

## **Prof. Filiz Şahin**

### **Personal Information**

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### **International Researcher IDs**

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Publons / Web Of Science ResearcherID: ABB-5231-2020

ScopusID: 7004923891

Yoksis Researcher ID: 26277

### **Education Information**

Doctorate, İstanbul Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği (Dr), Turkey 1990 - 1997

Postgraduate, İstanbul Technical University, Fen Bilimleri Enstitüsü, Üretim Metalurjisi Ve Mühendisliği (Yl), Turkey 1988 - 1990

Undergraduate, İstanbul Technical University, Kimya-Metalurji Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, Turkey 1984 - 1987

### **Foreign Languages**

English

### **Dissertations**

Doctorate, Kaolenden Karbotermal Redüksiyon ve Nitrürleme ile Sinterlenebilir B-Sialon Tozu Sentezi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği (Dr), 1997

Postgraduate, Galvaniz Küllerinden Klor Giderilmesi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Üretim Metalurjisi Ve Mühendisliği (Yl), 1990

### **Research Areas**

Technical Sciences, Metallurgical and Materials Engineering, Material science and engineering, Ceramic Materials, Optical Properties, Mechanical Properties, Composites, Material Characterization, Structure-Property Relationship, Production Metallurgy, Powder Metallurgy

### **Academic Titles / Tasks**

Professor, İstanbul Technical University, Kimya-Metalurji Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, 2012 -

## **Continues**

Associate Professor, İstanbul Technical University, Kimya-Metalurji Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, 2007 - 2012

Associate Professor, İstanbul Technical University, Prof.Dr.Adnan Tekin Malzeme Bilimleri Ve Üretim Teknolojisi Uygulama Ve Araştırma Merkezi, 2005 - 2012

Assistant Professor, İstanbul Technical University, Prof.Dr.Adnan Tekin Malzeme Bilimleri Ve Üretim Teknolojisi Uygulama Ve Araştırma Merkezi, 2001 - 2005

Research Assistant, İstanbul Technical University, Kimya-Metalurji Fakültesi, Metalurji Ve Malzeme Mühendisliği Bölümü, 1988 - 2001

## **Courses**

Intr. to Fundamentals of Ceramic Materials, Undergraduate, 2022 - 2023

Ceramic Manufacturing, Undergraduate, 2022 - 2023

## **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **In-situ spark plasma sintering behavior of La<sub>2</sub>O<sub>3</sub>-Y<sub>2</sub>O<sub>3</sub> co-doped AlON ceramics: An attempt to prevent carbon contamination**  
Aydoğmuş D., Duygulu O., Şahin F.  
Journal of Materials Research and Technology, vol.27, pp.2323-2335, 2023 (SCI-Expanded)
- II. **Investigation of the density and microstructure homogeneity of square-shaped B<sub>4</sub>C-ZrB<sub>2</sub> composites produced by spark plasma sintering method**  
Yanmaz L., Şahin F.  
Journal of the European Ceramic Society, vol.43, no.4, pp.1295-1302, 2023 (SCI-Expanded)
- III. **B<sub>4</sub>C Composites with a TiB<sub>2</sub>-C Core-Shell Microstructure Produced by Self-Propagating High-Temperature Synthesis-Assisted Spark Plasma Sintering**  
Çınar Şahin F., Mansoor M., Cengiz M., Apak B., Yanmaz L., Balazsi K., Fogarassy Z., Derin C. B., Göller G., Yücel O.  
Journal of Physical Chemistry C, vol.126, no.47, pp.20114-20126, 2022 (SCI-Expanded)
- IV. **Comparative investigation of the properties of graphene nanoplatelet reinforced titanium diboride and niobium diboride ceramics**  
Akin Karadayı İ., Ocak B. C., Akarsu M. K., Yücel O., Şahin F., Göller G.  
International Journal of Refractory Metals and Hard Materials, vol.103, 2022 (SCI-Expanded)
- V. **Comparative study of reactive and nonreactive spark plasma sintering routes for the production of TaB<sub>2</sub>-TaC composites**  
Kaplan Akarsu M., Akin Karadayı İ., Şahin F., Göller G.  
INTERNATIONAL JOURNAL OF APPLIED CERAMIC TECHNOLOGY, vol.19, no.1, pp.332-343, 2022 (SCI-Expanded)
- VI. **Microstructural and magnetic characteristics of ceramic dispersion strengthened sintered stainless steels after thermal ageing**  
Balazsi C., Ben Zine H. R., Furko M., Czigany Z., Almasy L., Ryukhtin V., Murakami H., Göller G., Yücel O., Şahin F., et al.  
FUSION ENGINEERING AND DESIGN, vol.145, pp.46-53, 2019 (SCI-Expanded)
- VII. **Production and characterization of TZM based TiC or ZrC reinforced composites prepared by spark plasma sintering (SPS)**  
Tuzemen C., Yavaş B., Akin Karadayı İ., Yücel O., Şahin F., Göller G.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.781, pp.433-439, 2019 (SCI-Expanded)
- VIII. **Effects of SiC and SiC-GNP additions on the mechanical properties and oxidation behavior of NbB<sub>2</sub>**  
Akin Karadayı İ., Ocak B. C., Şahin F., Göller G.  
JOURNAL OF ASIAN CERAMIC SOCIETIES, vol.7, no.2, pp.170-182, 2019 (SCI-Expanded)
- IX. **NOVEL SiC DISPERSION STRENGTHENED AUSTENITIC STEELS PREPARED BY POWDER TECHNOLOGY**

- Ben Zine H. R., Sabin F., Czjgany Z., Balazsi K., Balazsi C.  
 ARCHIVES OF METALLURGY AND MATERIALS, vol.64, no.4, pp.1519-1526, 2019 (SCI-Expanded)
- X. Thermochemical modeling and experimental studies on the formation of TiB<sub>2</sub> through carbothermic synthesis from TiO<sub>2</sub> and B<sub>2</sub>O<sub>3</sub> or B<sub>4</sub>C  
 Derin B., Kurtoğlu K., SAHIN F., Yücel O.  
 CERAMICS INTERNATIONAL, vol.43, no.14, pp.10975-10982, 2017 (SCI-Expanded)
- XI. Pressureless sintering of a magnesia doped gelcast alumina ceramic  
 Bodur C. T., SAHIN F.  
 JOURNAL OF ADVANCED MATERIALS, pp.70-72, 2006 (SCI-Expanded)
- XII. Microstructural and mechanical investigation of hot pressed WC-Co/B<sub>4</sub>C composites  
 Cura M., Sahin F., Addemir O., Radev D.  
 EURO CERAMICS VIII, PTS 1-3, vol.264-268, pp.1017-1020, 2004 (SCI-Expanded)
- XIII. Nitridation of Ti B Al Al<sub>2</sub>O<sub>3</sub> composite powder  
 Özdemir Ö., Şahin F.  
 HIGH TEMPERATURE MATERIALS AND PROCESSES, vol.20, pp.429-435, 2001 (SCI-Expanded)
- XIV. Chloride removal from zinc ash  
 Sahin F., DERİN B., Yucel O.  
 Scandinavian Journal of Metallurgy, vol.29, no.5, pp.224-230, 2000 (SCI-Expanded)
- XV. A reduction study of copper slag in a DC arc furnace  
 Yucel O., Sahin F., Sirin B., Addemir O.  
 SCANDINAVIAN JOURNAL OF METALLURGY, vol.28, no.3, pp.93-99, 1999 (SCI-Expanded)
- XVI. Reduction study of copper slag in a DC arc furnace  
 YÜCEL O., Şahin F., Şirin B., Addemir O.  
 SCANDINAVIAN JOURNAL OF METALLURGY, vol.28, no.3, pp.93-99, 1999 (SCI-Expanded)
- XVII. The preparation of sialon from Kaolin by carbonitrothermic reduction  
 Şahin F.  
 HIGH TEMPERATURE MATERIALS AND PROCESSES, vol.15, pp.97-101, 1996 (SSCI)
- XVIII. The preparation of ferroboron and ferrovanadium by aluminothermic reduction  
 YÜCEL O., Şahin F., Addemir O., Tekin A.  
 HIGH TEMPERATURE MATERIALS AND PROCESSES, vol.15, pp.103-109, 1996 (SCI-Expanded)
- XIX. MECHANICAL PROPERTIES OF SPARK PLASMA SINTERED ZrC SiC COMPOSITES  
 Şahin F.  
 TMS 2012 141ST ANNUAL MEETING & EXHIBITION - SUPPLEMENTAL PROCEEDINGS, VOL 1: MATERIALS PROCESSING AND INTERFACES, vol.0, pp.569-575, 1900 (SSCI)

## Articles Published in Other Journals

- I. Ab-initio study of paramagnetic defects in Mn and Cr doped transparent polycrystalline Al<sub>2</sub>O<sub>3</sub> ceramics  
 Mansoor M., Mansoor M., Mansoor M., ŞAHİN F., ER Z.  
 Synthesis and Sintering, vol.1, pp.135-142, 2021 (Peer-Reviewed Journal)
- II. Sintered transparent polycrystalline ceramics: the next generation of fillers for clarity enhancement in corundum  
 ŞAHİN F., Mansoor M., Mansoor M., Mansoor M., Themelis T.  
 Synthesis and Sintering, vol.1, pp.183-188, 2021 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. PRODUCTION AND CHARACTERIZATION OF BORON CARBIDE-3.5 CARBON NANOTUBE COMPOSITES

**WITH ADDITIONAL VARYING AMOUNTS OF GRAPHENE NANOPLATELET PREPARED BY SPS**

BALCI E., YÜCEL O., AKIN KARADAYI İ., ŞAHİN F., GÖLLER G.

International Materials Technologies and Metallurgy Conference 2019, 31 October - 01 November 2019

**II. Synthesis of Mn<sub>2</sub>O<sub>3</sub> Nanopowders with Urea and Citric Acid by Solution Combustion Route**

YILMAZ E., Sönmez M. Ş., Derin B., Sahin F., Yücel O.

146th TMS Annual Meeting and Exhibition / Symposium on Mechanical and Creep Behavior of Advanced Materials - A Structural-Materials-Division Symposium Honoring Prof. K. Linga Murty, California, United States Of America, 26 February - 02 March 2017, pp.39-46

**III. Preparation of TZM Alloy with Addition of B<sub>4</sub>C by Using Spark Plasma Sintering**

YAVAŞ B., ŞAHİN F., YÜCEL O., GÖLLER G.

18th International Metallurgy and Materials Congress - IMMC 2016, 29 September - 01 October 2016

**IV. Phase interaction in hydroxylapatite/LaPO<sub>4</sub> composite**

Ergun C., Halloran J. W., Bae C., Sahin F.

8th Biennial Conference on Engineering Systems Design and Analysis, Turin, Italy, 4 - 07 July 2006, pp.373-376

**V. A process designed for the ancient copper smelting slags**

Derin B., Sahin F., Yucel O., Acma E., Addemir O.

Yazawa International Symposium on Metallurgical and Materials Processing, California, United States Of America, 2 - 06 March 2003, pp.471-482

## **Supported Projects**

Akin Karadayı İ., Göller G., Şahin F., Project Supported by Higher Education Institutions, Reaktif Sinterleme Yöntemi ile

Tantalyum Borür ve Tantalyum Borür-Grafen Nano Plaka Kompozitlerinin Üretimi ve Karakterizasyonu, 2017 - 2021

Şahin F., Project Supported by Higher Education Institutions, Spark Plasma sintering of boron carbide ceramics using

metallic aluminium in square cross section, 2013 - 2018

Şahin F., Project Supported by Higher Education Institutions, Silisyum Karbür Seramiklerinin Spark Plazma

Sinterlenmesi, 2012 - 2018

Şahin F., Project Supported by Higher Education Institutions, Alon Ceramics Prepared By Spark Plasma Sintering, 2011 - 2018

Şahin F., Project Supported by Higher Education Institutions, THE EFFECT OF HEATING RATE ON MAGNESİA DOPED ALUMİNA PRED BY SPS, 2009 - 2018

Şahin F., Project Supported by Higher Education Institutions, Spark Plazma Sinterleme Yöntemi İle Işık Geçirgenliğine Sahip Magnezyum Aluminat Spinel (MgAl<sub>2</sub>O<sub>3</sub>) Seramiklerinin Üretimi Ve Karakterizasyonu, 2015 - 2016

Şahin F., Project Supported by Higher Education Institutions, B4C-Ti Tozlarından Hareketle Spark Plazma Sinterleme Tekniği ile B4C Esaslı Kompozit Üretimi ve Karakterizasyonu, 2014 - 2015

Şahin F., Project Supported by Higher Education Institutions, B4C-Si Tabakalı Kompozitlerin Spark Plazma Sinterleme Tekniği ile Üretimi ve Karakterizasyonu, 2014 - 2015

Şahin F., Project Supported by Higher Education Institutions, Değişik Geometri Ve Boyutlarda B4C Seramiklerinin SPS Yöntemiyle Üretilmesi Ve Karakterizasyonu, 2013 - 2015

Şahin F., Project Supported by Higher Education Institutions, SiC Esaslı Seramiklerinin Spark Plazma Sinterleme Tekniği ile üretimi ve Karakterizasyonu, 2011 - 2014

Şahin F., Project Supported by Higher Education Institutions, Biyomalzeme Amaçlı TiAl-4V Alaşım Tozlarının SPS ile Sinterlenmesi ve Karakterizasyonu, 2010 - 2014

Şahin F., Project Supported by Higher Education Institutions, Reaktif Spark Plazma Sintirleme ile B4C-TiB<sub>2</sub> Kompozitlerinin Üretimi, 2012 - 2012

Şahin F., Project Supported by Higher Education Institutions, AION Seramiklerin Reaktif Spark Plazma Yöntemi ile Sinterlenmesi, 2011 - 2012

Şahin F., Project Supported by Higher Education Institutions, WC Esaslı Sert Malzmelerin Spark Plazma Sinterleme Yöntemiyle Geliştirilmesi, 2011 - 2012

Şahin F., TUBITAK Project, Spark Plazma Sinterleme Yöntemi İle Transparan Al<sub>2</sub>O<sub>3</sub> Eldesine Isıtma Hızı Kademeli

Sinterleme Ve Sinterleme İlavelerinin Etkisi, 2010 - 2012  
Şahin F., Project Supported by Higher Education Institutions, Kalay Banyosunun termodinamik ve Kinetik Olarak İncelenmesi, 2010 - 2012  
Şahin F., Project Supported by Higher Education Institutions, Spark Plazma Sinterleme (SPS) Yöntemi İle Işık Geçirgenliğine Sahip Alümina Seramiklerinin Üretilimi ve Karakterizasyonu, 2011 - 2011  
Şahin F., Project Supported by Higher Education Institutions, B4C-TiB2 Kompozitlerinin Spark Plazma Sinterlem Yöntemi İle Üretim ve Karakterizasyonu, 2010 - 2010  
Şahin F., Project Supported by Higher Education Institutions, BOR KARBÜRÜN SPARK PLAZMA YÖNTEMİYLE SİNTERLENMESİ , ÇEŞİTLİ SİNTERLEME KATKILARININ SİNTERLEME VE MALZEME ÖZELLİKLERİNE ETKİLERİ, 2010 - 2010  
Şahin F., Project Supported by Higher Education Institutions, Reaktif Spark Plazma Sinterleme ile B4C-SiC Kompozit Eldesi, 2009 - 2010  
Şahin F., Project Supported by Higher Education Institutions, Bor Karbür Seramiklerinin Metal İnfiltrasyonu ile Kuvvetlendirilmesi, 1999 - 2001

## Scientific Refereeing

Journal of The American Ceramic Society, SCI Journal, December 2017  
TUBITAK Project, December 2017  
Project Supported by Higher Education Institutions, September 2017  
Journal of the American Ceramic Society, SCI Journal, July 2017  
International Journal of the Applied Ceramic Technology, SCI Journal, May 2017

## Metrics

Publication: 183  
Citation (WoS): 641  
Citation (Scopus): 782  
H-Index (WoS): 15  
H-Index (Scopus): 16

## Congress and Symposium Activities

ECERS2107, Invited Speaker, Budapest, Hungary, 2017