

Asst. Prof. Fatma Gülmez Yıldırım

Personal Information

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International Researcher IDs

ScholarID: Fatma_Guelmez

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ScopusID: 55749056400

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Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği Programı, Turkey 2009 - 2015

Postgraduate, Istanbul Technical University, Avrasya Yer Bilimleri Enstitüsü, Katı Yer Bilimleri, Turkey 2007 - 2009

Undergraduate, Istanbul Technical University, Maden, Jeoloji Mühendisliği, Turkey 2001 - 2007

Dissertations

Doctorate, Ankara-Erzincan kenet kuşağı üzerinde yer alan geç kretase yaşlı lösitli bazaltlar ile lamprofirlerin petrolojik evrimi ve tektonik anlamı başlıklı, Istanbul Technical University, Fen Bilimleri Enstitüsü, 2015

Research Areas

Geological Engineering

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Maden, Jeoloji Mühendisliği, 2021 - Continues

Researcher, Johannes Gutenberg Universitaet Mainz, Institut für Geowissenschaften, Petrologie, 2018 - 2019

Research Assistant, Istanbul Technical University, Maden, Jeoloji Mühendisliği, 2007 - 2015

Researcher, Johannes Gutenberg Universitaet Mainz, Institut für Geowissenschaften, Petrologie, 2014 - 2014

Researcher, University of Georgia, Franklin College of Arts and Sciences, Department of Geology, 2012 - 2012

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Experimental production of K-rich metasomes through sediment recycling at the slab-mantle interface in the fore-arc**
Gülmez Yıldırım F., Prelević D., Förster M. W., Buhre S., Günther J.
Scientific Reports, vol.13, no.1, 2023 (SCI-Expanded)
- II. **The inherited structure of the Gediz Graben (Aegean Extensional Province, Turkey): insights from**

the deep geothermal wells in the Alaşehir sub-basin

Gülmez Yıldırım F., Ercan H. Ü., Lom N., GÖÇMENGİL G., Damcı E.

International Journal of Earth Sciences, vol.112, no.6, pp.1671-1686, 2023 (SCI-Expanded)

- III. **Petrogenesis of Early Cenozoic Sarıcakaya–Nallıhan Volcanism in NW Turkey: Implications for the Geodynamic Setting and Source Characterization of the Balkanatolia Magmatic Realm**
GÖÇMENGİL G., Gülmez Yıldırım F., Karacık Z., AYSAL N.
Minerals, vol.12, no.12, 2022 (SCI-Expanded)
- IV. **Characteristics and evolution of the Etili silica sinter epithermal deposits, canakkale - Turkey: Relation to alkali chloride vs acid-sulfate fluids**
Ercan H. U., Ece I. Ö., Schroeder P. A., Gülmez Yıldırım F.
ORE GEOLOGY REVIEWS, vol.142, 2022 (SCI-Expanded)
- V. **Petrological evolution of Karlıova-Varto volcanism (Eastern Turkey): Magma genesis in a transtensional triple-junction tectonic setting**
Karaoğlu Ö., Gulmez F., Gocmengil G., Lustrino M., Di Giuseppe P., Manetti P., Savascin M. Y., Agostini S.
LITHOS, vol.364, 2020 (SCI-Expanded)
- VI. **Deep structure of central menderes massif: Data from deep geothermal wells**
Gulmez F., Damci E., Ulgen U. B., Okay A.
Turkish Journal of Earth Sciences, vol.28, no.4, pp.531-543, 2019 (SCI-Expanded)
- VII. **Ultrapotassic Volcanism from the Waning Stage of the Neotethyan Subduction: A Key Study from the Izmir-Ankara-Erzincan Suture Belt, Central Northern Turkey**
Gulmez F., Genç Ş. C., Prelevic D., Tuysuz O., Karacık Z., Roden M. F., Billor Z.
Journal of Petrology, vol.57, no.3, pp.561-593, 2016 (SCI-Expanded)
- VIII. **Petrochemical features of Miocene volcanism around the Çubukludağ graben and Karaburun peninsula, western Turkey: Implications for crustal melting related silicic volcanism**
Karacık Z., Genc Ş. C., Gulmez F.
Journal of Asian Earth Sciences, vol.73, pp.199-217, 2013 (SCI-Expanded)

Articles Published in Other Journals

- I. **Investigation of Carbon Dioxide Storage Potential of Orhaneli Ophiolite: Experimental Findings**
ÜNAL ERCAN H., GÖÇMENGİL G., GÜLMEZ YILDIRIM F., TOPKAFA M., ÜNDÜL Ö.
International Journal of Pure and Applied Sciences, vol.8, pp.204-216, 2022 (Peer-Reviewed Journal)
- II. **John Lawrence Smith's contributions to mineralogy, mining, and geochemical research in the Ottoman empire John Lawrence Smith'in Osmanlı İmparatorluğundaki Mineraloji, Maden ve Jeokimya Araştırmalarına Katkıları**
Göçmengil G., Gülmez F.
Osmanlı Bilimi Araştırmaları, vol.22, no.2, pp.219-239, 2021 (Scopus)
- III. **Differentiation processes in late cretaceous ultrapotassic volcanics around amasya**
Gülmez F., Genç Ş. C.
Bulletin of the Mineral Research and Exploration, vol.2015, no.150, pp.149-168, 2015 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Formation model of silica sinter deposits: an example from Western Turkey**
ÜNAL ERCAN H., ECE Ö. I., Schroeder P., GÜLMEZ YILDIRIM F.
EGU General Assembly 2022, Viyana, Austria, 23 May 2022
- II. **Orhaneli Ophiolitinin CO₂ Depolama Potansiyeline İlişkin Öncel Bulgular**
GÖÇMENGİL G., ÜNAL ERCAN H., GÜLMEZ YILDIRIM F., TOPKAFA M., ÜNDÜL Ö.
74. Türkiye Jeoloji Kurultayı, Ankara, Turkey, 11 April 2022

- III. **Origin and Evolution of Silicified Rocks in the Etili - Çanakkale Turkey**
ÜNAL ERCAN H., ECE Ö. I., Schroeder P., GÜLMEZ YILDIRIM F.
EGU General Assembly 2021, Viyana, Australia, 19 - 23 April 2021
- IV. **The origin of Alpine-Himalayan orogenic K-rich lavas: an integrated experimental and geochemical approach**
Prelevic D., Buhre S., GÜLMEZ F., Michael F.
17th International Symposium on Experimental Mineralogy, Petrology and Geochemistry, Potsdam, Germany, 1 - 05 March 2021, pp.64
- V. **Simulating mantle metasomatism by reacting carbonate-rich sediment with peridotite at forearc mantle P-T conditions**
GÜLMEZ F.
GeoMünster 2019, Münster, Germany, 22 September 2019
- VI. **Isotopic and Trace Element Geochemistry of Karlıova-Varto volcanism (Eastern Turkey) Deciphering the mantle source, crustal contributions and its tectonic controls**
KARAOĞLU Ö., GÜLMEZ F., GÖÇMENİL G., Agostini S., Lustrino M., Di Giuseppe P., Manetti P., SAVAŞÇIN M. Y.
GeoMünster 2019, Münster, Germany, 22 - 26 September 2019
- VII. **Ankara Erzincan Kenedi Boyunca Gelişmiş olan Geç Kretase Yaşlı Ultrapotasik Magmatik Kuşağın Jeoloji Petroloji ve Petrojenezi**
GENÇ Ş. C., GÜLMEZ F., KARACIK Z., TÜYSÜZ O., Dejan P., Michael R., Zeki B., Hames W.
İstanbul Üniversitesi'nde Jeolojinin 100. Yılı Sempozyumu Bildiri Özetleri Kitabı, Turkey, 21 - 23 October 2015, pp.27-28
- VIII. **Can slab rollback trigger ultrapotassic volcanism in an active arc setting an example from Northern Anatolia Turkey**
GÜLMEZ F., Prelevic D., GENÇ Ş. C.
Geoberlin, Berlin, Germany, 4 - 07 October 2015
- IX. **Petrology of the Middle Eocene volcanic rocks of Almacik Mountain, NW Turkey**
Gulmez F., Genc S. C.
19th Annual VM Goldschmidt Conference, Davos, Switzerland, 21 June 2009, vol.73

Supported Projects

Gülmez Yıldırım F., Ünal Ercan H., TUBITAK Project, Orhaneli Ofiyolitine Ait Mafik/Ultramafik Kaya Gruplarının Jeolojik Karbon Depolama Potansiyelinin Deneysel Olarak Araştırılması: Karbondioksit Emisyonu Problemine Jeolojik/Mineralojik Çözüm, 2023 - 2026

Gülmez Yıldırım F., TUBITAK Project, Ezine-Ayvacak Magmatik Sistemleri ile ilişkili U-Th ve Nadir Toprak Element zenginleşmesinin kökeninin petrolojik evrim süreçleri içinde değerlendirilmesi, 2022 - 2024

Metrics

Publication: 26
Citation (WoS): 89
Citation (Scopus): 112
H-Index (WoS): 4
H-Index (Scopus): 5

Non Academic Experience

Company, Medithermal Enerji A.Ş., Geothermal Energy Consultancy

Medithermal Enerji A.Ş.

Institut für Geowissenschaften, Johannes Gutenberg-Universität Mainz

Company, Özmen Holding , Sis Enerji Üretim A.Ş

Özmen Holding Sis Enerji Üretim A.Ş.

Institut für Geowissenschaften, Johannes Gutenberg-Universität Mainz

University of Georgia, Atlanta,