

## Asst. Prof. ERDAL ŞEN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: G-5964-2013

Yoksis Researcher ID: 169735

### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Jeoloji Müh. Böl., Turkey 1997 - 2002

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Jeoloji Müh. Böl., Turkey 1994 - 1997

Undergraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Jeoloji Müh. Böl., Turkey 1990 - 1994

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Kula Bölgesinin (Batı Anadolu) Volkanolojik ve Petrolojik Gelişiminin İncelenmesi, Hacettepe Üniversitesi, Mühendislik Fakültesi, Jeoloji Mühendisliği Bölümü, 2002

Postgraduate, Erciyes Strato-volkanı'nın Volkanolojik ve Petrolojik Gelişiminin İncelenmesi, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği (YI) (Tezli), 1997

### Research Areas

Geological Engineering, Mineralogy-petrography, Petrography and Petrology, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Jeoloji Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Jeoloji Mühendisliği Bölümü, 2016 - 2018

Lecturer PhD, Hacettepe University, Mühendislik Fakültesi, Jeoloji Mühendisliği Bölümü, 2004 - 2016

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Jeoloji Mühendisliği Bölümü, 1996 - 2004

### Courses

JEM600-42 ÖZEL KONULAR, Postgraduate, 2016 - 2017  
JEO265 MİNERALOGİ, Undergraduate, 2016 - 2017  
JEO455-03 TASARIM VE PROJELENDİRME I, Undergraduate, 2016 - 2017  
JEO473 MAGMATİK PETROGRAFI, Undergraduate, 2016 - 2017  
JEO267 TAŞINIM OLAYLARI, Undergraduate, 2016 - 2017

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

- I. **Hydrothermal fluid circulation within the restless structural frame of Hasandağ volcanic system (Central Anatolia, Türkiye) inferred from Self-potential, CO<sub>2</sub>, and temperature measurements**  
DİKER C., ULUSOY İ., AKKAŞ E., ŞEN E., Aydın E., Gümüş E., Erkut V., ÇUBUKÇU H. E., Başar O., Çolak M., et al.  
Journal of Volcanology and Geothermal Research, vol.446, 2024 (SCI-Expanded)
- II. **Insight into a rift volcanism with the petrogenesis of ultramafic enclaves and the host basalts: Kula Volcanic Field, Western Anatolia, Turkey**  
ŞEN E., AYDAR E., Şen P., Gourgaud A.  
Italian Journal of Geosciences, vol.142, no.2, pp.291-315, 2023 (SCI-Expanded)
- III. **Multisource and temporal thermal infrared remote sensing of Hasandağ Stratovolcano (Central Anatolia, Turkey)**  
ULUSOY İ., DİKER C., ŞEN E., ÇUBUKÇU H. E., Gümüş E.  
Journal of Volcanology and Geothermal Research, vol.428, 2022 (SCI-Expanded)
- IV. **Evolution of mafic lavas in Central Anatolia: Mantle source domains**  
Furman T., Hanan B. B., Sjoblom M. P., KÜRKCÜOĞLU B., SAYIT K., ŞEN E., Sen P. A., Yurur T.  
GEOSPHERE, vol.17, no.6, pp.1631-1646, 2021 (SCI-Expanded)
- V. **Post-delamination magmatism in south-central Anatolia**  
Gall H., Furman T., Hanan B., KÜRKCÜOĞLU B., SAYIT K., YÜRÜR M. T., Sjoblom M. P., ŞEN E., Şen P. A.  
Lithos, vol.398, 2021 (SCI-Expanded)
- VI. **Volcanic unrest possibilities in response to recent Obruk seismic swarm on and around Hasandag stratovolcano (Central Anatolia, Turkey)**  
AYDAR E., DİKER C., ULUSOY İ., ŞEN E.  
COMPTES RENDUS GEOSCIENCE, vol.353, no.1, pp.1-18, 2021 (SCI-Expanded)
- VII. **Volcanic eruption eye-witnessed and recorded by prehistoric humans**  
ULUSOY İ., Sarıkaya M. A., Schmitt A. K., ŞEN E., Danisik M., GÜMÜŞ E.  
QUATERNARY SCIENCE REVIEWS, vol.212, pp.187-198, 2019 (SCI-Expanded)
- VIII. **Chlorine degassing constrained by cosmogenic Cl-36 and radiocarbon dating of early Holocene rhyodacitic lava domes on Erciyes stratovolcano, central Turkey**  
Sarıkaya M. A., Ciner A., Zreda M., ŞEN E., ERSOY O.  
JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.369, pp.263-275, 2019 (SCI-Expanded)
- IX. **Geochemistry of mafic lavas from Sivas, Turkey and the evolution of Anatolian lithosphere**  
KÜRKCÜOĞLU B., PICKARD M., SEN P., HANAN B. B., SAYIT K., Plummer C., ŞEN E., Yurur T., Furman T.  
LITHOS, vol.232, pp.229-241, 2015 (SCI-Expanded)
- X. **Identifying the Volcanic Eruption Depicted in a Neolithic Painting at Catalhoyuk, Central Anatolia, Turkey**  
SCHMITT A. K., DANISIK M., AYDAR E., ŞEN E., ULUSOY İ., LOVERA O. M.  
PLOS ONE, vol.9, no.1, 2014 (SCI-Expanded)
- XI. **Central Anatolian Plateau, Turkey: incision and paleoaltimetry recorded from volcanic rocks**  
AYDAR E., ÇUBUKÇU H. E., ŞEN E., AKIN L.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.22, no.5, pp.739-746, 2013 (SCI-Expanded)
- XII. **A Rhinocerotid Skull Cooked-to-Death in a 9.2 Ma-Old Ignimbrite Flow of Turkey**  
ANTOINE P., ORLIAC M. J., ATICI G., ULUSOY İ., ŞEN E., ÇUBUKÇU H. E., ALBAYRAK E., OYAL N., AYDAR E., SEN S.  
PLOS ONE, vol.7, no.11, 2012 (SCI-Expanded)

- XIII. **Volcanological evolution and caldera forming eruptions of Mt. Nemrut (Eastern Turkey)**  
 ULUSOY İ., ÇUBUKÇU H. E., AYDAR E., LABAZUY P., ERSOY O., ŞEN E., GOURGAUD A.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.245, pp.21-39, 2012 (SCI-Expanded)
- XIV. **Correlation of ignimbrites in the central Anatolian volcanic province using zircon and plagioclase ages and zircon compositions**  
 AYDAR E., SCHMITT A. K., ÇUBUKÇU H. E., AKIN L., ERSOY O., ŞEN E., Duncan R. A., ATICI G.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.213, pp.83-97, 2012 (SCI-Expanded)
- XV. **Mt. Nemrut volcano (Eastern Turkey): Temporal petrological evolution**  
 ÇUBUKÇU H. E., ULUSOY İ., AYDAR E., ERSOY O., ŞEN E., GOURGAUD A., GUILLOU H.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.209, pp.33-60, 2012 (SCI-Expanded)
- XVI. **Surface area and volume measurements of volcanic ash particles using micro-computed tomography (micro-CT): A comparison with scanning electron microscope (SEM) stereoscopic imaging and geometric considerations**  
 ERSOY O., ŞEN E., AYDAR E., TATAR İ., Celik H. H.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.196, pp.281-286, 2010 (SCI-Expanded)
- XVII. **Melting of crustal xenoliths within ascending basalt: Example from the Kula volcanic field, western Anatolia, Turkey**  
 Bayhan H., Aydar E., ŞEN E., Gourgaud A.  
 COMPTES RENDUS GEOSCIENCE, vol.338, no.4, pp.237-243, 2006 (SCI-Expanded)
- XVIII. **Interaction of asthenospheric and lithospheric mantle: The genesis of calc-alkaline volcanism at Erciyes Volcano, central Anatolia, Turkey**  
 Kurkcuoglu B., Sen E., Temel A., Aydar E., Gourgaud A.  
 INTERNATIONAL GEOLOGY REVIEW, vol.46, no.3, pp.243-258, 2004 (SCI-Expanded)
- XIX. **Volcanological evolution of Mount Erciyes stratovolcano and origin of the Valibaba Tepe ignimbrite (Central Anatolia, Turkey)**  
 Sen E., Kurkcuoglu B., Aydar E., Gourgaud A., Vincent P.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.125, pp.225-246, 2003 (SCI-Expanded)
- XX. **Morphological analysis of active Mount Nemrut stratovolcano, eastern Turkey: evidences and possible impact areas of future eruption**  
 AYDAR E., GOURGAUD A., Ulusoy I., DIGONNET F., LABAZUY P., Sen E., Bayhan H., Kurttas T., TOLLUOGLU A.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.123, pp.301-312, 2003 (SCI-Expanded)
- XXI. **Initial explosive phases during extrusion of volcanic lava domes: example from rhyodacitic dome of Dikkartin Dag, Erciyes stratovolcano, Central Anatolia, Turkey**  
 Sen E., Aydar E., Gourgaud A., Kurkcuoglu B.  
 COMPTES RENDUS GEOSCIENCE, vol.334, no.1, pp.27-33, 2002 (SCI-Expanded)
- XXII. **Trace-element modeling and source constraints for tholeiitic and calc-alkaline basalts from a depleted asthenospheric mantle source, Mt. Erciyes Stratovolcano, Turkey**  
 Kurkcuoglu B., Sen E., Temel A., Aydar E., Gourgaud A.  
 INTERNATIONAL GEOLOGY REVIEW, vol.43, no.6, pp.508-522, 2001 (SCI-Expanded)
- XXIII. **Geochemical approach to magmatic evolution of Mt Erciyes stratovolcano central Anatolia, Turkey**  
 Kurkcuoglu B., Sen E., Aydar E., Gourgaud A., Gundogdu N.  
 JOURNAL OF VOLCANOLOGY AND GEOTHERMAL RESEARCH, vol.85, pp.473-494, 1998 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Geochemical insights into mantle metasomatism from cogenetic plutonic xenoliths in pyroclastic deposits of Gölcük volcano and their alkaline host rocks (Isparta, SW Turkey)**  
 Şen P., ŞEN E., TEMEL A., Kieffer G., Gourgaud A.  
 Mediterranean Geoscience Reviews, vol.4, no.2, pp.247-272, 2022 (Scopus)
- II. **Surface expressions of morphostructural features at Hasandağ stratovolcano on DEM datasets**

- ULUSOY İ., DİKER C., ŞEN E., AYDIN E., AKKAŞ E., GÜMÜŞ E., ÇUBUKÇU H. E., ERKUT V.  
MOVIMENTA, vol.3, 2021 (Peer-Reviewed Journal)
- III. **Geochemical features and petrogenesis of Gokceada volcanism, Canakkale, NW Turkey**  
Sen P., Sari R., ŞEN E., Donmez C., Ozkumus S., Kucukefe S.  
BULLETIN OF THE MINERAL RESEARCH AND EXPLORATION, vol.161, pp.81-99, 2020 (ESCI)
- IV. **Petrological and geochemical features of Biga Peninsula granitoids, NW Anatolia, Turkey**  
Aydin U., Sen P., Ozmen O., ŞEN E.  
BULLETIN OF THE MINERAL RESEARCH AND EXPLORATION, vol.160, pp.81-115, 2019 (ESCI)
- V. **Hafif bir İHA ile bir Açık Maden Ocağının 3B Çok-bakılı Stereo Modellemesi, (3D Multi-view Stereo Modelling of an Open Mine Pit Using a Lightweight UAV)**  
ULUSOY İ., ŞEN E., TUNCER A., SÖNMEZ H., Bayhan H.  
Türkiye Jeoloji Bülteni, vol.60, pp.225-245, 2017 (Peer-Reviewed Journal)
- VI. **3D Multi-view Stereo Modelling of an Open Mine Pit Using a Lightweight UAV**  
ULUSOY İ., ŞEN E., TUNCER A., SÖNMEZ H., BAYHAN H.  
TURKIYE JEOLoji BULTENİ-GEOLOGICAL BULLETIN OF TURKEY, vol.60, no.2, pp.223-241, 2017 (ESCI)
- VII. **PETROGENETIC CHARACTERISTICS OF OYACA - KEDIKAYASI - BOYALIK ADAKITES IN SW ANKARA (CENTRALANATOLIA, TURKEY): EVIDENCE FOR SLAB MELT METASOMATISM**  
ŞEN E., ŞEN E.  
BULLETIN OF THE MINERAL RESEARCH AND EXPLORATION, vol.146, pp.81-91, 2013 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Microscopic Monitoring of Laboratory Based Physical Disintegration Ratio of Fibrous Zeolite Crystals from Cappadocian Altered Ignimbrites (Turkey)**  
AKKAŞ E., ÇUBUKÇU H. E., ERKUT V., AKIN KARAKÜLAH L., YURDAKUL Y., ULUSOY İ., ŞEN E.  
Cities on Volcanoes 10, Napoli, Italy, 2 - 07 September 2018, pp.1117
- II. **Self-Potential, Surface Temperature, CO2 measurements and related structural discontinuities on Mount Hasan, Turkey**  
DİKER C., ULUSOY İ., AKKAŞ E., ŞEN E., ÇUBUKÇU H. E., GÜMÜŞ E., BAŞAR O., AYDIN E., ERKUT V., KAYGISIZ N.  
Cities on Volcanoes 10, Napoli, 2 - 07 September 2018, pp.521
- III. **Revealing the age of a volcanic eruption in the Kula volcanic field (Turkey) eyewitnessed by Bronze-age people**  
ULUSOY İ., SARIKAYA M. A., Schmitt A. K., ŞEN E., Danisik M., GÜMÜŞ E.  
Cities on Volcanoes 10, 2 - 07 September 2018
- IV. **Acıgöl Maar Gölü'nün (Nevşehir, Orta Anadolu) Holosen Yaşlı Ostrakod Faunası ve Paleootamsal Özellikleri**  
TUNOĞLU C., TUNCER A., AYDAR E., ŞEN E., GÜMÜŞ B. A.  
71. Türkiye Jeoloji Kurultayı, 23 - 27 April 2018
- V. **Low Temperature Alteration of Zelve Ignimbrite (Cappadocia) Under Experimental Conditions**  
AKIN KARAKÜLAH L., ÇUBUKÇU H. E., AKKAŞ E., YURDAKUL Y., ERKUT V., ULUSOY İ., ŞEN E.  
European Geosciences Union General Assembly 2018, Viyana, Austria, 8 - 13 April 2018
- VI. **Hydrothermal fluid circulation and structural discontinuities on Mount Hasan, Turkey: preliminary results.**  
DİKER C., ULUSOY İ., AKKAŞ E., ŞEN E., ÇUBUKÇU H. E., GÜMÜŞ E., Başar O., Aydın E., Erkut V., Kaygisiz N.  
European Geosciences Union General Assembly 2018, 8 - 13 April 2018
- VII. **Geochemical Features of Multi Component Mantle Source Domains Beneath Central Anatolia 7th Geochemistry Symposium Symposium Abstract 16 18 Mayıs 2016 Antalya Türkiye**  
KÜRKCÜOĞLU B., Furman T., pickard M., ŞEN E., Hanan B., Şen P., SAYIT K., YÜRÜR M. T.  
Uluslararası katılımlı 7. Jeokimya Sempozyumu, Antalya, Turkey, 16 - 18 May 2016
- VIII. **In situ application of Ultrasonic Pulse Velocity measurements to determine the degree of zeolitic**

### **alteration of ignimbrite**

ÇUBUKÇU H. E., Yurdakul Y., Erkut V., AKKAŞ E., AKIN KARAKÜLAH L., ULUSOY İ., ŞEN E.  
European Geosciences Union General Assembly 2016, 17 - 22 April 2016

- IX. **In situ application of Ultrasonic Pulse Velocity measurements to determine the degree of zeolitic alteration of ignimbrites**  
ÇUBUKÇU H. E., YURDAKUL Y., ERKUT V., AKKAŞ E., AKIN KARAKÜLAH L., ULUSOY İ., ŞEN E.  
European Union of Geosciences (EGU 2016), 17 - 22 April 2016
- X. **In situ application of Ultrasonic Pulse Velocity measurements to determine the degree of zeolitic alteration of ignimbrites**  
ÇUBUKÇU H. E., Yurdakul Y., Erkut V., AKKAŞ E., AKIN L., ULUSOY İ., ŞEN E.  
European Geosciences Union General Assembly, 17 - 22 April 2016
- XI. **BİR İGİNİMBİRİTİN ALTERASYON ÖZELLİKLERİNİN X IŞINI MİKROTOMOGRAFİ TEKNİĞİYLE BELİRLENMESİ**  
ÇUBUKÇU H. E., Yurdakul Y., AKKAŞ E., AKIN KARAKÜLAH L., Erkut V., ULUSOY İ., ŞEN E.  
69. Türkiye Jeoloji Kurultayı, Turkey, 11 - 15 April 2016
- XII. **Kapadokya nin eriyonit içeren ignimbiritleri süregelen bir sorun Erionite Bearing Ignimbrites of Cappadocia An Ongoing Problem**  
ÇUBUKÇU H. E., YURDAKUL Y., AKKAŞ E., AKIN KARAKÜLAH L., ŞEN E., ULUSOY İ.  
68. Türkiye Jeoloji Kurultayı, Ankara, Turkey, 16 - 18 April 2015
- XIII. **Kapadokya nın Eriyonit içeren ignimbiritleri Süregelen bir sorun**  
ÇUBUKÇU H. E., YURDAKUL Y., AKKAŞ E., AKIN L., ŞEN E., ULUSOY İ.  
68. Türkiye Jeoloji Kurultayı, Ankara, Turkey, 6 - 10 April 2015
- XIV. **Carcinogen Erionite bearing ignimbrites in Cappadocia Turkey**  
ÇUBUKÇU H. E., ŞEN E., YURDAKUL Y., AKIN L., AKKAŞ E., ULUSOY İ.  
Cities on Volcanoes 8, Yogyakarta, Indonesia, 9 - 13 September 2014
- XV. **Kapadokya Volkanizmasının Petrolojik Evrimi**  
ÇUBUKÇU H. E., ŞEN E., AYDAR E., AKIN L., DUNCAN R.  
67. Türkiye Jeoloji Kurultayı, Ankara, Turkey, 14 - 18 April 2014
- XVI. **Peralkaline volcanism in a continental collisional setting Mount Nemrut volcano Eastern Anatolia**  
ÇUBUKÇU H. E., ULUSOY İ., AYDAR E., ŞEN E., ERSOY O., GOURGAUD A.  
EGU 2012, VİYANA, Austria, 22 - 27 April 2012, vol.14, pp.12949
- XVII. **Eruption and emplacement dynamics of a cinder cone named Karnıyarık Tepe in Cappadocia region Turkey**  
ERSOY O., ŞEN E., AYDAR E., ÇUBUKÇU H. E., ULUSOY İ., ANÇEL A., ÇİFLİKLİ M., ATICI G.  
EGU 2011, VİYANA, Austria, 3 - 08 April 2011, vol.13, pp.9440
- XVIII. **Geochemical Characteristics of Quaternary Rhyolitic Volcanism in Acigöl area Cappadocia Türkiye**  
ÇUBUKÇU H. E., ŞEN E., AYDAR E.  
EGU 2010, VİYANA, Austria, 2 - 07 May 2010, vol.12, pp.14497
- XIX. **Timing of Cappadocian volcanic events and its significance on the development of Central Anatolian Orogenic Plateau**  
AYDAR E., ÇUBUKÇU H. E., ŞEN E., ERSOY O., DUNCAN R., ÇİNER T. A.  
EGU 2010, Viyana, Austria, 2 - 07 May 2010, vol.12, pp.10147
- XX. **Quaternary Bimodal Volcanism in Acigol area Cappadocia Türkiye**  
ÇUBUKÇU H. E., AYDAR E., ŞEN E., BAYHAN H.  
EGU 2009, VİYANA, Austria, 19 - 24 April 2009, vol.11, pp.12441

### **Supported Projects**

ULUSOY İ., SARIKAYA M. A., Project Supported by Higher Education Institutions, Çakallar cüruf konisi ve lav akıntısının kozmojenik yöntemlerle tarihlendirilmesi, 2016 - 2018

ŐEN E., UBUKU H. E., Project Supported by Higher Education Institutions, Hacettepe niversitesi Jeoloji Mhendisliđi  
Taramalı Elektron Mikroskop Laboratuvarı Yksek Voltaj nitesinin Yenilenmesi, 2015 - 2016

## **Metrics**

Publication: 51

Citation (WoS): 435

Citation (Scopus): 531

H-Index (WoS): 13

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