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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAE-6923-2019

ScopusID: 57190799866

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Education Information

Doctorate, Clemson University, Faculty of Engineering , Material Science and Engineering, United States Of America 2010 - 2015

Postgraduate, Clemson University, Faculty of Engineering, Mechanical Engineering, United States Of America 2007 - 2010

Undergraduate, Izmir Institute Of Technology, Faculty Of Engineering, Department Of Chemistry Engineering (English), Turkey 2001 - 2006

Dissertations

Doctorate, Synthesis and Characterization of Fluorinated Polyester Coatings, Clemson University, 2015

Postgraduate, Monitoring CO Gas in Fuel Cell by Using Nano-mechanical Cantilever Sensor, Clemson University {South Carolina}, Makine Mühendisliği, 2009

Research Areas

Natural Sciences, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Ankara University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2024 - Continues

Research Assistant PhD, Ankara University, Mühendislik Fakültesi, Kimya Mühendisliği Bölümü, 2017 - 2024

Research Assistant PhD, Clemson University, Faculty of Engineering, Chemical Engineering, 2016 - 2017

Courses

Petroleum Technology, Undergraduate, 2024 - 2025

Organic Chemistry, Undergraduate, 2023 - 2024

Organic Chemistry Lab, Undergraduate, 2024 - 2025

Introduction to Chemical Engineering, Undergraduate, 2024 - 2025

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Toward Water and Oil Repellent Coating: Synthesis of Fluorinated Methacrylate-Glycidyl Methacrylate Copolymers**
ÖZKAN HÜKÜM K., Caliskan T., Caykara T., DEMİREL G.
ACS Omega, vol.9, no.32, pp.34650-34660, 2024 (SCI-Expanded)
- II. **Long-term antifouling surfaces for urinary catheters.**
Tüfekçi M., Hamarat S., Demir Çalışkan T., Özgüzar H. F., Meydan A. E., Göçmen J. S., Evren Yurtcu E., Gökçe M. İ., Göktaş H.
Journal of materials chemistry. B, vol.12, no.23, pp.5711-5721, 2024 (SCI-Expanded)
- III. **Toward the Replacement of Long-Chain Perfluoroalkyl Compounds: Perfluoropolyether-Based Low Surface Energy Grafted Nanocoatings**
Caliskan T., ÖZKAN HÜKÜM K., Caykara T., Luzinov I.
ACS APPLIED POLYMER MATERIALS, vol.4, no.2, pp.980-986, 2022 (SCI-Expanded)
- IV. **Towards a Long-Chain Perfluoroalkyl Replacement: Water and Oil Repellent Perfluoropolyether-Based Polyurethane Oligomers**
Wei L., Caliskan T., Brown P. J., Luzinov I.
POLYMERS, vol.13, no.7, 2021 (SCI-Expanded)
- V. **Perfluoropolyether-based oleophobic additives: Influence of molecular weight distribution on wettability of polyethylene terephthalate films**
Caliskan T., Wei L., Luzinov I.
JOURNAL OF FLUORINE CHEMISTRY, vol.244, 2021 (SCI-Expanded)
- VI. **Highly Oil-Repellent Thermoplastic Boundaries via Surface Delivery of CF₃ Groups by Molecular Bottlebrush Additives**
Wei L., Caliskan T., Tu S., Choudhury C. K., Kuksenok O., Luzinov I.
ACS APPLIED MATERIALS & INTERFACES, vol.12, no.34, pp.38626-38637, 2020 (SCI-Expanded)
- VII. **Effect of number of -CF₃ groups in tails of polyester on surface wettability of coatings: synthesis and characterization of PFPE based polyesters with three -CF₃ groups in tails**
Caliskan T., Luzinov I.
JOURNAL OF POLYMER RESEARCH, vol.27, no.5, 2020 (SCI-Expanded)
- VIII. **Micro-cantilever sensors for monitoring carbon monoxide concentration in fuel cells**
Caliskan T., Bruce D. A., Daqaq M. F.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.30, no.4, 2020 (SCI-Expanded)
- IX. **Key-and-lock commodity self-healing copolymers**
Urban M. W., Davydovich D., Yang Y., DEMİR ÇALIŞKAN T., Zhang Y., Casabianca L.
SCIENCE, vol.362, no.6411, pp.220-225, 2018 (SCI-Expanded)
- X. **Attainment of Water and Oil Repellency for Engineering Thermoplastics without Long-Chain Perfluoroalkyls: Perfluoropolyether-Based Triblock Polyester Additives**
Wei L., DEMİR ÇALIŞKAN T., Grant A., Tsukruk V., Brown P. J., Luzinov I.
LANGMUIR, vol.34, no.43, pp.12934-12946, 2018 (SCI-Expanded)
- XI. **Toward a Long-Chain Perfluoroalkyl Replacement: Water and Oil Repellency of Polyethylene Terephthalate (PET) Films Modified with Perfluoropolyether-Based Polyesters**
DEMİR ÇALIŞKAN T., Wei L., Nitta N., Yushin G., Brown P. J., Luzinov I.
ACS APPLIED MATERIALS & INTERFACES, vol.9, no.28, pp.24318-24330, 2017 (SCI-Expanded)

Articles Published in Other Journals

I. **Synthesis of Polymer Brushes by Surface-Initiated Controlled/Living Free Radical Polymerization Techniques**

ÖZKAN HÜKÜM K., MUTLUTÜRK E., DEMİR ÇALIŞKAN T., ÇAYKARA T.

Hacettepe Journal of Biology and Chemistry, vol.48, no.5, pp.395-405, 2020 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Antifouling Surfaces Against E. coli**

Göktaş H., Tüfekçi M., Demir Çalışkan T., Özgüzar H. F., Göçmen J. S., Evren Yurtcu E., Gökce M. İ.

41st World Congress of Endourology and Urotechnology WCET 2024, Seoul, South Korea, 12 August 2024

II. **Investigation of Antifouling Effect of PEG-Coated Urinary Catheter Surfaces Against Proteus mirabilis**

TÜFEKÇİ M., HAMARAT S., DEMİR ÇALIŞKAN T., Özgüzar F., GÖÇMEN J. S., EVREN E., GÖKCE M. İ., GÖKTAŞ H.

Turkish Physical Society 39th International Physics Congress, Bodrum, Turkey, 31 August - 04 September 2023

III. **Synthesis of Polymeric Thin Films for Biomedical Applications**

HAMARAT S., TÜFEKÇİ M., Özgüzar F., DEMİR ÇALIŞKAN T., GÖÇMEN J. S., EVREN E., GÖKCE M. İ., GÖKTAŞ H.

Turkish Physical Society 39th International Physics Congress, Bodrum, Turkey, 31 August - 04 September 2023

IV. **PEG-based Antimicrobial/Antifouling PECVD Coatings**

Göktaş H., Gökce M. İ., Demir Çalışkan T., Sedef Göçmen J., Tüfekçi M., Hamarat S., Özgüzar H. F., Evren Yurtcu E.

HUMBOLDT KOLLEG 2023 Recent Advances in Material Science: Perspectives from Physics, Chemistry and Biology, Ankara, Turkey, 12 - 14 April 2023, pp.44

V. **Towards a long-chain perfluoroalkyl replacement: wettability of polymer films modified with perfluoropolyethers-based triblock copolymers**

Wei L., DEMİR ÇALIŞKAN T., Luzinov I., Brown P.

255th National Meeting and Exposition of the American-Chemical-Society (ACS) - Nexus of Food, Energy, and Water, Louisiana, United States Of America, 18 - 22 March 2018, vol.255

VI. **Block copolymers containing fluorinated polyurethanes as hydrophobic/oleophobic additives to thermoplastics**

Wei L., DEMİR ÇALIŞKAN T., Brown P., Luzinov I.

254th National Meeting and Exposition of the American-Chemical-Society (ACS) on Chemistry's Impact on the Global Economy, Washington, Kiribati, 20 - 24 August 2017, vol.254

VII. **Towards fibers that will possess hydrophobic/oleophobic properties for an extended period of time**

Wei L., DEMİR ÇALIŞKAN T., Brown P., Luzinov I.

253rd National Meeting of the American-Chemical-Society (ACS) on Advanced Materials, Technologies, Systems, and Processes, San-Francisco, Costa Rica, 2 - 06 April 2017, vol.253

VIII. **Fabrication of low wettable perfluoro-polyisophthaloyl ester with PET coatings**

DEMİR ÇALIŞKAN T., Brown P., Luzinov I.

247th National Spring Meeting of the American-Chemical-Society (ACS), Texas, United States Of America, 16 - 20 March 2014, vol.247

IX. **Oleophobic perfluoro polyester films**

DEMİR ÇALIŞKAN T., Galabura Y., Brown P., Luzinov I.

247th National Spring Meeting of the American-Chemical-Society (ACS), Texas, United States Of America, 16 - 20 March 2014, vol.247

X. **Surface modification with perfluoro substituted isophthalic acid for reduction of surface wettability with non-aqueous liquids**

DEMİR ÇALIŞKAN T., Seeber M., Galabura Y., Zdyrko B., Luzinov I.

244th National Fall Meeting of the American-Chemical-Society (ACS), Pennsylvania, United States Of America, 19 - 23 August 2012, vol.244

XI. **Grafted layer for reduction of surface wettability with non-aqueous liquids**

DEMİR ÇALIŞKAN T., Korneva G., Zdyrko B., Kornev K., Luzinov I.

242nd National Meeting of the American-Chemical-Society (ACS), Colorado, United States Of America, 28 August -

Supported Projects

Göktaş H., Gökce M. İ., Evren Yurtcu E., Demir Çalışkan T., TUBITAK Project, Antifouling thin film synthesis for urinary catheters and investigation of their bacterial interactions, 2022 - 2024

Demirel G., Demir Çalışkan T., Özkan Hüküm K., Project Supported by Higher Education Institutions, TERSİNİR KATILMA-AYRILMA ZİNCİR TRANSFER RAFT POLİMERİZASYONU İLE KENDİ KENDİNİ TEMİZLEYEN AKILLI KAPLAMALARIN SENTEZLENMESİ, 2021 - 2023

Metrics

Publication: 23

Citation (WoS): 305

Citation (Scopus): 301

H-Index (WoS): 5

H-Index (Scopus): 5