

## **Prof. Gürsel Sunal**

### **Personal Information**

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### **International Researcher IDs**

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ScopusID: 15069821100

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### **Education Information**

Doctorate, Universitat Tübingen, Geochemistry-Geodynamics, Germany 2001 - 2008

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği, Turkey 1994 - 1997

Undergraduate, Istanbul Technical University, Maden Fakültesi, Jeoloji Mühendisliği Bölümü, Turkey 1989 - 1994

### **Foreign Languages**

English

### **Dissertations**

Doctorate, Geological evolution of the Strandja Massif (Thrace, Turkey), Eberhard Kals Universitaet Tübingen, Jeokimya-Jeodinamik, Jeokimya, 2008

Postgraduate, Cide-Kuruçâile Civarının Jeolojisi, İstanbul Teknik Üniversitesi, Maden Fakültesi, Jeoloji Müh. / Genel Jeoloji A.B.D., 1998

### **Research Areas**

Technical Sciences, Geological Engineering, General Geology, Areal Geology (general,maps and charts), Tectonics (Paleotectonics, Neotectonics, Seismotectonics), Structural Geology, Mineralogy-petrography, Geochronology

### **Academic Titles / Tasks**

Associate Professor, Istanbul Technical University, Maden, Jeoloji Mühendisliği, 2015 - Continues

Assistant Professor, Istanbul Technical University, Maden, Jeoloji Mühendisliği, 2010 - Continues

Research Assistant, Istanbul Technical University, Maden, Jeoloji Mühendisliği, 1997 - 2010

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

- I. Reconstructing orogens without biostratigraphy: The Saharides and continental growth during the final assembly of Gondwana-Land

- Şengör A. M. C., Lom N., Zabıcı C., Sunal G., Oner T.  
Proceedings of the National Academy of Sciences of the United States of America, vol.117, no.51, pp.32278-32284, 2020 (SCI-Expanded)
- II. Evaluation of the Plio-Quaternary tectonic stress regime from fault kinematic analysis in the lake Van Basin (Eastern Anatolia)**  
Selcuk A. S., ERTURAÇ M. K., Sunal G., Çakır Z.  
JOURNAL OF STRUCTURAL GEOLOGY, vol.140, 2020 (SCI-Expanded)
- III. Izmir-Ankara Suture as a Triassic to Cretaceous Plate Boundary-Data From Central Anatolia**  
Okay A., Sunal G., Sherlock S., Kylander-Clark A. R. C., Özcan E.  
TECTONICS, vol.39, no.5, 2020 (SCI-Expanded)
- IV. Uplift of Anatolia**  
Okay A., Zattin M., Özcan E., Sunal G.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.29, no.5, pp.696-713, 2020 (SCI-Expanded)
- V. Reconstructing the deformation of the North Anatolian Fault Zone through restoring the Oligo-Miocene exhumation pattern of the Almacık Block (northwestern Turkey) based on the apatite (U-Th)/He ages**  
Sunal G., Erturac M. K., Gutsuz P., Dunkl I., Çakır Z.  
CANADIAN JOURNAL OF EARTH SCIENCES, vol.56, no.11, pp.1202-1217, 2019 (SCI-Expanded)
- VI. Quaternary evolution of the Suluova Basin: implications on tectonics and palaeoenvironments of the Central North Anatolian Shear Zone**  
ERTURAÇ M. K., Erdal O., Sunal G., Tuysuz O., Sen S.  
CANADIAN JOURNAL OF EARTH SCIENCES, vol.56, no.11, pp.1239-1261, 2019 (SCI-Expanded)
- VII. The Early Eocene Ekmekci granodiorite porphyry in the Karacabey region (Sakarya Zone, NW Turkey)**  
Sunal G., ERTURAÇ M. K., Topuz G., Okay A., Zack T.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.28, no.4, pp.589-602, 2019 (SCI-Expanded)
- VIII. The Thrace Basin and the Black Sea: the Eocene-Oligocene marine connection**  
Okay A., Ozcan E., Hakyemez A., Siyako M., Sunal G., Kylander-Clark A. R. C.  
GEOLOGICAL MAGAZINE, vol.156, no.1, pp.39-61, 2019 (SCI-Expanded)
- IX. Geochemical and Petrographic Analysis of Late Bronze Age Cypriot Ceramics (White Slip I and II and Monochrome) from Tell Atchana/Alalakh (Hatay) in the Amuq Valley**  
HACIOSMANOGLU S., KIBAROGLU M., Sunal G., KOZAL E., GUTSUZ P.  
ARCHAEOMETRY, vol.60, no.3, pp.471-488, 2018 (SCI-Expanded)
- X. The Strandja Massif and the stanbul Zone were once parts of the same palaeotectonic unit: new data from Triassic detrital zircons**  
Ülgen S. C., Lom N., Sunal G., Gerdes A., Şengör A. M. C.  
GEODINAMICA ACTA, vol.30, no.1, pp.212-224, 2018 (SCI-Expanded)
- XI. Metamorphism, magmatism, and exhumation history of the Tavşanlı Zone, NW Turkey: new petrological constraints**  
Özdamar Ş., Sunal G., demiroğlu M., Yalıtrak C., BİLLOR M. Z., GEORGİEV S., HAMES W., DUNKL I., AYDIN H. C.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.27, no.4, pp.269-293, 2018 (SCI-Expanded)
- XII. A new chronostratigraphy (Ar-40-Ar-39 and U-Pb dating) for the middle section of the Burdur-Fethiye Shear Zone, SW Turkey (eastern Mediterranean)**  
Elitez İ., Yalıtrak C., Sunal G.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.27, no.5, pp.405-427, 2018 (SCI-Expanded)
- XIII. The Tectonics of the Altaids: Crustal Growth During the Construction of the Continental Lithosphere of Central Asia Between similar to 750 and similar to 130 Ma Ago**  
Şengör A. M. C., Natalini B., Sunal G., van der Voo R.  
ANNUAL REVIEW OF EARTH AND PLANETARY SCIENCES, VOL 46, vol.46, pp.439-494, 2018 (SCI-Expanded)
- XIV. Geochemical characterization of clay deposits in the Amuq Valley (Southern Turkey) and the implications for archaeometric study of ancient ceramics**

## Articles Published in Other Journals

- I. **The phanerozoic palaeotectonics of Turkey. Part I: an inventory**  
ŞENGÖR A. M. C., LOM N., SUNAL G., ZABCI C., SANÇAR T.  
Mediterranean Geoscience Reviews, vol.1, no.1, pp.91-161, 2019 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Micro-tectonics of the Northern Kapıdağ Pluton (NW Turkey)**  
ÜNAL A., GÜRASLAN İ. N., ALTUNKAYNAK Ş., YİĞİTBAŞ E., SUNAL G.  
IESCA, 13 - 18 October 2019
- II. **Shoreline evolution of the northwestern Turkey (Marmara Sea-North Aegean Sea) evidenced by sea-level markers and relative sea-level changes: preliminary assessment**  
TARI U., YALTIRAK C., SUNAL G., OLĞUN KIYAK N.  
20th Congress of the International Union for Quaternary Research, Dublin, Ireland, 25 - 31 July 2019
- III. **Shoreline evolution of the northwestern Turkey (Marmara Sea-North Aegean Sea) evidenced by coastal deposits, marine notches and abrasion platforms, and relative sea-level changes: preliminary results**  
TARI U., YALTIRAK C., SUNAL G.  
3rd MOPP-MEDFLOOD (INQUA-CMP 1603P) Meeting, Sicilya, Italy, 22 - 24 September 2018
- IV. **Eocene- Oligocene connection between the Black Sea and Thrace Basin: The Çatalca Gap**  
OKAY A., ÖZCAN E., HAKYEMEZ A., SIYAKO M., SUNAL G., KYLANDER CLARK A.  
Geology and Hydrocarbon potential of the Balkan-Black Sea Region, 18 - 22 September 2017
- V. **The Protogonos: A Long Lived Magmatic Arc Along the Northern Margin of Gondwana-Land and Its Disruption During the Hercynian Orogeny**  
LOM CEBEKİ N., SUNAL G., SAĞDÎC N., ŞENGÖR A. M. C.  
Geological Society of America, 22 - 25 October 2017
- VI. **EOCENE – OLIGOCENE CONNECTION BETWEEN THE BLACK SEA AND THE THRACE BASIN: THE ÇATALCA GAP**  
OKAY A., ÖZCAN E., HAKYEMEZ A., SİYAKO M., SUNAL G., KYLANDER CLARK A.  
5th International Conference on the Geology and Hydrocarbon Potential of the Balkan-Black Sea region, Varna, Bulgaria, 18 - 22 September 2017, vol.1, pp.311
- VII. **The opening of the Black Sea and its effects on the provenance of the Cretaceous turbidites, Central Pontides**  
AKDOGAN R., OKAY A., SUNAL G., TARİ G., DUNKL I., MEİNHOLD G., KYLANDER CLARK A.  
Sedimentology Working Group 2017 Workshop, Rize, Turkey, 14 - 17 September 2017, vol.1, pp.16-17
- VIII. **Cretaceous Geological Evolution of the Central Pontides**  
OKAY A., ALTINER D., SUNAL G., AKDOGAN R., ALTINER S., SIMMONS m.  
10th International Symposium on the Cretaceous, Vienna, Austria, 21 - 26 August 2017, vol.120, pp.203
- IX. **A new chronostratigraphy (40Ar-39Ar and U-Pb Dating) for the Middle Section of the Burdur-Fethiye Shear Zone, SW Turkey**  
ELİTEZ İ., YALTIRAK C., SUNAL G.  
EGU General Assembly 2017, 22 - 28 April 2017
- X. **EVOLUTION OF THE İZMİR-ANKARA SUTURE SOUTHWEST OF BEYPAZARI IN CENTRAL ANATOLIA**  
OKAY A., SUNAL G., ÖZCAN E., KYLANDER CLARK A., SHERLOCK S.  
70. TÜRKİYE JEOLOJİ KURULTAYI, Ankara, Turkey, 10 - 14 April 2017, vol.1, pp.512-513

- XI. **Main stratigraphic and structural features of the Palaeozoic sequence of Istanbul: Petroleum systems of Alpine-Mediterranean Fold Belts and Basins**  
ÜLGEN S. C., LOM CEBECİ N., SUNAL G., natalin b., ŞENGÖR A. M. C.  
AAPG Europe Region European regional Conference & Exhibition, 19 - 20 May 2016
- XII. **Preliminary results on the tectonic activity of the Ovacık Fault (Malatya-Ovacık Fault Zone, Turkey): Implications of the morphometric analyses**  
Yazıcı M., Zabci C., Sançar T., Sunal G., Natalin B.  
EGU General Assembly, Viyana, Austria, 19 - 24 April 2016, pp.6541
- XIII. **structural features and tectonic evolution of Palaeozoic sequence in Istanbul Zone NW Turkey**  
ÜLGEN S. C., LOM CEBECİ N., SUNAL G., NATALİN B., ŞENGÖR A. M. C.  
Geological Society of America, Abstracts with Programs, 1 - 04 November 2015
- XIV. **Kuzey Anadolu Fayı Mudurnu Vadisi Segmenti'nin Kayma Hızının Belirlenmesi**  
Erturaç M. K., Zabci C., Sunal G.  
ATAG-19, Sakarya, Turkey, 7 - 09 October 2015, pp.45
- XV. **Geological evolution of the Central Pontides**  
Okay A., ALTINER D., Sunal G., Aygul M., Akdogan R., ALTINER S., Simmons M.  
Conference on Petroleum Geology of the Black Sea, London, Canada, 6 - 07 October 2015, vol.464, pp.33-67
- XVI. **The evolution of the Altaids from the Ediacaran to the earliest Cretaceous mountain and continent making in Asia**  
ŞENGÖR A. M. C., boris n., VAN DER VOO R., SUNAL G.  
Geological Society of America, Abstracts with Programs, 1 - 04 November 2015
- XVII. **The eastern extent of the Hercynian orogenic belt The history of the İstanbul Zone before and during the assembly of the Pangaea**  
LOM CEBECİ N., ÜLGEN S. C., ÖZGÜL n., SUNAL G., İŞSEVEN T., BORİS n., ŞENGÖR A. M. C.  
The Variscan Belt: Correlations and Plate Dynamics, 9 - 11 June 2015
- XVIII. **The eastern extent of the Hercynian orogenic belt the history of the İstanbul Zone before and during the assembly of Pangaea**  
LOM CEBECİ N., boris n., ÜLGEN S. C., Özgül N., SUNAL G., İŞSEVEN T., boris n., ŞENGÖR A. M. C.  
Variscan 2015, 9 - 11 June 2015
- XIX. **Orta Pontidler Mesozoyik deki evrimi**  
OKAY A., SUNAL G., ALTINER D., TÜYSÜZ O., KESKİN M., KILIÇ A. M., SHERLOCK s., KYLANDER CLARCK a.  
IPETGAS 2015, 27 - 29 May 2015
- XX. **New Evidence for opening of the Black Sea U Pb analysis of detrital zircons and paleocurrent measurements of the Early Cretaceous turbidites**  
REMZİYE A., OKAY A., SUNAL G., GABOR T., ARC K. C.  
European Geosciences Union General Assembly 2015 (EGU 2015), Vienna, Austria, 12 - 17 April 2015
- XXI. **Çataldağ plütonik kompleksinde (KB Anadolu) gözlenen sürek ve üzerleyen kırılgan deformasyonun kökeni**  
UNAL A., KAMACI O., Altunkaynak Ş., SUNAL G., Billor M. Z.  
66. Türkiye Jeoloji Kurultayı, Ankara, Turkey, 2 - 06 April 2013, pp.1
- XXII. **Making continental crust in extensional tectonics: Spatial, Temporal and Petrologic Evolution of Cenozoic Granitoid Magmatism in NW Turkey**  
Altunkaynak Ş., SUNAL G., Genç Ş. C., GERTISSE R., DILEK Y.  
7th Hutton Symposium on Granites and related rocks, Avila, Spain, 4 - 09 July 2011, pp.1
- XXIII. **2D and 3D paleoseismological investigations on Sapanca-Akyazı segment of the 1999 İzmit Earthquake surface rupture, North Anatolian Fault, Turkey**  
Dikbaş A., Akyüz H. S., Zabci C., Sunal G., Ferry M., Yalçiner C. Ç., Meghraoui M.  
EGU General Assebly, Viyana, Austria, 1 - 05 April 2007, pp.10601
- XXIV. **Paleoseismological investigations on 1999 İzmit earthquake surface rupture**  
Dikbaş A., Akyüz H. S., Zabci C., Sunal G., Ferry M., Yalçiner C. Ç., Altunel E.  
International Workshop on Comparative Studies of the North Anatolian Fault (NW Turkey) and the San Andreas

- Fault (Southern California), İstanbul, Turkey, 1 - 04 July 2006, pp.48
- XXV. **17 Ağustos 1999 yüzey kırığı üzerinde paleosismoloji çalışmaları**  
Dikbaş A., Akyüz H. S., Zabcı C., Sunal G., Karabacak V., Yalçiner C. Ç., Ferry M., Meghraoui M., Aksoy M. E.  
ATAG-9, Sivas, Turkey, 22 - 24 September 2005, pp.11
- XXVI. **İstanbul Zonu'nun yapısal evrimine bir yaklaşım; Denizliköy (Gebze) bölgesi (An Approach to the structural evolution of Istanbul Zone; Denizlikoy (Gebze) area)**  
Zabcı C., Akyüz H. S., Sunal G.  
İstanbul'un Jeolojisi Sempozyumu, İstanbul, Turkey, 1 - 02 December 2002, pp.5-14

## Supported Projects

Sunal G., ERTURAÇ K., Project Supported by Higher Education Institutions, Almacık Bloğu ve güneyinde yer alan farklı zonlara ait magmatik kayaçların yaşlandırılmaları ve zonlar içerisindeki jeolojik önemleri, 2018 - 2019

Sunal G., Project Supported by Higher Education Institutions, Amik Ovasında Yer Alan Mukiş Krallığının Başkenti Alalakh'dan Elde Edilen Geç Bronz Çağı Kıbrıs Seramiklerinin Kökenlerinin Arkeometrik Yöntemlerle Araştırılması II, 2013 - 2018

Elitez İ., Yaltırak C., Sunal G., TUBITAK Project, Burdur-Fethiye Makaslama Zonu'nun GB Türkiye Neotektoniği İçerisinde Yeri: Miyosen-Pliyosen Gölsel Ve Karasal Sedimanter Birimler ile Ara Katkılı Volkanik Kayaçların Radyometrik Yaslandırılması Ve İstiflerin Gerçek Kronostratigrafik Konumlarının Ortaya Çıkarılması, 2015 - 2017

Sunal G., Project Supported by Higher Education Institutions, Amik Ovasında Yer Alan Mukiş Krallığı'nın Başkenti Alalakh'dan Elde Edilen Geç Bronz Çağı Kıbrıs Seramiklerinin Kökenlerinin Arkeometrik Yöntemlerle Araştırılması, 2012 - 2014

Sunal G., Project Supported by Higher Education Institutions, ORTA PONTİDLERİN KUZEYİNDE YER ALAN TEMEL METAMORFİKLERİN OLUŞUM EVRİMLER, 2009 - 2014

## Metrics

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H-Index (Scopus): 20