

Prof. ZAFİR EKMEKÇİ

Personal Information

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Education Information

Doctorate, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği/Cevher Hazırlama A.B.D, Turkey 1990 - 1995

Postgraduate, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği/Cevher Hazırlama A.B.D, Turkey 1988 - 1990

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Mining Engineering, Turkey 1983 - 1988

Foreign Languages

English, C1 Advanced

Research Areas

Mining Engineering and Technology, Ore-Dressing, Flotation and Flocculation, Engineering and Technology

Academic Titles / Tasks

Professor, Hacettepe University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, 2005 - Continues

Courses

MDN 620 FLOTASYON KURAMINA GİRİŞ, Postgraduate, 2016 - 2017

MAD 459 FLOTASYON I, Undergraduate, 2016 - 2017

MDN 706 YÜZEY KİM. VE FLOTASYON, Postgraduate, 2016 - 2017

MAD 454 FLOTASYON II, Undergraduate, 2016 - 2017

Advising Theses

EKMEKÇİ Z., Bilfer Eskiköy Krom Konsantre Tesisi atıklarının flotasyon ile zenginleştirilmesi, Postgraduate, M.ARATOĞLU(Student), 2017

EKMEKÇİ Z., An investigation of the flotation behaviour of the sulphide gold ores, Postgraduate, T.ÖZGEN(Student), 2014

EKMEKÇİ Z., Oksitlenmiş kompleks bakır-kurşun-çinko cevherlerinin flotasyonu, Postgraduate, E.ÖZDEMİR(Student), 2014

EKMEKÇİ Z., Measurement of hydrophobicity of sulphide minerals by using electrochemical methods, Doctorate,

E.BAĞCI(Student), 2012

EKMEKÇİ Z., Sülfürlü cevherlerde oksitlenme derecesinin flotasyon performansına etkisi, Doctorate, Ö.BIÇAK(Student), 2011

EKMEKÇİ Z., Lahanos Cu-Zn kompleks sülfürlü cevherinin flotasyonu, Postgraduate, M.ODABAŞIOĞLU(Student), 2007

EKMEKÇİ Z., Adsorption of polysaccharides on pyrite and their utilisation as depressants, Postgraduate, Ö.BIÇAK(Student), 2006

EKMEKÇİ Z., Cu-Zn sülfürlü cevher flotasyonunda köpük yüzey görüntüsü ile flotasyon performansı arasındaki ilişkinin görüntü analiz sistemi ile incelenmesi, Postgraduate, Ç.ÖKTEN(Student), 2005

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **The effects of indigenous microorganisms and water treatment with ion exchange resin on Cu-Ni flotation performance**
Miettinen H., Bomberg M., BIÇAK Ö., EKMEKÇİ Z., Kinnunen P.
Minerals Engineering, vol.205, 2024 (SCI-Expanded)
- II. **The Impact of Pulp Temperature on the Flotation Performance of Copper-Lead-Zinc Sulphide Ore**
BIÇAK Ö., Cakir E., Ozcelik S., EKMEKÇİ Z.
Minerals, vol.13, no.9, 2023 (SCI-Expanded)
- III. **Reducing Negative Effects of Oxidation on Flotation of Complex Cu-Zn Sulfide Ores**
Ozcelik S., Ekmekci Z.
MINERALS, vol.12, no.8, 2022 (SCI-Expanded)
- IV. **Effects of Residual Xanthate on Flotation Efficiency of a Cu-Zn Sulfide Ore**
ÖZTÜRK Y., BIÇAK Ö., EKMEKÇİ Z.
MINERALS, vol.12, no.3, 2022 (SCI-Expanded)
- V. **Comparison of flash flotation and gravity separation performance in a greenfield gold project**
Erkan E., EKMEKÇİ Z., ALTUN N. E.
PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING, vol.58, no.3, 2022 (SCI-Expanded)
- VI. **Effects of Pyrite Texture on Flotation Performance of Copper Sulfide Ores**
CAN İ. B., Ozcelik S., EKMEKÇİ Z.
MINERALS, vol.11, no.11, 2021 (SCI-Expanded)
- VII. **Application of EIS technique to investigate the adsorption of different types of depressants on pyrite**
ERTEKİN Z., PEKMEZ K., Kappes R., EKMEKÇİ Z.
PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING, vol.57, no.3, pp.112-126, 2021 (SCI-Expanded)
- VIII. **Removal of sulfate ions from process water by ion exchange resins**
ÖZTÜRK Y., EKMEKÇİ Z.
MINERALS ENGINEERING, vol.159, 2020 (SCI-Expanded)
- IX. **Sulphate Removal from Flotation Process Water Using Ion-Exchange Resin Column System**
CAN İ. B., Bicak O., Ozcelik S., Can M., EKMEKÇİ Z.
MINERALS, vol.10, no.8, 2020 (SCI-Expanded)
- X. **Modelling effects of dissolved ions in process water on flotation performance**
BIÇAK Ö., ÖZTÜRK Y., ÖZDEMİR E., EKMEKÇİ Z.
MINERALS ENGINEERING, vol.128, pp.84-91, 2018 (SCI-Expanded)
- XI. **Mitigation negative effects of thiosulfate on flotation performance of a Cu-Pb-Zn sulfide ore**
ÖZTÜRK Y., BIÇAK Ö., ÖZDEMİR E., EKMEKÇİ Z.
MINERALS ENGINEERING, vol.122, pp.142-147, 2018 (SCI-Expanded)
- XII. **Evaluation of collector adsorption by electrochemical impedance spectroscopy**
ERTEKİN Z., PEKMEZ K., EKMEKÇİ Z.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.154, pp.16-23, 2016 (SCI-Expanded)
- XIII. **Prediction of flotation behavior of sulphide ores by oxidation index**
BIÇAK Ö., EKMEKÇİ Z.

- MINERALS ENGINEERING, pp.279-283, 2012 (SCI-Expanded)
- XIV. **The effect of water chemistry on froth stability and surface chemistry of the flotation of a Cu-Zn sulfide ore**
BIÇAK Ö., EKMEKÇİ Z., Can M., ÖZTÜRK Y.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.102, pp.32-37, 2012 (SCI-Expanded)
- XV. **An impedance study of the adsorption of CuSO₄ and SIBX on pyrrhotite samples of different provenances**
EKMEKÇİ Z., Becker M., TEKES E. B., BRADSHAW D. J.
MINERALS ENGINEERING, vol.23, pp.903-907, 2010 (SCI-Expanded)
- XVI. **The relationship between the electrochemical, mineralogical and flotation characteristics of pyrrhotite samples from different Ni Ores**
EKMEKÇİ Z., Becker M., TEKES E. B., BRADSHAW D.
JOURNAL OF ELECTROANALYTICAL CHEMISTRY, vol.647, no.2, pp.133-143, 2010 (SCI-Expanded)
- XVII. **Adsorption behaviour of xanthate and dithiophosphate from their mixtures on chalcopyrite**
BAGCI E., Ekmekci Z., BRADSHAW D.
MINERALS ENGINEERING, vol.20, no.10, pp.1047-1053, 2007 (SCI-Expanded)
- XVIII. **Adsorption of guar gum and CMC on pyrite**
Bicak O., EKMEKCI Z., BRADSHAW D. J., HARRIS P. J.
MINERALS ENGINEERING, vol.20, no.10, pp.996-1002, 2007 (SCI-Expanded)
- XIX. **Interactive effects of the type of milling media and CuSO₄ addition on the flotation performance of sulphide minerals from Merensky ore Part II: Froth stability**
Ekmekci Z., BRADSHAW D. J., HARRIS P., BUSWELL A.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.78, no.3, pp.164-174, 2006 (SCI-Expanded)
- XX. **Interactive effects of the type of milling media and copper sulphate addition on the flotation performance of sulphide minerals from Merensky ore Part I: Pulp chemistry**
BRADSHAW D. J., BUSWELL A., HARRIS P., Ekmekci Z.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.78, no.3, pp.153-163, 2006 (SCI-Expanded)
- XXI. **Adsorption of dithiophosphate and dithiophosphate on chalcopyrite**
Guler T., Hicyilmaz C., Gokagac G., Ekmeci Z.
MINERALS ENGINEERING, vol.19, no.1, pp.62-71, 2006 (SCI-Expanded)
- XXII. **The value and limitations of electrochemical measurements in flotation of precious metal ores**
Ekmekci Z., BUSWELL M., BRADSHAW D. J., HARRIS P.
MINERALS ENGINEERING, vol.18, no.8, pp.825-831, 2005 (SCI-Expanded)
- XXIII. **Flotation of a copper sulphide ore from Okiep using thiol collectors and their mixtures**
HANGONE G., BRADSHAW D. J., Ekmekci Z.
JOURNAL OF THE SOUTHERN AFRICAN INSTITUTE OF MINING AND METALLURGY, vol.105, no.3, pp.199-206, 2005 (SCI-Expanded)
- XXIV. **Electrochemical behaviour of chalcopyrite in the absence and presence of dithiophosphate**
GULER T., HICYILMAZ C., GOKAGAC G., Ekmekci Z.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.75, pp.217-228, 2005 (SCI-Expanded)
- XXV. **Voltammetric and drift spectroscopy investigation in dithiophosphate-chalcopyrite system**
GULER T., HICYILMAZ C., GOKAGAC G., Ekmekci Z.
JOURNAL OF COLLOID AND INTERFACE SCIENCE, vol.279, no.1, pp.46-54, 2004 (SCI-Expanded)
- XXVI. **Quantifying hydrophobicity of pyrite after copper activation and DTPI addition under electrochemically controlled conditions**
HICYILMAZ C., ALTUN N., Ekmekci Z., GOKAGAC G.
MINERALS ENGINEERING, vol.17, pp.879-890, 2004 (SCI-Expanded)
- XXVII. **Pyrite-DTPI interaction as a function of pulp potential and pH**
HICYILMAZ C., ALTUN N., Ekmekci Z., GOKAGAC G.
COLLOIDS AND SURFACES A-PHYSICO-CHEMICAL AND ENGINEERING ASPECTS, vol.233, pp.11-24, 2004 (SCI-Expanded)

- XXVIII. **Variations in pH, redox potential and oxygen concentration and their effects on mineral surface oxidation at Kure, Turkey, copper flotation plant**
Ekmekci Z., HASOY H.
TRANSACTIONS OF THE INSTITUTION OF MINING AND METALLURGY SECTION C-MINERAL PROCESSING AND EXTRACTIVE METALLURGY, vol.109, 2000 (SCI-Expanded)
- XXIX. **Collectorless flotation of Murgul (Turkey) copper ore**
Ekmekci Z., DEMIREL H.
TRANSACTIONS OF THE INSTITUTION OF MINING AND METALLURGY SECTION C-MINERAL PROCESSING AND EXTRACTIVE METALLURGY, vol.107, 1998 (SCI-Expanded)
- XXX. **Effects of galvanic interaction on collectorless flotation behaviour of chalcopyrite and pyrite**
Ekmekci Z., DEMIREL H.
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.52, no.1, pp.31-48, 1997 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Electrochemical detection of thiosulfate in the presence of sulfate ion using stainless steel electrode modified by gold**
ERTEKİN Z., PEKMEZ K., CAN N. M., EKMEKÇİ Z.
Flotation 19 CapeTown South Africa, 11 - 14 November 2019
- II. **Use of EIS to investigate of adsorption of NaCN and Na₂S₂O₅ on pyrite**
ERTEKİN Z., EKMEKÇİ Z., PEKMEZ K.
10th International Conference on Instrumental Methods of Analysis: Modern Trends and Applications, 17 - 21 September 2017
- III. **Pirit Oksidasyonunun Elektrokimyasal Yöntemlerle İncelenmesi**
ERTEKİN Z., PEKMEZ K., EKMEKÇİ Z.
29. Ulusal Kimya Kongresi, Turkey, 10 - 14 September 2017
- IV. **Flotation of problematic Cu-Zn Ores in Çbi (Turkey)**
EKMEKÇİ Z., BIÇAK Ö., CAN N. M., ÇELİK İ. B., ÖZTÜRK Y., KOCABIYIK B., ŞAHİN N.
SME Annual Conference and Expo 2017: Creating Value in a Cyclical Environment, 19 - 22 February 2017, pp.324-328
- V. **Surface characterization of Pyrite using electrochemical techniques**
ERTEKİN Z., PEKMEZ K., EKMEKÇİ Z.
XIV.INTERNATIONAL MINERAL PROCESSING SYMPOSIUM AND EXHIBITION, IMPS 2014, İzmir, Turkey, 15 - 17 October 2014
- VI. **Effects of different collector types and mixtures on a porphyry copper molybdenum sulphide ore flotation**
BIÇAK Ö., BAHRAMI A., ÖZDEMİR E., ÇELİK İ. B., CAN N. M., EKMEKÇİ Z.
International Mineral Processing symposium, KUŞADASI, Turkey, 15 - 17 October 2014, pp.287-292
- VII. **Beneficiation of gold from sulphide ore with high clay content**
GÜÇBİLMEZ D., ÖZCAN Ö., EKMEKÇİ Z.
14. International Mineral Processing Symposium, Kuşadası, Turkey, 15 - 17 October 2014, pp.695-702
- VIII. **Beneficiation Of Gold From Sulphide Ore With High Clay Content**
GÜÇBİLMEZ D., ÖZCAN Ö., EKMEKÇİ Z.
14th INTERNATIONALMINERAL PROCESSING SYMPOSIUM, Aydın, Turkey, 15 - 17 October 2014, pp.1-1212
- IX. **Plant scale measurement of flotability of sulphide minerals by using EIS**
BAĞCI TEKEŞ E., EKMEKÇİ Z., CAN N. M., PEKMEZ K.
XIII. International Mineral Processing Symposium, 10 - 12 October 2012
- X. **Flotation of Yenipazar Yozgat Complex Sulphide Ore**
BIÇAK Ö., ÇELİK İ. B., ÖZTÜRK Y., CAN N. M., EKMEKÇİ Z., ALTUN O.
XIII. International Mineral Processing Symposium, BODRUM, Turkey, 10 - 12 October 2012, pp.391-399

- XI. **Copper circuit modification at copper zinc concentrator of Çayeli Bakır İşletmeleri A Ş Türkiye**
ASLAN A., EKMEKÇİ Z., CAN N. M., ÇELİK İ. B., BIÇAK Ö., ALTUN O.
22nd World Mining CongressExpo, İstanbul, Turkey, 11 - 16 September 2011, pp.367-374
- XII. **Investigation of Alternatives for Improving the Performance of a Flotation Circuit**
ERGÜN Ş. L., GÜLSOY Ö. Y., EKMEKÇİ Z., CAN N. M., ÇELİK İ. B., KEKELIDZE K., DALAKISHVILI T.
XII. International Mineral Processing Symposium, Nevşehir, Turkey, 6 - 08 October 2010, pp.405-414
- XIII. **Investigation of the Alternatives For Improving the Performance of a Flotation Circuit**
ERGÜN Ş. L., GÜLSOY Ö. Y., EKMEKÇİ Z., CAN N. M., ÇELİK İ. B.
12th International Mineral Processing Symposium, 6 - 10 September 2010
- XIV. **Effects of water chemistry on flotation performance of a sulphide ore**
BIÇAK Ö., EKMEKÇİ Z., CAN N. M., ÖZTÜRK Y.
Flotation 'xx09, 9 - 12 November 2009
- XV. **The relationship between oxidation index and flotation performance by using EDTA extraction method**
BIÇAK Ö., EKMEKÇİ Z., CAN N. M.
13.IACIS/83.ACS Symposium, 14 - 19 June 2009, pp.178
- XVI. **A methodology to measure surface oxidation of a sulphide ore**
BIÇAK Ö., EKMEKÇİ Z., CAN N. M.
International Mineral Processing Symposium, Antalya, Turkey, 21 - 23 October 2008, pp.1195-1200
- XVII. **Development of an oxidation index to predict floatability in a sulphide ore**
BIÇAK Ö., EKMEKÇİ Z., CAN N. M.
Mineral Processing Conference, Cape-Town, South Africa, 7 - 08 August 2008
- XVIII. **Relating the changes in froth structure to metallurgical performance in flotation using machine vision**
EKMEKÇİ Z., CAN N. M., ASLAN A., BRADSHAW D. J.
International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.802-806
- XIX. **Performance evaluation of ÇBİ Flotation Plant using Mineralogical Analysis**
EKMEKÇİ Z., CAN N. M., ERGÜN Ş. L., GÜLSOY Ö. Y., BENZER A. H., ÇELİK İ. B.
The 19th International Mining Congress of Turkey, 9 - 12 June 2005
- XX. **Flotasyonda kalma süresi ve besleme tane boyunun verim üzerine etkisinin simülasyonla incelenmesi**
CAN N. M., GÜLSOY Ö. Y., EKMEKÇİ Z., ERGÜN Ş. L., BENZER A. H.
Türkiye 19. Uluslararası Madencilik Kongresi, 9 - 12 June 2005
- XXI. **Simulation Studies at Madneuli Copper Flotation Plant**
ERGÜN Ş. L., GÜLSOY Ö. Y., EKMEKÇİ Z., BENZER A. H.
IXth International Mineral Processing Symposium, 15 - 17 September 2002
- XXII. **The Performance Analysis of Cu Zn Flotation Plant of ÇBİ**
EKMEKÇİ Z., GÜLSOY Ö. Y., AKSANI B.
IXth International Mineral Processing Symposium, 15 - 17 September 2002
- XXIII. **Performance Evaluation of Copper Rougher Circuit in Kure Flotation Plant**
GÜLSOY Ö. Y., EKMEKÇİ Z., ERGÜN Ş. L.
Mineral Processing, 10 - 12 October 2001
- XXIV. **Modelling and Simulation of Grinding Circuit at Çayeli Bakır İşletmeleri A Ş ÇBİ Flotation Plant**
ERGÜN Ş. L., ERSAYIN S., GÜLSOY Ö. Y., EKMEKÇİ Z., CAN N. M., ASLAN A.
Mineral Processing on the Verge of the 21st Century, Antalya, Turkey, 16 - 18 October 2000, pp.65-70
- XXV. **Investigation on the Alternatives to Obtain Finer Flotation Feed at Küre Grinding Circuit by Simulation**
ERGÜN Ş. L., EKMEKÇİ Z., GÜLSOY Ö. Y., CAN N. M., ORHAN E. C., DİKMEN S., OBUT A.
International Mineral Processing Symposium-Mineral Processing on the Verge of the 21st Century, Antalya, Turkey, 16 - 18 October 2000, pp.59-64
- XXVI. **Interactive Effects of Pulp Potential and Oxygen Content on Copper Zinc Separation at Çayeli Bakır**

İşletmeleri A Ş ÇBİ Flotation Plant

EKMEKÇİ Z., ASLAN A., ERGÜN Ş. L., GÜLSOY Ö. Y., CAN N. M.

International Mineral Processing Symposium-Mineral Processing on the Verge of the 21st Century, Antalya, Turkey, 16 - 18 October 2000, pp.281-286

XXVII. Modelling and simulation of grinding circuit at Cayeli Bakir Isletmeleri AS, (CBI) flotation plant

ERGUN S., ERSAYIN S., Gulsoy O., EKMEKCI Z., CAN N. M., ASLAN A.

8th International Mineral Processing Symposium (IMPS-2000), Antalya, Turkey, 16 - 18 October 2000, pp.65-70

XXVIII. Cell-by-cell approach for performance evaluation in flotation circuits

Gulsoy O., EKMEKCI Z., ERGUN S., KILAVUZ F., KARAPINAR N., HASOY H.

8th International Mineral Processing Symposium (IMPS-2000), Antalya, Turkey, 16 - 18 October 2000, pp.291-294

XXIX. Investigations on the alternatives to obtain finer flotation feed at Kure grinding circuit by simulation

ERGUN S., EKMEKCI Z., Gulsoy O., CAN N. M., ORHAN E., DIKMEN S., OBUT A.

8th International Mineral Processing Symposium (IMPS-2000), Antalya, Turkey, 16 - 18 October 2000, pp.59-64

XXX. Interactive effects of pulp potential and oxygen content on copper-zinc separation at Cayeli Bakir Isletmeleri AS (CBI) flotation plant

EKMEKCI Z., ASLAN A., ERGUN S., Gulsoy O., CAN N. M.

8th International Mineral Processing Symposium (IMPS-2000), Antalya, Turkey, 16 - 18 October 2000, pp.281-286

XXXI. Temel Seramik ve Cam Hammaddelerimizdeki Feldispat Kuvars ve Kaolin Kalite Sorunları ve Çözümleri

BAYRAKTAR İ., ERSAYIN S., GÜLSOY Ö. Y., EKMEKÇİ Z., CAN N. M.

3. Endüstriyel Hammaddeler Sempozyumu, Ankara, Turkey, 14 - 15 October 1999, pp.22-33

XXXII. Effect of genesis on wetting behaviour of pyrite surfaces

BAYRAKTAR I., CAN N. M., EKMEKÇİ Z.

International Mineral Processing Symposium, İstanbul, Turkey, 15 - 17 September 1998, pp.119-124

Supported Projects

Biçak Ö., Can İ. B., Can N. M., Öztürk Y., Ekmekçi Z., H2020 Project, Integrated mineral technologies for more sustainable raw material supply (ITERAMS)-Grant Agreement number: 730480, 2017 - 2021

EKMEKÇİ Z., Project Supported by Higher Education Institutions, Flotasyon Teknolojisi ve Kimyasımdaki Son Gelişmeler ve Yenilikler, 2017 - 2017

ÖZTÜRK Y., BIÇAK Ö., EKMEKÇİ Z., Project Supported by Other Private Institutions, Ore Variability Studies of HOT Maden Au-Cu Ore, 2017 - 2017

BIÇAK Ö., EKMEKÇİ Z., ÖZTÜRK Y., Project Supported by Other Private Institutions, Optimisation of Flotation Circuit of HOT Maden Au-Cu Ore, 2017 - 2017

EKMEKÇİ Z., Project Supported by Higher Education Institutions, Çayeli Bakır İşletmeleri Bornitli Cu-Zn Cevherinin Flotasyonu, 2016 - 2017

BIÇAK Ö., EKMEKÇİ Z., ÖZTÜRK Y., Other International Funding Programs, Optimisation of Flotation Conditions of MZ MZP Ores, 2016 - 2017

BIÇAK Ö., EKMEKÇİ Z., Project Supported by Other Private Institutions, Altıntepe Sülfürlü Cevheri Flotasyon Çalışmaları, 2016 - 2016

EKMEKÇİ Z., Project Supported by Other Private Institutions, Mass Balance and Equipment Selection Studies for Hot Maden Au Cu Ore Process Plant, 2016 - 2016

BIÇAK Ö., EKMEKÇİ Z., Project Supported by Other Private Institutions, Metallurgical Assessment of Hot Maden Au Cu Ore, 2016 - 2016

EKMEKÇİ Z., Project Supported by Higher Education Institutions, Kimyasal Analiz Laboratuvarı Alt Yapısının Geliştirilmesi, 2008 - 2016

EKMEKÇİ Z., BIÇAK Ö., TUBITAK Project, Su kimyasının flotasyon performansına etkisi, 2012 - 2014

EKMEKÇİ Z., TUBITAK Project, Electrochemical Prediction of Floatability, 2008 - 2011

EKMEKÇİ Z., TUBITAK Project, Oksidasyon Derecesi ve Çözülmüş İyonların Sülfürlü Cevherlerin Flotasyon

Performansına Etkilerinin İncelenmesi and Dissolved Ions on Flotation of Sulfide Ores, 2007 - 2009

Metrics

Publication: 63

Citation (WoS): 419

Citation (Scopus): 436

H-Index (WoS): 12

H-Index (Scopus): 13

Non Academic Experience

Hacettepe Mineral Teknolojileri Ltd. Şti.