

## Assoc. Prof. SERDAR AKTAŞ

### Personal Information

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### Biography

1992 yılında lisans eğitimine başladığı İTÜ Kimya-Metalurji Fakültesi'nden 1996 yılında mezun oldum. Cambridge Üniversitesi'nde bir kısmını gerçekleştirdiğim doktora çalışmalarımı 2007 yılında bitirerek Fen Bilimleri Enstitüsü Metalurji ve Malzeme Mühendisliği'nden mezun oldum. 2011 yılında Marmara Üniversitesi'ne doktoralı öğretim görevlisi olarak başladım. 2014 yılında doçent ünvanına hak kazandım. Halen üniversite bünyesinde araştırma ve öğretim çalışmalarına devam etmekteyim.

### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Mühendisliği (Dr), Turkey 2001 - 2007

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Üretim Metalurjisi (YI) (Tezli) (Kismen Almanca), Turkey 1996 - 2001

Undergraduate, Istanbul Technical University, Kimya-Metalurji, Metalurji Ve Malzeme Mühendisliği, Turkey 1992 - 1996

### Foreign Languages

English, C1 Advanced

German, B1 Intermediate

### Dissertations

Doctorate, Bitmiş lityum-iyon ikincil pillerinden metalik değerlerin geri kazanımı ve fray-farthing-chen (FFC) Cambridge prosesi ile metalik kobalt üretimi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Malzeme Bilimi Ve Mühendisliği (Dr), 2007

Postgraduate, Galvanizli hurdalardan çinkonun geri kazanımı, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Üretim Metalurjisi (YI) (Tezli) (Kismen Almanca), 2001

### Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Production Metallurgy, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Engineering, Metalurji ve Malzeme Müh. Böl., 2011 - Continues

## Courses

Advanced Thermodynamics of Materials, Postgraduate, 2018 - 2019, 2019 - 2020  
Advanced Extractive Metallurgy, Postgraduate, 2014 - 2015, 2015 - 2016, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Special Topics in Materials Engineering 2, Undergraduate, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Engineering Project 1, Undergraduate, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Engineering Project 2, Undergraduate, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Chemical Metallurgy II, Undergraduate, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Waste Processing and Recycling in Materials Industry, Postgraduate, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Introduction to Materials Engineering, Undergraduate, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Chemical Metallurgy, Undergraduate, 2015 - 2016, 2016 - 2017, 2017 - 2018, 2018 - 2019, 2019 - 2020  
Solution Thermodynamics, Undergraduate, 2015 - 2016, 2017 - 2018  
Non ferrous metals, Undergraduate, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018  
Metallurgical Thermodynamics, Undergraduate, 2014 - 2015, 2015 - 2016, 2016 - 2017, 2017 - 2018  
Basic Chemistry, Undergraduate, 2014 - 2015, 2015 - 2016  
General Chemistry 1, Undergraduate, 2014 - 2015  
Special Topics in Environmental Engineering II, Undergraduate, 2014 - 2015

## Advising Theses

Aktaş S., Palladium recovery from waste plating solutions using commercial resin Lewatit TP 214, Postgraduate, E.Uluser(Student), 2021  
Aktaş S., Indirect metal complex part production using binder jetting technology: A preliminary research, Postgraduate, E.VARLIK(Student), 2020  
AKTAŞ S., Antimony recovery from various antimony solutions by cementation and process optimization, Postgraduate, A.Uysal(Student), 2019  
AKTAŞ S., Atık rodyum kaplama çözeltilerinden rodyum geri kazanımı, Postgraduate, S.MORCALI(Student), 2014

## Jury Memberships

Post Graduate, Post Graduate, Marmara Üniversitesi, July, 2020  
Post Graduate, Post Graduate, Marmara Üniversitesi, June, 2020  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2020  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2020  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2018  
Doctorate, Doctorate, Marmara Üniversitesi, October, 2017  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2017  
Doctorate, Doctorate, İstanbul Teknik Üniversitesi, August, 2016  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2016  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, June, 2016  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, December, 2015  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, May, 2015  
Post Graduate, Post Graduate, İstanbul Teknik Üniversitesi, January, 2015

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Recycling of precious materials by modified electrospun membranes**  
Zeytuncu Gökoğlu B., Tasdemir R. S., Tanc B., AKTAŞ S., Koyuncu İ.  
DESALINATION AND WATER TREATMENT, vol.211, pp.439-447, 2021 (Journal Indexed in SCI)
- II. **Investigation of Alkaline Leaching Parameters on Stibnite Concentrate**  
Aktaş S., Çetiner B. N.  
MINING METALLURGY & EXPLORATION, vol.37, pp.1729-1739, 2020 (Journal Indexed in SCI Expanded)
- III. **Oxidative dissolution of nickel matte in dilute sulfuric acid solutions**  
Morcalı M. H., Tafaghodi Khajavi L., Aktaş S., Dreisinger D. B.  
Hydrometallurgy, vol.185, pp.257-265, 2019 (Journal Indexed in SCI)
- IV. **Recovery of Ruthenium Via Zinc in the Presence of Accelerator**  
AKTAŞ S., Morcalı M. H., Aksu K., Aksoy B.  
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.71, no.3, pp.697-703, 2018 (Journal Indexed in SCI)
- V. **Synthesis of nanosized Cr<sub>2</sub>O<sub>3</sub> from turkish chromite concentrates with sodium borohydride (NaBH<sub>4</sub>) as reducing agent**  
Morcalı M. H., Eyuboglu C., AKTAŞ S.  
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.157, pp.7-15, 2016 (Journal Indexed in SCI)
- VI. **Studies of Gold Adsorption from Chloride Media**  
Morcalı M. H., Zeytuncu B., Ozlem E., AKTAŞ S.  
MATERIALS RESEARCH-IBERO-AMERICAN JOURNAL OF MATERIALS, vol.18, no.3, pp.660-667, 2015 (Journal Indexed in SCI)
- VII. **Production of Chromium Oxide from Turkish Chromite Concentrate Using Ethanol**  
AKTAŞ S., Eyuboglu C., MORCALI M. H., ÖZBEY S., sucuoglu y.  
HIGH TEMPERATURE MATERIALS AND PROCESSES, vol.34, no.3, pp.237-244, 2015 (Journal Indexed in SCI)
- VIII. **Investigation of cobalt sulfate precipitation by alcohol and influencing factors**  
AKTAŞ S., Gurcan H., Keskin A., Morcalı M. H., ÖZBEY S., Yücel O.  
MINERALS & METALLURGICAL PROCESSING, vol.30, no.3, pp.174-179, 2013 (Journal Indexed in SCI)
- IX. **Platinum adsorption from chloride media using carbonized biomass and commercial sorbent**  
MORCALI M. H., ZEYTUNCU B., AKTAŞ S., YÜCEL O., GÜLLÜOĞLU A. N.  
MINERALS & METALLURGICAL PROCESSING, vol.30, no.2, pp.129-136, 2013 (Journal Indexed in SCI)
- X. **Cementation of rhodium from waste chloride solutions using copper powder**  
Aktas S.  
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.114, pp.100-105, 2012 (Journal Indexed in SCI)
- XI. **Gold uptake from dilute chloride solutions by a Lewatit TP 214 and activated rice husk**  
AKTAŞ S., MORCALI M. H.  
INTERNATIONAL JOURNAL OF MINERAL PROCESSING, vol.101, pp.63-70, 2011 (Journal Indexed in SCI)
- XII. **Gold recovery from chloride solutions using fallen leaves**  
AKTAŞ S., Gozuak B., AÇMA H., Ozalp M. R., Acma E.  
ENVIRONMENTAL CHEMISTRY LETTERS, vol.9, no.1, pp.47-53, 2011 (Journal Indexed in SCI)
- XIII. **A novel purification method for copper sulfate using ethanol**  
AKTAŞ S.  
HYDROMETALLURGY, vol.106, pp.175-178, 2011 (Journal Indexed in SCI)
- XIV. **Recovery of mercury from spent silver oxide button cells**  
AKTAŞ S., MORCALI M. H.  
Minerals & Metallurgical Processing, vol.28, pp.198-203, 2011 (Journal Indexed in SCI Expanded)
- XV. **Rhodium recovery from rhodium containing waste rinsing water via cementation using zinc powder**  
AKTAŞ S.  
hydrometallurgy, vol.106, pp.71-75, 2011 (Journal Indexed in SCI Expanded)
- XVI. **Platinum recovery from dilute platinum solutions using activated carbon**  
AKTAŞ S., MORCALI M. H.  
Trans. Nonferrous Met. Soc.China, vol.21, pp.2554-2558, 2011 (Journal Indexed in SCI Expanded)
- XVII. **Silver recovery from spent silver oxide button cells**

- AKTAŞ S.  
HYDROMETALLURGY, vol.104, no.1, pp.106-111, 2010 (Journal Indexed in SCI)
- XVIII. **Silver Recovery from Waste Radiographic Films by Cementation and Reduction**  
AKTAŞ S., MORCALI M. H. , YÜCEL O.  
CANADIAN METALLURGICAL QUARTERLY, vol.49, no.2, pp.147-153, 2010 (Journal Indexed in SCI)
- XIX. **Gold recovery from dilute gold solutions using DEAE-cellulose**  
Tasdelen C., AKTAŞ S., AÇMA M. E. , GÜVENİLİR F. Y.  
HYDROMETALLURGY, vol.96, no.3, pp.253-257, 2009 (Journal Indexed in SCI)
- XX. **Towards environmentally safe recovery of platinum from scrapautomotive catalytic converters**  
Eray k., AKTAŞ S., ŞEŞEN M. K.  
Turkish J Eng.Env. Sci., vol.33, pp.83-90, 2009 (Journal Indexed in SCI Expanded)
- XXI. **Silver recovery from silver rich photographic processing solutions by copper**  
AKTAŞ S.  
CANADIAN METALLURGICAL QUARTERLY, vol.47, pp.37-43, 2008 (Journal Indexed in SCI Expanded)
- XXII. **Recovery of metallic values from spent Li ionsecondary batteries**  
AKTAŞ S., Derek F., Odne B., Jo F., AÇMA M. E.  
Mineral Processing and ExtractiveMetallurgy (Trans. Inst. Min Metall. C), vol.115, pp.95-100, 2006 (Journal Indexed in SCI Expanded)
- XXIII. **Current situation of scrap batteries in Turkey**  
AKTAŞ S., SİRKECİ A. A. , AÇMA M. E.  
Journal Of Power Sources, vol.130, pp.306-308, 2004 (Journal Indexed in SCI)
- XXIV. **A STUDY ON THE TREATMENT OF WASTES IN HOTDIP GALVANIZING PLANTS**  
SÖNMEZ S., AKTAŞ S., AÇMA M. E.  
Canadian Metallurgical Quarterly, vol.42, pp.289-300, 2003 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Recovery of Zinc from Galvanized Scraps**  
AKTAŞ S., AÇMA M. E.  
TURKISH JOURNAL OF ENGINEERING AND ENVIRONMENTAL SCIENCES, vol.26, pp.395-402, 2002 (Refereed Journals of Other Institutions)

## Books & Book Chapters

- I. **Chemical Metallurgy Laboratory Book with Lecturer's Notes**  
AKTAŞ S., ÇETİNER B. N.  
Dahi Yayıncılık A.Ş., İstanbul, 2017

## Refereed Congress / Symposium Publications in Proceedings

- I. **PALLADIUM RECOVERY FROM WASTE PLATING SOLUTIONS USED IN AUTOMOTIVE PLASTICS INDUSTRY BY METALLIC COPPER POWDER**  
Atasoy S., Çöke N., Çetiner B. N. , Aktaş S.  
7. ULUSLARARASI MUHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 21 - 22 May 2021, pp.1150
- II. **PEKTİN VE KİTRE KULLANILARAK ATIK PALADYUM ÇÖZELTİLERİNDEN PALADYUMUN ADSORPSİYON YÖNTEMİ İLE GERİ KAZANIMI**  
Karaalil Ö., Kaya S., Derelioğlu Y., Çetiner B. N. , Aktaş S.  
7. ULUSLARARASI MUHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 21 May - 22 October 2021,

pp.1151

- III. **PALLADIUM RECOVERY FROM WASTE PLATING SOLUTIONS USING COMMERCIAL RESIN LEWATIT TP 214**  
Yegül E. U. , Çetiner B. N. , Zeytuncu Gökoğlu B., Aktaş S.  
IMSTEC'20, Nevşehir, Turkey, 16 - 18 October 2020, pp.282
- IV. **ELEKTRONİK ATIKLARDAN YEŞİL KİMYA YÖNTEMİ İLE NANO ALTIN ELDESİ**  
Çolak H., Albayrak B., Çetiner B. N. , Aktaş S.  
3. Uluslararası Mühendislik ve Teknoloji Yönetimi Kongresi, İstanbul, Turkey, 16 - 17 April 2020, pp.74
- V. **INDIRECT METAL COMPLEX PART PRODUCTION USING BINDER JETTING TECHNOLOGY: A PRELIMINARY RESEARCH**  
Varlık E., Aktaş S., Giorleo L.  
3. Uluslararası Mühendislik ve Teknoloji Yönetimi Kongresi, İstanbul, Turkey, 16 - 17 April 2020, pp.73
- VI. **Antimony Recovery from Various Antimony Solutions and Determination of Optimal Conditions**  
Uysal A., ÇETİNER B. N. , MORCALI M. H. , AKTAŞ S.  
2nd International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 11 November 2019, vol.2, pp.652-661
- VII. **MAGNEZYOTERMİK REDÜKSİYON İLE AMORF BOR ÜRETİMİ**  
Öksüz F., Çokrak Ç. Y. , Aktaş S., Çetiner B. N.  
4. Uluslararası Mühendislik, Mimarlık ve Tasarım Kongresi, İstanbul, Turkey, 23 - 24 April 2019, pp.348-351
- VIII. **PRODUCTION OF ANTIMONY TRIOXIDE FROM ANTIMONY ORE**  
Zerin M., Doğan Ö., Yavuz M., Fındık Z., Çetiner B. N. , Aktaş S.  
3rd International Congress on Engineering, Architecture and Design, İstanbul, Turkey, 4 - 05 May 2018, pp.483
- IX. **PRODUCTION OF ZIRCONIUM OXIDE FROM ZIRCONIUM SILICATE**  
Doğan Ö., Yavuz M., Çetiner B. N. , Aktaş S.  
3rd International Congress on Engineering, Architecture and Design, İstanbul, Turkey, 4 - 05 May 2018, pp.433-434
- X. **Synthesis of Nano-Sized Cr<sub>2</sub>O<sub>3</sub> from Turkish Chromite Concentrates Using Sodium Borohydride**  
MORCALI M. H. , AKTAŞ S.  
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.83
- XI. **Synthesis of Cr<sub>2</sub>O<sub>3</sub> from Turkish Chromite Concentrates via Ethyl Alcohol**  
AKTAŞ S., MORCALI M. H.  
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.84
- XII. **Determination of mercury in spent and new fluorescent lamps byHG AAS**  
Seçil K., Aktaş S., Özcan M.  
7th BLACK SEA BASIN CONFERENCE ON ANALYTICAL CHEMISTRY, Varna, Bulgaria, 10 - 15 September 2015, pp.72

## Supported Projects

Aktaş S., Project Supported by Higher Education Institutions, Amonyum hegza klora platinat çökeleğinin yeni bir çevreci yöntemle rafinasyonu, 2019 - 2024

Aktaş S., Project Supported by Higher Education Institutions, Çok işlevli reaksiyon tankı tasarımı, 2019 - 2024

Aktaş S., Project Supported by Higher Education Institutions, Platinum Recovery Method, 2018 - 2023

Aktaş S., Project Supported by Higher Education Institutions, Paladyum ihtiva eden çeşitli atıklardan paladyumun ekstraksiyonu ve alkol bazlı sülfat çöktürme metoduyla rafinasyonunun araştırılması, 2018 - 2021

Aktaş S., Project Supported by Higher Education Institutions, Alaşım Yoluyla Platin Hurdalarından Platinin Yeni Yöntemle Saflaştırılması ve Proses Optimizasyonu, 2018 - 2021

Aktaş S., Project Supported by Higher Education Institutions, Yerli Sülfürlü/Oksitli Antimon Cevherlerinden Antimonun Mikrodalga Çözündürme Yöntemiyle Ekstraksiyonu, Arsenik Bertarafı ve Nano Boyutta Antimon Sentezi, 2017 - 2021

Aktaş S., Project Supported by Higher Education Institutions, Çeşitli antimon çözeltilerinden sementasyon yoluyla antimon geri kazanımı ve proses optimizasyonu, 2019 - 2020

Aktaş S., Project Supported by Higher Education Institutions, FEN-E-080415-0110 Klorlayıcı Kavurma ile Türk Kromit Cevherlerinden Krom, Demir, Magnezyum ve Alüminyum metallerinin Ekstraksiyonu ve Alüminotermik Redüksiyonla Metalik Krom Üretimi, 2015 - 2017

Aktaş S., Project Supported by Higher Education Institutions, Atık Rodyum Kaplama Çözeltilerinden Rodyum Geri Kazanımı, 2014 - 2015

Aktaş S., Project Supported by Higher Education Institutions, Etanol Sülfat Çöktürme Metoduyla Rodyumun Saflaştırılması 2012 Marmara Bapko FEN A 110412 0112, 2012 - 2014

Aktaş S., Project Supported by Higher Education Institutions, Alkol Bazlı Sülfat Çöktürme Metoduyla Rutenyumun Saflaştırılması, 2012 - 2014

## Patent

Aktaş S., Nano boyuttaki krom (III) oksidin üretim metodu ve bahsedilen krom (III) oksidin boya ve kaplama sanayisinde kullanımı, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: 2015 05000 , Initial Registration, 2020

Aktaş S., Platin geri kazanım yöntemi, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: PCT/TR2020/050793 , Initial Registration, 2020

Aktaş S., Saflaştırma Proseslerinde Kullanıma Yönelik Bir Reaksiyon Tankı, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: PT2019-00659 , Initial Registration, 2019

Aktaş S., SOY METALLERİN GERİ KAZANIMI İÇİN BİR YÖNTEM, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Recourse Number: PT2019-00586 , Initial Registration, 2019

## Scientific Refereeing

MINING METALLURGY & EXPLORATION, Journal Indexed in SCI-E, January 2019

TUBITAK Project, 1505 - University-Industry Cooperation Support Program, TEYDEB, Turkey, January 2018

## Citations

Total Citations (WOS):234

h-index (WOS):10

## Awards

Aktaş S., Çetiner B. N. , Üniversitesi M., A METHOD for PLATINUM RECOVERY, 5. İstanbul Uluslararası Buluş Fuarı, September 2020

Fındık Z., Aktaş S., Kaplama Çözeltilerindeki Platinin Geri Kazanımı ve Saflaştırılmasının Ekonomik Optimizasyonu, Tübitak Bideb, October 2017