

Asst. Prof. SEMA SEVİNÇ ŞENGÖR

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Research Areas

Environmental Engineering

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Department Of Environmental Engineering, 2020 - Continues

Academic and Administrative Experience

Deputy Head of Department, Middle East Technical University, 2020 - Continues

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

- I. **A Review on Interpretable and Explainable Artificial Intelligence in Hydroclimatic Applications**
Basagaoglu H., Chakraborty D., Do Lago C., Gutierrez L., ŞAHİNLİ M. A. , Giacomoni M., Furl C., Mirchi A., Moriasi D., ŞENGÖR S. S.
WATER, vol.14, no.8, 2022 (Journal Indexed in SCI)
- II. **Bioleaching of metals from waste printed circuit boards using bacterial isolates native to abandoned gold mine**
Kumar A., Saini H. S. , Şengör S. S. , Sani R. K. , Kumar S.
BioMetals, vol.34, no.5, pp.1043-1058, 2021 (Journal Indexed in SCI)
- III. **Microbially mediated kinetic sulfur isotope fractionation: reactive transport modeling benchmark**
Cheng Y., Arora B., ŞENGÖR S. S. , Druhan J. L. , Wanner C., van Breukelen B. M. , Steefel C.
COMPUTATIONAL GEOSCIENCES, vol.25, no.4, pp.1379-1391, 2021 (Journal Indexed in SCI)
- IV. **Amendment for increased methane production rate in municipal solid waste landfill gas collection systems**
Larson S. L. , Martin W. A. , ŞENGÖR S. S. , Wade R., Altamimi F.
SCIENCE OF THE TOTAL ENVIRONMENT, vol.772, 2021 (Journal Indexed in SCI)
- V. **Biogeochemical cycling of heavy metals in lake sediments: impact of multispecies diffusion and electrostatic effects**
Li J., Sengor S. S.
COMPUTATIONAL GEOSCIENCES, vol.24, no.4, pp.1463-1482, 2020 (Journal Indexed in SCI)
- VI. **Single and joint effects of Zn and Cu to ATP pool and microbial recovery in continuous growth systems**
Sengor S. S. , Gikas P., Moberly J. G.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.94, no.3, pp.892-899, 2019 (Journal Indexed in SCI)

- VII. **Pressure-driven water flow through hydrophilic alumina nanomembranes**
Koklu A., Li J., Sengor S. S., Beskok A.
MICROFLUIDICS AND NANOFUIDICS, vol.21, no.7, 2017 (Journal Indexed in SCI)
- VIII. **Impact of different environmental conditions on the aggregation of biogenic U(IV) nanoparticles synthesized by *Desulfovibrio alaskensis* G20**
Sengor S. S., Singh G., Dohnalkova A., Spycher N., Ginn T. R., Peyton B. M., Sani R. K.
BIOMETALS, vol.29, no.6, pp.965-980, 2016 (Journal Indexed in SCI)
- IX. **Synthesis of graphene oxide/magnesium oxide nanocomposites with high-rate adsorption of methylene blue**
Heidarizad M., Sengor S. S.
JOURNAL OF MOLECULAR LIQUIDS, vol.224, pp.607-617, 2016 (Journal Indexed in SCI)
- X. **ZnO quantum dots-graphene composites: Formation mechanism and enhanced photocatalytic activity for degradation of methyl orange dye**
Tayyebi A., Outokesh M., Tayebi M., Shafikhani A., Sengor S. S.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.663, pp.738-749, 2016 (Journal Indexed in SCI)
- XI. **A uranium bioremediation reactive transport benchmark**
Yabusaki S. B., Sengor S. S., Fang Y.
COMPUTATIONAL GEOSCIENCES, vol.19, no.3, pp.551-567, 2015 (Journal Indexed in SCI)
- XII. **Benchmark reactive transport simulations of a column experiment in compacted bentonite with multispecies diffusion and explicit treatment of electrostatic effects**
Alt-Epping P., Tournassat C., Rasouli P., Steefel C. I., Mayer K. U., Jenni A., Maeder U., Sengor S. S., Fernandez R.
COMPUTATIONAL GEOSCIENCES, vol.19, no.3, pp.535-550, 2015 (Journal Indexed in SCI)
- XIII. **A reactive transport benchmark on heavy metal cycling in lake sediments**
Arora B., Sengor S. S., Spycher N. F., Steefel C. I.
COMPUTATIONAL GEOSCIENCES, vol.19, no.3, pp.613-633, 2015 (Journal Indexed in SCI)
- XIV. **A reactive transport benchmark on modeling biogenic uraninite re-oxidation by Fe(III)-(hydr)oxides**
Sengor S. S., Mayer K. U., Greskowiak J., Wanner C., Su D., Prommer H.
COMPUTATIONAL GEOSCIENCES, vol.19, no.3, pp.569-583, 2015 (Journal Indexed in SCI)
- XV. **The influence of single and combined effects of Zn, Cu and temperature on microbial growth**
ŞENGÖR S. S., Gikas P.
Global Nest Journal, vol.16, no.4, pp.699-706, 2014 (Journal Indexed in SCI Expanded)
- XVI. **Reoxidation of Biogenic Reduced Uranium: A Challenge Toward Bioremediation**
Singh G., Sengor S. S., Bhalla A., Kumar S., De J., Stewart B., Spycher N., Ginn T. M., Peyton B. M., Sani R. K.
CRITICAL REVIEWS IN ENVIRONMENTAL SCIENCE AND TECHNOLOGY, vol.44, no.4, pp.391-415, 2014 (Journal Indexed in SCI)
- XVII. **Anaerobic microbial growth near thermodynamic equilibrium as a function of ATP/ADP cycle: The effect of maintenance energy requirements**
Sengor S. S., Ginn T. R., Brugato C. J., Gikas P.
BIOCHEMICAL ENGINEERING JOURNAL, vol.81, pp.65-72, 2013 (Journal Indexed in SCI)
- XVIII. **Modeling contaminant transport and remediation at an acrylonitrile spill site in Turkey**
Sengor S. S., ÜNLÜ K.
Journal of Contaminant Hydrology, vol.150, pp.77-92, 2013 (Journal Indexed in SCI Expanded)
- XIX. **Comparison of single and joint effects of Zn and Cu in continuous flow and batch reactors**
Sengor S. S., Gikas P., Moberly J. G., Peyton B. M., Ginn T. R.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.87, no.3, pp.374-380, 2012 (Journal Indexed in SCI)
- XX. **The effects of heavy metals and temperature on microbial growth and lag**
Gikas P., ŞENGÖR S. S., Ginn T., Moberly J., Peyton B.
Global Nest Journal, vol.11, no.3, pp.325-332, 2009 (Journal Indexed in SCI)
- XXI. **INFLUENCE OF HEAVY METALS ON MICROBIAL GROWTH KINETICS INCLUDING LAG TIME:**

MATHEMATICAL MODELING AND EXPERIMENTAL VERIFICATION

Sengor S. S. , Barua S., Gikas P., Ginn T. R. , Peyton B., Sani R. K. , Spycher N. F.

ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY, vol.28, no.10, pp.2020-2029, 2009 (Journal Indexed in SCI)

XXII. Heavy Metal-Mineral Associations in Coeur d'Alene River Sediments: A Synchrotron-Based Analysis

Moberly J. G. , Borch T., Sani R. K. , Spycher N. F. , Sengoer S. S. , Ginn T. R. , Peyton B. M.

WATER AIR AND SOIL POLLUTION, vol.201, no.1-4, pp.195-208, 2009 (Journal Indexed in SCI)

XXIII. Preface

Alt-Epping P., Al Bassam B., Blum A., Arnorrson S., Benaabidate L., Brantley S., Ayora C., Berner Z., Broers H., Bahaj T., et al.

Water-Rock Interaction - Proceedings of the 12th International Symposium on Water-Rock Interaction, WRI-12, vol.1, 2007 (Journal Indexed in AHCI)

Books & Book Chapters

I. Emerging Technologies in Environmental Bioremediation

Shah M. P. (Editor), Rodriguez-Couto S. (Editor), Şengör S. S. (Editor)

Elsevier Science, Oxford/Amsterdam , Amsterdam, 2020

Refereed Congress / Symposium Publications in Proceedings

I. Graphene oxide/magnesium oxide nanocomposite: A novel catalyst for ozonation of phenol from wastewater

Heidarizad M., ŞENGÖR S. S.

17th World Environmental and Water Resources Congress 2017, California, United States Of America, 21 - 25 May 2017, pp.192-200

II. Reductive dissolution and metal transport in Lake Coeur d'Alene sediments

ŞENGÖR S. S. , Spycher N., Ginn T., Moberly J., Peyton B., Sani R.

12th International Symposium on Water-Rock Interaction, WRI-12, Kunming, China, 31 July - 04 August 2007, vol.2, pp.895-899

Activities in Scientific Journals

Colloids and Interfaces, Editor, 2022 - Continues

Scientific Refereeing

JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, Journal Indexed in SCI-E, October 2021

CANADIAN JOURNAL OF CHEMICAL ENGINEERING, SCI Journal, December 2020

BIOCHEMICAL ENGINEERING JOURNAL, SCI Journal, December 2020

Journal of Nanostructure in Chemistry, Journal Indexed in ESCI, December 2020

An Integration of Phycoremediation Processes in Wastewater Treatment, Textbook Published by Renowned Publishing Houses, January 2020

Citations

Total Citations (WOS):359

h-index (WOS):11