir F., Irani F. S., Kosemen A., Camic B. T., Oytun F., Tunaboylu B., Shin H. J., Nam K. Y., Choi H.  
MATERIALS TODAY CHEMISTRY, vol.3, pp.60-72, 2017 (Journal Indexed in ESCI)

- III. **Experimental determination of optimal clamping torque for AB-PEM fuel cell**  
Ul Hassan N., Kilic M., Okumus E., Tunaboylu B., Soydan A. M.  
JOURNAL OF ELECTROCHEMICAL SCIENCE AND ENGINEERING, vol.6, no.1, pp.9-16, 2016 (Journal Indexed in ESCI)

## Books & Book Chapters

- I. **Blockchain Technology for Supply Chain Management**  
Tunaboylu B., Zaim S., Dursun T., Hasekioğlu O., Birinci F., Alptekin B., Sertkaya İ.  
in: Industrial Engineering in the Internet-of-Things World, Lecture Notes in Management and Industrial Engineering,, F Çalışır, Editor, Springer Nature, Zürich, pp.203-217, 2022
- II. **Transition from AC to DC Powered Homes**  
Tunaboylu B., Zaim S., Erkmén T., Çiftçi F. S.  
in: Industrial Engineering in the Internet-of-Things World, F Çalışır, Editor, Springer Nature, Zürich, pp.349-359, 2021
- III. **A Children Retail Company's e-Commerce Warehouse Optimization**  
Tunaboylu B., Zaim S., Bulut M., Altuntaş B., Turhan M.  
in: Industrial Engineering in the Internet-of-Things World , F Çalışır, Editor, Springer Nature, Zürich, pp.303-316, 2021
- IV. **A Review on Cell Balancing Techniques and Their Complexity Levels**  
Faisal A., TUNABOYLU B.  
in: Industrial Engineering in the Internet-of-Things World, Çalışır, Fethi, Editor, Springer Nature Switzerland AG, Cham, pp.241-257, 2021
- V. **Development of MEMS for Wafer Test Systems**  
Tunaboylu B., Soydan A. M.  
in: MEMS Sensors - Design & Application, Siva Yellampali, Editor, IntechOpen, London, pp.189-206, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **Applications and Expectations of Fuel Cells and Lithium Ion Batteries**  
Tunaboylu B., Ateş M. N. , Zengin F., Okumuş E.  
Digitizing Production Systems, LNME, Antalya, Turkey, 7 - 09 October 2021, pp.91-106
- II. **Manufacturing Process Development for Thin-Film Filaments as a New Product**  
TUNABOYLU B., TOPRAK B., ZAİM S., BİNARK A. K. , ÖZTÜRK O.  
The International Symposium for Production Research, Turkey, 25 September 2020
- III. **Improving Business Processes of Human Resources Departments in Turkish Technic Inc.**  
Tunaboylu B.  
The International Symposium for Production Research, ISPR 2020: Digital Conversion on the Way to Industry 4.0 , Antalya, Turkey, 24 - 27 September 2020, pp.493-503
- IV. **Smart Manufacturing of Electric Vehicles**  
Tunaboylu B.  
The International Symposium for Production Research, ISPR 2020: Digital Conversion on the Way to Industry 4.0 , Antalya, Turkey, 24 - 27 September 2020, pp.767-773
- V. **Transition From AC to DC Powered Homes**  
ÇİFTÇİ F. S. , TUNABOYLU B., ERKMEN T., ZAİM S.  
VII. GLOBAL CONFERENCE ON ENGINEERING TECHNOLOGY MANAGEMENT, Turkey, 14 - 15 August 2020
- VI. **Energy performance and cost assessment of different PV systems for a building-integrated application**  
TUNABOYLU B., AlBattal M.

Proc. 5th International Conference on Power Generation Systems and Renewable Energy Technologies (PGSRET), 26 - 27 August 2019

**VII. Development and technological steps for realization of AB-PEM Fuel cell - a step towards clean & sustainable energy solutions**

Ul Hassan N., Tunaboyle B., Yasin M.

4th International Conference on Power Generation Systems and Renewable Energy Technologies (PGSRET), Islamabad, Pakistan, 10 - 12 September 2018, pp.104-109

**VIII. Perspectives of methods of laser monitoring of atmosphere and sea surface**

Pashayev A., Tunaboyle B., Usta M., Sadixov I., Allahverdiyev K.

19th International Conference and School on Quantum Electronics (ICSQE) - Laser Physics and Applications, Sozopol, Bulgaria, 26 - 30 September 2016, vol.10226

**IX. Linear and NLO spectroscopy of GaSe and InSe nanoparticles formed via laser ablation**

Pashayev A., Tunaboyle B., Allahverdiyev K., Salayev E., Tagiyev B.

International Conference on Atomic and Molecular Pulsed Lasers XII (AMPL), Tomsk, Russia, 13 - 18 September 2015, vol.9810

**X. Effect of laminar air flow on probe burn for spring probe**

Zafer B., Tunaboyle B.

15th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, (EuroSimE), Ghent, Belgium, 7 - 09 April 2014

**XI. Wafer test probe burn modeling and characterization**

Zafer B., Vishkasougheh M. H., Tunaboyle B.

14th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems (EuroSimE), Wroclaw, Poland, 14 - 17 April 2013

**XII. Ferroelectric PLZT thin films deposited by RF triode magnetron sputtering for spatial light modulators**

Tunaboyle B., Harvey P., Deng F., Fan C., Esener S.

10th IEEE International Symposium on Applications of Ferroelectrics (ISAF 96), New Jersey, United States Of America, 18 - 21 August 1996, pp.675-678

**XIII. COMPACTION OF SUBMICRON AND NANOCRYSTALLINE AL<sub>2</sub>O<sub>3</sub>-ZRO<sub>2</sub> CERAMICS**

MCKITTRICK J., TUNABOYLE B., KATZ J.

NATO ADVANCED STUDY INST ON MECHANICAL PROPERTIES AND DEFORMATION BEHAVIOR OF MATERIALS HAVING ULTRA-FINE MICROSTRUCTURES, Porto Novo, Benin, 28 June - 10 July 1992, vol.233, pp.559-564

**XIV. AL<sub>2</sub>O<sub>3</sub>-ZRO<sub>2</sub> CERAMICS WITH SUBMICRON MICROSTRUCTURES OBTAINED THROUGH MICROWAVE SINTERING, PLASMA SINTERING AND SHOCK COMPACTION**

MCKITTRICK J., TUNABOYLE B., KATZ J., NELLIS W.

SYMP ON SUBMICRON MULTIPHASE MATERIALS, AT THE 1992 SPRING MEETING OF THE MATERIALS RESEARCH SOC, San-Francisco, Costa Rica, 28 - 30 April 1992, vol.274, pp.149-154

## Supported Projects

Tunaboyle B., TUBITAK Project, 1513 MÜ Teknoloji Transfer Programı, 2021 - 2025

Tunaboyle B., Tekiner Moğulkoç H., Ulukuş M. Y., TUBITAK Project, Elektrikli Araçların Elektrik Üretim Genisletme Problemine Entegrasyonu Ve Optimum Araç Penetrasyon Seviyelerinin Belirlenmesi, 2021 - 2024

Tunaboyle B., BOREN, Ulusal Bor Araştırma Enstitüsü Projesi, Manufacturing of Boron-based Filament, 2020 - 2022

Tunaboyle B., Erol E., TUBITAK Project, Proje: SAYEM- İDA OTO-SEVK Projesi, İnsansız Deniz Araçlarının Otonom Çalışabilmesi İçin Ölçüm, Test ve Seyrüsefer Amaçlı Kontrol Birimi Geliştirme Yol Haritası, 2019 - 2020

Tunaboyle B., Gunay D. E., TUBITAK Project, Proje: 113M580 Biyo-Uygulamalar İçin Seramik Kompozit Malzemelerin Geliştirilmesi, 2015 - 2018

Tunaboyle B., Kayıhan A., TUBITAK Project, 113G001 E Sınıfı 130MW Bir Gaz Türbininde 1 Set Rotor ve 1 Set Stator 3. Kademe Türbin Kanadının Hassas Döküm Yöntemi ile Geliştirilmesi ve Üretimi, 2015 - 2018

Tunaboğlu B., Energy and Natural Resources Ministry, HES - Obruk/Keban Barajları Danışmanlık Projesi (Hes Obruk-Keban Barajı Francis Türbini Rehabilitasyonu), 2014 - 2017

Tunaboğlu B., TÜBİTAK Project, Elektrikli Araç Geliştirilmesi, 2015 - 2016

Tunaboğlu B., Project Supported by Other Official Institutions, Proje: 5152702 Elektrikli Araç Geliştirilmesi, 2015 - 2016

Tunaboğlu B., FP7 Project, International Reintegration Grant IRG Grant 271545, 2011 - 2016

Tunaboğlu B., Ata A., TÜBİTAK - AB COST Project, Proje No: 112M729, TOLPE: Yeşil Ulaşımında Kullanılacak Li-Polimer Bataryalarda Verimlilik Artırma Amaçlı Isıl Yönetim, 2012 - 2014

Tunaboğlu B., Project Supported by Private Organizations in Other Countries, EDB Grant S07588582 and SV Probe Pte Ltd Singapore, 2008 - 2010

Tunaboğlu B., Project Supported by Private Organizations in Other Countries, advanced MEMS probe card development projects in Kulicke and Soffa Industries and SV Probe Inc ABD, 2003 - 2006

## Patent

Tunaboğlu B., Modular space transformer for fine pitch vertical probing applications, Patent, CHAPTER H Electricity, The Invention Registration Number: 8430676 , Initial Registration, 2013

Tunaboğlu B., Approach for assembling and repairing probe assemblies using laser welding, Patent, CHAPTER H Electricity, The Invention Registration Number: US 8299394 , Initial Registration, 2012

Tunaboğlu B., Probe with stacked substrate, Patent, CHAPTER H Electricity, The Invention Registration Number: US 7898276 , Initial Registration, 2011

Tunaboğlu B., probe card assembly with interposer probes, Patent, CHAPTER H Electricity, The Invention Registration Number: US8058887 , Initial Registration, 2011

Tunaboğlu B., US7675302 Probe card assembly and method of attaching probes, Patent, CHAPTER H Electricity, The Invention Registration Number: US7675302 , Initial Registration, 2010

Tunaboğlu B., Low Force Interconnects for Probe Cards, Patent, CHAPTER H Electricity, The Invention Registration Number: 7733104 , Initial Registration, 2010

Tunaboğlu B., Approach for cantilever probes, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: US7721430 , Initial Registration, 2010

Tunaboğlu B., Probe test card with flexible interconnect structure, Patent, CHAPTER H Electricity, The Invention Recourse Number: 12/353879 , Initial Registration, 2010

Tunaboğlu B., 7495459 - Probe card assembly with a dielectric strip structure coupled to a side of at least a portion of the probes, Patent, CHAPTER H Electricity, The Invention Registration Number: 7495459 , Initial Registration, 2009

Tunaboğlu B., Beam assembly method for large are array multibeam dut probe cards, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: US7637006 , Initial Registration, 2009

Tunaboğlu B., Probe tip plating, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: US7638028 , Initial Registration, 2009

Tunaboğlu B., Automated probe card planarization and alignment methods and tools, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: US7583098 , Initial Registration, 2009

Tunaboğlu B., Approach for fabricating cantilever probes for probe card assemblies, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: US7637007 , Initial Registration, 2009

Tunaboğlu B., Probe Pad Structure in a ceramic space transformer, Patent, CHAPTER H Electricity, The Invention Registration Number: US7374811 , Initial Registration, 2008

Tunaboğlu B., Blade probe and blade probe card, Patent, CHAPTER H Electricity, The Invention Registration Number: US7432728 , Initial Registration, 2008

Tunaboğlu B., Method of shaping lithographically-produced probe elements, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: US7462800 , Initial Registration, 2008

Tunaboşlu B., Probe repair methods, Patent, CHAPTER H Electricity, The Invention Registration Number: US7437813 , Initial Registration, 2008

Tunaboşlu B., 7271602 - Probe card assembly and method of attaching probes to the probe card assembly, Patent, CHAPTER H Electricity, The Invention Registration Number: 7271602 , Initial Registration, 2007

Tunaboşlu B., Probe Card Assembly with Dielectric Structure, Patent, CHAPTER H Electricity, The Invention Registration Number: US7279911 , Initial Registration, 2007

Tunaboşlu B., substrate with conductive layer, Patent, CHAPTER H Electricity, The Invention Registration Number: US patent No: 7180315 , Initial Registration, 2007

Tunaboşlu B., Method and apparatus for probe tip cleaning and shaping pad, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: US6908364 , Initial Registration, 2005

## Memberships / Tasks in Scientific Organizations

MEB Özel Program/Proje Uygulayan Okullar Danışma Kurulu, Member of Advisory Board, 2021 - Continues, Turkey

ODTÜ GÜNAM Danışma Kurulu, Member of Advisory Board, 2021 - Continues, Turkey

Çevre Vakfı, Board Member, 2018 - Continues, Turkey

Dünya Araştırma Organizasyonları Ortadoğu ve Kuzey Afrika Bölge Temsilcisi, World Association of Industrial and Technological Research Organizations (WAITRO), Member of the Board of Trustees, 2016 - Continues, Germany

TÜBİTAK Bilişim ve Bilgi Güvenliği İleri Teknolojiler Araştırma Merkezi, Board Member, 2014 - 2020, Turkey

Muallimköy Teknoloji Geliştirme Bölgesi Yönetici Anonim Şirketi (Bilişim Vadisi), , Executive Board Member, 2014 - 2016, Turkey

MAM Yönetim Kurulu, Chairman, 2014 - 2016, Turkey

UME, Chairman of the Board, 2014 - 2015, Turkey

## Scientific Refereeing

BOR DERGİSİ, National Scientific Refreed Journal, November 2021

Academia Letters, Other journals, August 2021

Academia letters, Other journals, July 2021

Academia Letters, Other journals, June 2021

TURKISH JOURNAL OF CHEMISTRY, Journal Indexed in SCI-E, April 2021

TUBİTAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Marmara University, Turkey, April 2021

Current Microwave Chemistry, Other Indexed Journal, September 2020

## Citations

Total Citations (WOS):210

h-index (WOS):10

## Awards

Tunaboşlu B., En İyi Makale Ödülü (Dergi Best Paper Award), Ieee , May 2012

Tunaboşlu B., En ilham Verici Sunum Ödülü, Ieee Semiconductor West Test Workshop, June 2010

Tunaboşlu B., Intel Üstün Hizmet Ödülü (Intel Recipient of Award and Certificate from Intel Tool Operations, Outstanding Service and Support), 2005 - 2006 , Intel, December 2005



## **Non Academic Experience**

TUBITAK, Merkez

TUBITAK, Malzeme Enstitüsü

Company, Nidec SV TCL, USA

Company, Kulicke and Soffa , Test