

Prof. NUHAN PURALI

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International Researcher IDs

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Education Information

Doctorate, Karolinska Institutet (Karolinska Institute), Medical Faculty, Department Of Physiology, Sweden 1990 - 1997

Expertise In Medicine, Istanbul University, Cerrahpaşa Tıp Fakültesi, Turkey 1988 - 1992

Undergraduate, Hacettepe University, Tıp Fakültesi, Turkey 1979 - 1987

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Mechanisms of Adaptation in a Mechanoreceptor, Karolinska Institutet (Karolinska Institute), 1997

Research Areas

Medicine, Health Sciences, Fundamental Medical Sciences, Biophysics

Academic Titles / Tasks

Professor, Hacettepe University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2003 - Continues

Associate Professor, Hacettepe University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 1999 - 2003

Research Assistant, Istanbul University, Cerrahpaşa Tıp Fakültesi, Dahili Tıp Bilimleri Bölümü, 1998 - 2002

Assistant Professor, Hacettepe University, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 1997 - 1999

Research Assistant, Karolinska Institutet (Karolinska Institute), Tıp Fakültesi, Temel Tıp Bilimleri, 1990 - 1997

Academic and Administrative Experience

Hacettepe Üniversitesi, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2011 - Continues

Hacettepe Üniversitesi, Tıp Fakültesi, 2012 - 2016

Hacettepe Üniversitesi, Tıp Fakültesi, Temel Tıp Bilimleri Bölümü, 2012 - 2016

Advising Theses

- PURALI N., Hareket bozukluklarının tanı ve takibi için kolay taşınır alternatif bir yöntem geliştirilmesi, Postgraduate, B.SAĞLAM(Student), 2017
- PURALI N., Kerevitte (*astacus leptodactylus*) varsayılan voltaj kapılı sodyum kanalı α alt birimi geninin klonlanması ve kanal proteininin moleküler özelliklerinin belirlenmesi, Doctorate, Ç.COŞKUN(Student), 2016
- PURALI N., Cloning and determination of tissue specific expression pattern of *Astacus leptodactylus* Na⁺/Ca²⁺ exchanger gene, Postgraduate, B.ERGİN(Student), 2014
- PURALI N., Mathematical modeling of gate control theory, Postgraduate, E.AĞI(Student), 2009
- PURALI N., Bir reseptör nöronda lidokain etkisiyle oluşan spontan patlayıcı impuls cevaplarının araştırılması, Postgraduate, M.BATU(Student), 2004

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Cloning and in silico investigation of a putative voltage-gated calcium channel gene and protein in *Astacus leptodactylus***
PURALI N., SAĞLAM B., ERGİN B., Beyatlı N. C., Arslan K., BAŞTUĞ T.
Turkish Journal of Biochemistry, vol.48, no.6, pp.675-681, 2023 (SCI-Expanded)
- II. **Effect of different sealer activation techniques on dentinal tubule penetration**
KELEŞ A., ASKERBEYLİ ÖRS S., PURALI N., KÜÇÜKKAYA EREN S.
Australian Endodontic Journal, vol.49, no.3, pp.470-475, 2023 (SCI-Expanded)
- III. **Development of multistage recombinant protein vaccine formulations against toxoplasmosis using a new chitosan and porin based adjuvant system**
PARMAKSIZ S., Gul A., Alak S. E., Karakavuk M., Can H., Gul C., Karakavuk T., Lopez-Macias C., PURALI N., Doskaya M., et al.
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.626, 2022 (SCI-Expanded)
- IV. **De novo cloning and functional characterization of potassium channel genes and proteins in the crayfish *Astacus leptodactylus* (Eschscholtz, 1823) (Decapoda: Astacidea: Astacidae)**
ERGİN B., SAĞLAM B., TAŞKIRAN Z. E., BAŞTUĞ T., PURALI N.
JOURNAL OF CRUSTACEAN BIOLOGY, vol.42, no.1, 2022 (SCI-Expanded)
- V. **Development and in vitro evaluation of a new adjuvant system containing *Salmonella Typhi* porins and chitosan**
YÜKSEL S., PEKCAN M., PURALI N., ESENDAĞLI G., Tavukcuoglu E., Rivero-Arredondo V., Ontiveros-Padilla L., Lopez-Macias C., ŞENEL S.
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.578, 2020 (SCI-Expanded)
- VI. **Dentinal Tubule Penetration and Retreatability of a Calcium Silicate-based Sealer Tested in Bulk or with Different Main Core Material**
EYMİRLİ A., DENİZ SUNGUR D., Uyanık O., PURALI N., Nagas E., ÇEHRELİ Z. C.
JOURNAL OF ENDODONTICS, vol.45, no.8, pp.1036-1040, 2019 (SCI-Expanded)
- VII. **Effect of ultrasonic activation on dentinal tubule penetration of calcium silicate-based cements**
AKSEL H., Arslan E., PURALI N., Uyanık O., Nagas E.
MICROSCOPY RESEARCH AND TECHNIQUE, vol.82, no.5, pp.624-629, 2019 (SCI-Expanded)
- VIII. **Cloning of a putative sodium/calcium exchanger gene in the crayfish**
ERGİN B., PURALI N.
INVERTEBRATE NEUROSCIENCE, vol.18, no.3, 2018 (SCI-Expanded)
- IX. **Recombinant amelogenin regulates the bioactivity of mouse cementoblasts in vitro**
HAKKI S., Bozkurt S. B., Tuerkay E., Dard M., PURALI N., Goetz W.
INTERNATIONAL JOURNAL OF ORAL SCIENCE, vol.10, pp.1-10, 2018 (SCI-Expanded)
- X. **Efficacy of different irrigant protocols and application systems on sealer penetration using a stepwise CLSM analysis**
AKSEL H., Eren S. K., PURALI N., SERPER A., Azim A. A.

MICROSCOPY RESEARCH AND TECHNIQUE, vol.80, no.12, pp.1323-1327, 2017 (SCI-Expanded)

- XI. **Fast calcium transients translate the distribution and conduction of neural activity in different regions of a single sensory neuron**
PURALI N.
INVERTEBRATE NEUROSCIENCE, vol.17, no.3, 2017 (SCI-Expanded)
- XII. **Effect of a Low Surface Tension Vehicle on the Dentinal Tubule Penetration of Calcium Hydroxide and Triple Antibiotic Paste**
SUNGUR D., AKSEL H., PURALI N.
JOURNAL OF ENDODONTICS, vol.43, no.3, pp.452-455, 2017 (SCI-Expanded)
- XIII. **Cloning and molecular characterization of a putative voltage-gated sodium channel gene in the crayfish**
çoşkun C., PURALI N.
INVERTEBRATE NEUROSCIENCE, vol.16, no.2, 2016 (SCI-Expanded)
- XIV. **Comparison of the efficiency and relevancy of reference genes in crayfish tissue samples**
ERGİN B., PURALI N.
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.41, no.3, pp.144-149, 2016 (SCI-Expanded)
- XV. **Pyrin-PSTPIP1 colocalises at the leading edge during cell**
Akkaya-Ulum Y. Z., Balci-Peynircioglu B., PURALI N., YILMAZ E.
CELL BIOLOGY INTERNATIONAL, vol.39, no.12, pp.1384-1394, 2015 (SCI-Expanded)
- XVI. **Investigation of the inflammatory cell migration process in familial Mediterranean fever**
Ulum Y. A., Avci E., Batu E., KARADAĞ Ö., ÖZEN S., PURALI N., YILMAZ E., PEYNİRCİOĞLU B.
Pediatric Rheumatology, vol.13, no.1, 2015 (SCI-Expanded)
- XVII. **Mutation in TOR1AIP1 encoding LAP1B in a form of muscular dystrophy: A novel gene related to nuclear envelopathies**
Kayman-Kurekci G., TALİM B., KORKUSUZ P., Sayar N., Sarioglu T., Oncel I., Sharafi P., Gundesli H., Balci-Hayta B., PURALI N., et al.
NEUROMUSCULAR DISORDERS, vol.24, no.7, pp.624-633, 2014 (SCI-Expanded)
- XVIII. **A novel desmin mutation leading to autosomal recessive limb-girdle muscular dystrophy: distinct histopathological outcomes compared with desminopathies.**
Cetin N., Balci-Hayta B., Gundesli H., KORKUSUZ P., PURALI N., TALİM B., Tan E., Selcen D., Erdem-Ozdamar S., Dincer P. R.
Journal of medical genetics, vol.50, no.7, pp.437-43, 2013 (SCI-Expanded)
- XIX. **Periodontal ligament cell behavior on different titanium surfaces**
Hakki S. S., KORKUSUZ P., PURALI N., Korkusuz F., Bozkurt B. S., Hakki E. E., ÖNDER M. T., Gorur I., NOHUTCU R. M., Timucin M., et al.
ACTA ODONTOLOGICA SCANDINAVICA, vol.71, pp.906-916, 2013 (SCI-Expanded)
- XX. **Attachment, proliferation and collagen type I mRNA expression of human gingival fibroblasts on different biodegradable membranes**
Hakki S. S., KORKUSUZ P., PURALI N., Bozkurt B., Kus M., Duran I.
CONNECTIVE TISSUE RESEARCH, vol.54, pp.260-266, 2013 (SCI-Expanded)
- XXI. **Osteogenic differentiation of MC3T3-E1 cells on different titanium surfaces**
Hakki S. S., Bozkurt S. B., Hakki E. E., KORKUSUZ P., PURALI N., Koc N., Timucin M., Ozturk A., Korkusuz F.
BIOMEDICAL MATERIALS, vol.7, no.4, 2012 (SCI-Expanded)
- XXII. **Periodontal ligament fibroblast response to root perforations restored with different materials - a laboratory study**
Hakki S. S., Bozkurt S. B., Ozcopur B., PURALI N., Belli S.
INTERNATIONAL ENDODONTIC JOURNAL, vol.45, no.3, pp.240-248, 2012 (SCI-Expanded)
- XXIII. **Use of Mesenchymal Stem Cells and Darbepoetin Improve Ischemia-Induced Acute Kidney Injury Outcomes**
ALTUN B., Yilmaz R., Aki T., Akoglu H., Zeybek D., Piskinpasa S., Uckan D., PURALI N., KORKUSUZ P., Turgan C.
AMERICAN JOURNAL OF NEPHROLOGY, vol.35, no.6, pp.531-539, 2012 (SCI-Expanded)

- XXIV. **Antidromic potential spread modulates the receptor responses in the stretch receptor neurons of the crayfish**
Purali N.
PFLUGERS ARCHIV-EUROPEAN JOURNAL OF PHYSIOLOGY, vol.462, no.6, pp.821-834, 2011 (SCI-Expanded)
- XXV. **Chitosan based delivery systems for mucosal immunization against bovine herpesvirus 1 (BHV-1)**
Gunbeyaz M., Faraji A., Ozkul A., PURALI N., ŞENEL S.
EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol.41, pp.531-545, 2010 (SCI-Expanded)
- XXVI. **Comparison of Er,Cr:YSGG Laser and Hand Instrumentation on the Attachment of Periodontal Ligament Fibroblasts to Periodontally Diseased Root Surfaces: An In Vitro Study**
Hakki S. S., KORKUSUZ P., Berk G., Dundar N., Saglam M., Bozkurt B., PURALI N.
JOURNAL OF PERIODONTOLOGY, vol.81, no.8, pp.1216-1225, 2010 (SCI-Expanded)
- XXVII. **Establishment of Green Fluorescent Protein Expressing CHO Cells by Stable Transfection Using Activated Dendrimers and G418 Selection**
CELTİKCI B., PURALI N., ÖZKARA H. A.
TURKISH JOURNAL OF BIOCHEMISTRY-TURK BIYOKIMYA DERGISI, vol.35, no.4, pp.340-343, 2010 (SCI-Expanded)
- XXVIII. **Interaction of MC3T3-E1 cells with titanium implants**
KORKUSUZ P., Hakki S. S., PURALI N., Gorur I., Onder E., Nohutcu R., Koc N., Timucin M., Ozturk A., Korkusuz F.
EKLEM HASTALIKLARI VE CERRAHISI-JOINT DISEASES AND RELATED SURGERY, vol.19, no.2, pp.84-90, 2008 (SCI-Expanded)
- XXIX. **Sex-related effects on diabetes-induced alterations in calcium release in the rat heart**
YARAS N., TUNCAY E., Purali N., Sahinoglu B., VASSORT G., TURAN B.
AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY, vol.293, no.6, 2007 (SCI-Expanded)
- XXX. **Effects of diabetes on ryanodine receptor Ca release channel (RyR2) and Ca²⁺ homeostasis in rat heart**
YARAS N., UGUR M., OZDEMIR S., GURDAL H., Purali N., LACAMPAGNE A., VASSORT G., TURAN B.
DIABETES, vol.54, no.11, pp.3082-3088, 2005 (SCI-Expanded)
- XXXI. **Structure and function relationship in the abdominal stretch receptor organs of the crayfish**
Purali N.
JOURNAL OF COMPARATIVE NEUROLOGY, vol.488, no.4, pp.369-383, 2005 (SCI-Expanded)
- XXXII. **Stimulation of GABA release by scorpion venom in an isolated synapse in the crayfish (*Astacus leptodactylus*)**
Purali N.
TOXICON, vol.41, no.3, pp.383-389, 2003 (SCI-Expanded)
- XXXIII. **Lidocaine diminishes arrhythmia by *Leiurus quinquestriatus quinquestriatus* venom in rats**
Purali N., Yagcioglu S.
FUNDAMENTAL & CLINICAL PHARMACOLOGY, vol.16, no.3, pp.227-235, 2002 (SCI-Expanded)
- XXXIV. **Firing properties of the soma and axon of the abdominal stretch receptor neurons in the crayfish (*Astacus leptodactylus*)**
Purali N.
GENERAL PHYSIOLOGY AND BIOPHYSICS, vol.21, no.2, pp.205-226, 2002 (SCI-Expanded)

Articles Published in Other Journals

- I. **De Novo Cloning and Functional Characterization of a Mechanosensitive Piezo-Like Ion Channel in the Crayfish**
ERGİN B., SAĞLAM B., Arslan K., COŞKUN BEYATLI N., TAŞKIRAN Z. E., BAŞTUĞ T., PURALI N.
Cellular physiology and biochemistry : international journal of experimental cellular physiology, biochemistry, and pharmacology, vol.57, no.4, pp.226-237, 2023 (ESCI)
- II. **Push-out bond strength and dentinal tubule penetration of different root canal sealers used with**

coated core materials

DENİZ SUNGUR D., PURALI N., COŞGUN E., SEMRA Ç.

Restorative Dentistry Endodontics, vol.41, no.2, pp.114, 2016 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Disease Modeling in Zebrafish: Limb-Girdle Muscular Dystrophy 2R**
ÜNSAL Ş., KAYMAN KÜREKÇİ G., KURAL MANGIT E., TALİM B., YERSAL N., ERGİN B., DÜZ N., ÇINAR Z., KORKUSUZ P., PURALI N., et al.
6th International Congress of the Molecular Biology Association of Turkey, Turkey, 5 - 08 September 2018, pp.5-6
- II. **Effect of Ultrasonic Activation on the Penetration of Calcium Silicate-Based Cements Using an Open Apex Model**
AYHAN E., AKSEL H., PURALI N., NAGAŞ Z. E.
18. Avrupa Endodonti Derneği Yıllık Kongresi, 14 - 16 September 2017
- III. **Desmin Mutation with an ultra rare and unique phenotype: Genome editing for a patient specific zebrafish model**
Kayman Kürekçi G., Koyunlar C., Kural Mangıt E., Talim B., Korkusuz P., Erdem Özdamar S., Puralı N., Dinçer P. R.
keystone symposia Rare and Undiagnosed Diseases, Massachusetts, United States Of America, 3 - 05 August 2017
- IV. **Modeling of a unique desmin mutation in zebrafish by using genome editing brings new insights into desmin function**
KAYMAN KÜREKÇİ G., Koyunlar C., KURAL MANGIT E., TALİM B., ERGİN B., ÜNSAL İ., PURALI N., KORKUSUZ P., ERDEM ÖZDAMAR S., DİNÇER P. R.
European Human Genetics Conference, 27 - 30 May 2017
- V. **AH 26, BİOROOT RCS VE MTA PLUS KANAL DOLGU PATLARININ SMEAR TABAKASI VARLIĞINDA VE YOKLUĞUNDA DENTİN TÜBÜL PENETRASYON DERİNLİĞİ VE İTME BAĞLANMA DAYANIMININ DEĞERLENDİRİLMESİ**
AKTEMUR TÜRKER S., UZUNOĞLU E., PURALI N.
13.ULUSLARARASI TÜRK ENDODONTİ DERNEĞİ BİLİMSEL KONGRESİ, Turkey, 26 - 29 May 2016
- VI. **A novel desmin mutation causes autosomal recessive limb girdle muscular dystrophy without features of myofibrillar myopathy**
Cetin N., Balci-Hayta B., Gundesli H., KORKUSUZ P., PURALI N., TALİM B., Tan E., Selcen D., Erdem-Ozdamar S., DİNÇER P. R.
18th International Congress of the World-Muscle-Society (WMS), California, United States Of America, 1 - 05 October 2013, vol.23, pp.851-852
- VII. **Bond Strength and Tubule Penetration of Tertiary Monoblock Obturation Systems**
DENİZ SUNGUR D., Çalt Tarhan S., PURALI N.
2012 Pan European Region Meeting (Helisinki, Finland), 12 - 15 September 2012
- VIII. **The establishment of Green Fluorescent Protein expressing CHO cells by stable transfection using activated dendrimers and G418 selection**
ÇELTİKÇİ B., ÖZKARA H. A., PURALI N.
FEBS JOURNAL, Prague, 4 - 09 July 2009, vol.276, pp.215-216
- IX. **Trace element release from Si HAP ceramics**
PURALI N., KORKUSUZ P., HAKKI S., KORKUSUZ F.
International Symposium on Biotechnology: Developments and Trends, 27 - 30 June 2009
- X. **MC3T3 E1 Hücrelerinin titanyum implantlarla etkileşimi**
KORKUSUZ P., HAKKI S., PURALI N., GÖRÜR D. İ., ÖNDER M. E., NOHUTCU R. M., KOÇ N., ÖZTÜRK A.
19. Ulusal/Uluslararası katılımlı Elektron mikroskopu kongresi, Turkey, 22 - 25 June 2009
- XI. **NaTi coating improves attachment and mineralization of PDL cells**
KORKUSUZ P., KORKUSUZ F., PURALI N., NOHUTCU R. M.
87th General Session Exhibition of IADR, 1 - 04 April 2009

- XII. **Farklı titanium yüzeylerle osteoblatik hücrelerin etkileşimi**
HAKKI S., KORKUSUZ F., KORKUSUZ P., PURALI N., ÖNDER M. E., GÖRÜR D. İ., ÖZTÜRK A. M., NOHUTCU R. M.
Türk Periodontoloji Derneği 38. Bilimsel Kongresi, Turkey, 22 - 24 May 2008
- XIII. **Observation of MC3T3 E1 cells applied bioceramics by scanning electron microscopy SEM and confocal microscopy CM**
KORKUSUZ P., HAKKI S., PURALI N., KOÇ N., KORKUSUZ F.
11th Annual Seminar and Meeting of Ceramics, Cells and Tissues, United States Of America, 2 - 05 October 2007
- XIV. **MC3T3 E1 Hücre Dizisinin Uygulandığı Biyoseramiklerin Taramalı Elektron Mikroskobu ve Konfokal Mikroskop ile İncelenmesi**
KORKUSUZ P., HAKKI S., PURALI N., KOÇ N., KORKUSUZ F.
18. Ulusal (Uluslararası Katılımlı) Elektron Mikroskopi Kongresi, Turkey, 26 - 29 August 2007
- XV. **Sex differences affect Ca²⁺ sparks parameters in normal and diabetic rat ventricular cardiomyocytes**
Yaras N., Tuncay E., Purali N., Sahinoglu B., Vassort G., Lacampagne A., Turan B.
19th World Congress of the International-Society-for-Heart-Research, Bologna, Italy, 22 - 25 June 2007, vol.42

Supported Projects

- PURALI N., COŞKUN JIHAD N., TUBITAK Project, Bir Primer Reseptör Nöronda Mekano-Elektriksel Çevrim İle İlişkili Olarak Klonlanan Genlerin Kodladığı Proteinlerin Yapısal ve Fonksiyonel Özelliklerinin Belirlenmesi, 2019 - 2022
- PURALI N., ERGİN B., Project Supported by Higher Education Institutions, Kerevit (*Astacus leptodactylus*) Kalsiyuma bağlı Potasyum Kanalı geninin belirlenmesi ve moleküler özelliklerinin araştırılması, 2018 - 2021
- PURALI N., ERGİN B., TAŞKIRAN Z. E., SAĞLAM B., Project Supported by Higher Education Institutions, Bir primer reseptör nöronda mekanoelektriksel çevrimden sorumlu yapılara ait genlerin klonlanması ve kodlanan proteinlerin moleküler özelliklerinin belirlenmesi, 2017 - 2020
- PURALI N., Project Supported by Higher Education Institutions, 11 FENS Forum Berlin Toplantısına Katılım Projesi, 2017 - 2018
- NAGAŞ Z. E., AYHAN E., AKSEL H., PURALI N., Project Supported by Higher Education Institutions, Açık Apeksli Dışlarda Ultrasonik Aktivasyonun Kalsiyum Silikat Esaslı Simanların Penetrasyonuna Etkisi, 2017 - 2018
- PURALI N., Project Supported by Higher Education Institutions, Santral ve periferik nöronların ifade farklarının gösterilmesi ön çalışma projesi, 2017 - 2017
- PURALI N., Ergin B., Project Supported by Higher Education Institutions, SodyumKalsiyum Değiştiricisi Geni KT697616 için klonlama vektörü Sentezlenmesi, 2016 - 2017
- PURALI N., ALİKAŞİFOĞLU M., BABAĞLU M. Ö., Project Supported by Higher Education Institutions, Hacettepe Üniversitesi ArGe Strateji Belgesi Hazırlanması Moleküler Tıp Alanı Çalıştayı, 2016 - 2017
- BALCI B., PURALI N., TALİM B., AKSU E., Project Supported by Higher Education Institutions, Megakonyal Konjenital Müsküler Distrofi Hastalığında Mitokondri Dinamiğinin İncelenmesi, 2015 - 2017
- PURALI N., Project Supported by Higher Education Institutions, Biyofizik anabilim Dalının Eğitim ve araştırma Altyapısının Geliştirilmesi, 2015 - 2017
- PURALI N., Project Supported by Higher Education Institutions, FENS Forum 2016 KopenhagDanimarka Toplantısına Katılım Projesi, 2016 - 2016
- PURALI N., Project Supported by Higher Education Institutions, 4-11 December, 2015 Nobel Week Stockholm etkinliğine katılma projesi, 2015 - 2016
- PURALI N., COŞKUN Ç., Project Supported by Higher Education Institutions, Kerevit sodyum kanalı geni (834104 PR1 KT187402) için plasmid üretimi, 2015 - 2016
- PURALI N., Project Supported by Higher Education Institutions, EBSA 2015 Avrupa Biyofizik Dernekleri Toplantısı Dresden Almanya'ya Katılım Projesi, 2015 - 2015
- PURALI N., Project Supported by Higher Education Institutions, Kerevit (*Astacus leptodactylus*) sodyum-kalsiyum karşı değiştiricisi (NCX) geninin klonlanması ve farklı dokulardaki ekspresyon düzeyinin belirlenmesi, 2014 - 2015
- PURALI N., TUBITAK Project, Kerevit Gangliyonlarından Varsayılan Voltajla Çalışan Sodyum Kanalı Alfa Biriminin Klonlanması ve Karakterizasyonu, 2013 - 2014

Metrics

Publication: 64

Citation (WoS): 439

Citation (Scopus): 457

H-Index (WoS): 12

H-Index (Scopus): 11

Non Academic Experience

Refik saydam Hıfzısıhha Enstitüsü

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