

## Prof. Murat Olgaç Kangal

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Istanbul Technical University, Maden Fakültesi, Cevher Hazırlama Mühendisliği Bölümü, Turkey 1998 - 2004

Postgraduate, Istanbul Technical University, Maden Fakültesi, Maden Mühendisliği Bölümü, Turkey 1995 - 1998

Undergraduate, Istanbul Technical University, Maden Fakültesi, Maden Mühendisliği Bölümü, Turkey 1989 - 1995

### Foreign Languages

English

### Dissertations

Doctorate, GÖLLER BÖLGESİ HUNTİT CEVHERLERİNİN ZENGİNLEŞTİRİLMESİ VE ALEV GECİKTİRİCİ HAMMADDE ÜRETİMİNE YÖNELİK KULLANILMASI, İstanbul Teknik Üniversitesi, Maden Fakültesi, Maden Mühendisliği, 2004

Postgraduate, Yüksek titanyum içerikli albit cevherlerinin değerlendirilmesi, İstanbul Teknik Üniversitesi, Maden Fakültesi, Maden Mühendisliği Bölümü, 1998

### Research Areas

Mining Engineering and Technology, Ore-Dressing, Communiton-Sizing-Classification, Benefication by Gravity, Dense-Medium, Magnetic and Electrostatic, Flotation and Flocculation, Dewatering, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Istanbul Technical University, Maden Fakültesi, Cevher Hazırlama Mühendisliği Bölümü, 2014 - Continues

Assistant Professor, Istanbul Technical University, Maden Fakültesi, Cevher Hazırlama Mühendisliği Bölümü, 2009 - 2014

Research Assistant, Istanbul Technical University, Maden Fakültesi, Cevher Hazırlama Mühendisliği Bölümü, 1997 - 2009

## Academic and Administrative Experience

İstanbul Teknik Üniversitesi, Maden Fakültesi, Cevher Hazırlama Mühendisliği Bölümü, 2017 - Continues

İstanbul Teknik Üniversitesi, Maden Fakültesi, Cevher Hazırlama Mühendisliği Bölümü, 2011 - 2015

## Courses

SUSUZLANDIRMA VE KURUTMA, Undergraduate, 2016 - 2017, 2011 - 2012, 2009 - 2010

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

- I. **Physicochemical Characterization of Natural Wollastonite and Calcite**  
Kangal M. O., Bulut G., Guven O.  
MINERALS, vol.10, no.3, 2020 (SCI-Expanded)
- II. **The Correlation of Roasting Conditions in Selective Potassium Extraction from K-Feldspar Ore**  
Serdengeçti M. T., Basturkcü H., Burat F., Kangal M. O.  
MINERALS, vol.9, no.2, 2019 (SCI-Expanded)
- III. **Value added industrial minerals production from calcite-rich wollastonite**  
Bulut G., Akcin E. S., Kangal M. O.  
GOSPODARKA SUROWCAMI MINERALNYMI-MINERAL RESOURCES MANAGEMENT, vol.35, no.1, pp.43-58, 2019 (SCI-Expanded)
- IV. **Characterization and production of Turkish nepheline syenites for industrial applications**  
Kangal M. O., Bulut G., Yeşilyurt Z., Basturkcü H., Burat F.  
PHYSICOCHEMICAL PROBLEMS OF MINERAL PROCESSING, vol.55, no.3, pp.605-616, 2019 (SCI-Expanded)
- V. **Recycling of virgin and post-consumer polypropylene and high density polyethylene**  
Kangal M. O., Ucerier Z.  
International Polymer Processing, vol.33, no.2, pp.268-275, 2018 (SCI-Expanded)
- VI. **An Alternative Source for Ceramics and Glass Raw Materials: Augen-Gneiss**  
Kangal M. O., Bulut G., Yeşilyurt Z., Güven O., BURAT F.  
MINERALS, vol.7, no.5, 2017 (SCI-Expanded)
- VII. **Demineralization of asphaltite using free jet flotation**  
Güney A., BURAT F., KAYADUMAN M., KANGAL O.  
Asia-Pacific Journal of Chemical Engineering, vol.12, no.1, pp.42-49, 2017 (SCI-Expanded)
- VIII. **Flotation characterization of PET and PVC in the presence of different plasticizers**  
Güney A., Ozdilek C., Kangal M. O., Burat F.  
SEPARATION AND PURIFICATION TECHNOLOGY, vol.151, pp.47-56, 2015 (SCI-Expanded)
- IX. **Separation of PET and PVC by Flotation Technique Without Using Alkaline Treatment**  
Yenial U., Burat F., Yüce A. E., Güney A., Kangal M. O.  
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, vol.34, no.6, pp.412-421, 2013 (SCI-Expanded)
- X. **Investigation of thermal treatment on selective separation of post consumer plastics prior to froth flotation**  
Güney A., POYRAZ M. I., KANGAL O., BURAT F.  
Waste Management, vol.33, no.9, pp.1795-1799, 2013 (SCI-Expanded)
- XI. **Selective flotation of PVC using gelatin and lignin alkali**  
Yenial U., KANGAL O., Güney A.  
Waste Management and Research, vol.31, no.6, pp.613-617, 2013 (SCI-Expanded)
- XII. **Beneficiation of the gold bearing ore by gravity and flotation**  
Gül A., KANGAL M. O., SİRKEÇİ A. A., Önal G.  
INTERNATIONAL JOURNAL OF MINERALS METALLURGY AND MATERIALS, vol.0, 2012 (SCI-Expanded)

- XIII. **The effect of collector's type on gold and silver flotation in a complex ore**  
Acarkan N., BULUT G., GUL A., KANGAL O., Karakaş F., KOKKILIC O., ONAL G.  
Separation Science and Technology, vol.46, no.2, pp.283-289, 2011 (SCI-Expanded)
- XIV. **Selective Flotation Technique for Separation of PET and HDPE Used in Drinking Water Bottles**  
Kangal M. O.  
Mineral Processing and Extractive Metallurgy Review, vol.31, no.4, pp.214-223, 2010 (SCI-Expanded)
- XV. **Selective separation of virgin and post-consumer polymers (PET and PVC) by flotation method**  
Burat F., Güney A., Kangal M. O.  
WASTE MANAGEMENT, vol.29, no.6, pp.1807-1813, 2009 (SCI-Expanded)
- XVI. **Production of huntite and hydromagnesite with flame retardant featured by flotation**  
Kangal O., Kokkilic O., Burat F.  
Minerals and Metallurgical Processing, vol.26, no.2, pp.109-113, 2009 (SCI-Expanded)
- XVII. **Quartz Feldspar Separation for the Glass and Ceramics Industries**  
BURAT F., KÖKKLİÇ O., Kangal M. O., GÜRKAN V., ÇELİK M. S.  
MINERALS & METALLURGICAL PROCESSING, vol.24, no.2, pp.75-80, 2007 (SCI-Expanded)
- XVIII. **Effects of modifying reagents on huntite flotation**  
Kangal O., Gueney A.  
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, vol.28, no.2, pp.117-126, 2007 (SCI-Expanded)
- XIX. **Flotation characteristics of magnesite and huntite**  
Kangal M. O., Gueney A.  
MINERALS & METALLURGICAL PROCESSING, vol.23, no.3, pp.171-176, 2006 (SCI-Expanded)
- XX. **An alternative mineral in the glass and ceramic industry: Nepheline syenite**  
Burat F., Kangal O., Onal G.  
MINERALS ENGINEERING, vol.19, no.4, pp.370-371, 2006 (SCI-Expanded)
- XXI. **A new industrial mineral: Huntite and its recovery**  
Kangal O., Guney A.  
Minerals Engineering, vol.19, no.4, pp.376-378, 2006 (SCI-Expanded)
- XXII. **A new process for upgrading boron content and recovery of borax concentrate**  
Acarkan N., Bulut G., Kangal O., Onal G.  
Minerals Engineering, vol.18, no.7, pp.739-741, 2005 (SCI-Expanded)
- XXIII. **Flotation properties of unusual carbonates: huntite and hydromagnesite**  
Kangal M. O., Firat C., Guney A.  
MINERALS ENGINEERING, vol.18, no.6, pp.631-634, 2005 (SCI-Expanded)
- XXIV. **Flotation of Aladag oxide lead-zinc ores**  
Onal G., Bulut G., Gul A., Kangal O., Perek K. T., Arslan F.  
MINERALS ENGINEERING, vol.18, no.2, pp.279-282, 2005 (SCI-Expanded)
- XXV. **Flotation behaviour of huntite ( $Mg_3Ca(CO_3)_4$ ) with anionic collectors**  
Kangal O., SIRKECI A. A., Guney A.  
International Journal of Mineral Processing, vol.75, pp.31-39, 2005 (SCI-Expanded)
- XXVI. **Studies on leaching of massive rich copper ore in acidic ferric sulfate solutions**  
Arslan F., BULUT G., KANGAL M. O., PEREK K. T., GUL A., Gurmen S.  
SCANDINAVIAN JOURNAL OF METALLURGY, vol.33, no.1, pp.6-14, 2004 (SCI-Expanded)
- XXVII. **Pilot scale tests for evaluation of feldspar tailings for ceramic industry**  
Kangal O., Guney A.  
EURO CERAMICS VIII, PTS 1-3, pp.1415-1418, 2004 (SCI-Expanded)
- XXVIII. **Leaching of Massive Rich Copper Ore with Acidified Ferric Chloride**  
ARSLAN F., BULUT G., KANGAL M. O., Gül A.  
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, vol.0, 2004 (SCI-Expanded)
- XXIX. **Beneficiation of low grade feldspar by using Free Jet Flotation**  
KANGAL M. O., KANGAL M. O.  
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, vol.0, no.23, pp.129-140, 2003 (SCI-Expanded)

**XXX. Beneficiation of low-grade feldspars using free jet flotation**

Kangal M. O., Güney A.

Mineral Processing and Extractive Metallurgy Review, vol.23, pp.129-140, 2002 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Trakya Bölgesi ince boyutlu atık kömürlerin değerlendirilmesi**  
KANGAL M. O., özer m., BURAT F., akın s.  
Maden Tetkik ve Arama Dergisi, vol.157, pp.219-227, 2018 (Peer-Reviewed Journal)
- II. **Evaluation of Thrace Region fine coal tailings**  
Kangal M. O., Ozer M., Burat F., Akin S.  
BULLETIN OF THE MINERAL RESEARCH AND EXPLORATION, vol.157, pp.207-215, 2018 (ESCI)
- III. **Correlation Between Chemical Compositions and Grinding Characteristics of Different Bauxite Ores**  
Kangal M. O., Baştürkcü H., Güven O.  
Journal of Ore Dressing, vol.18, no.36, pp.1-6, 2016 (Peer-Reviewed Journal)
- IV. **Concentration of phosphate ore by flotation with/without desliming**  
Güven O., Bulut G., Kangal M. O., Durmaz N., Arslan F.  
XXV International Mineral Processing Congress 2010, IMPC 2010, vol.3, pp.1911-1916, 2010 (Scopus)
- V. **Fine coal evaluation by gravity methods**  
Yüce E., Güney A., Önal G., Kangal M. O., Kökkiliç O., Özer M., Özdingis M.  
XXV International Mineral Processing Congress 2010, IMPC 2010, vol.2, pp.1429-1435, 2010 (Scopus)
- VI. **PET ve PVC artıklarının kolon flotasyonu ile geri kazanılması**  
Kangal M. O., YENIAL U., GÜNEY A., YUCE A. E., Burat F.  
PAGEV Plastik Dergisi, vol.108, pp.112-118, 2010 (Peer-Reviewed Journal)
- VII. **Anyonik Toplayıcılar Varlığında Huntitin (Mg<sub>3</sub>Ca(CO<sub>3</sub>)<sub>4</sub>), Flotasyon Davranışı**  
Kangal M. O., Güney A.  
İTÜ Dergisi /d, vol.3, no.6, pp.87-98, 2005 (Peer-Reviewed Journal)
- VIII. **The Novel Techniques of Camdag Iron Ore**  
Güney A., Atak S., Gürkan V., Kangal M. O., Girgin Ş.  
The Journal of Ore Dressing, no.3, pp.13-20, 2000 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Susuzlandırma ve Kurutma**  
Ateşok G., Kangal M. O.  
Yurt Madenciliğini Geliştirme Vakfı Yayınları, İstanbul, 2012
- II. **Biga Yarımadasının Endüstriyel Hammadde İşletmeleri**  
ÖNAL G., Ateşok H., Perek K. T., Kangal M. O., Öztürk C. A., Selimoğlu Ö., Ertekin S., Yenel Ç., Öztoprak M., Çetiner L., et al.  
in: Biga Yarımadasının Genel ve Ekonomik Jeolojisi, MTA, Editor, Mta Genel Müdürlüğü, İtü Maden Fakültesi, Özel Yayın Serisi-28, Ankara, pp.313-316, 2012
- III. **Cevher Hazırlamada Uygulamalar**  
ACARKAN N., Kangal M. O.  
Yurt Madenciliğini Geliştirme Vakfı Yayınları, İstanbul, 2011
- IV. **Asbest (Amyant)**  
Doğan Z., Kangal M. O.  
in: Türkiye Endüstriyel Mineraller Envanteri, Önal, Özpeker, Yüce, Güney, Editor, TMMOB Maden Mühendisleri Odası Yayınları, İstanbul, pp.12-15, 1999

## Refereed Congress / Symposium Publications in Proceedings

- I. **Characterization and Concentration of Kırşehir K-Feldspar Ores Having Different Formations**  
KANGAL M. O., BURAT F., YEŞİLYURT Z. E., BAŞTÜRKÇÜ H., BULUT G.  
International Mineral Processing Conference Eurasia (IMPC-EURASIA), Antalya, Turkey, 31 October - 02 November 2019, pp.261-268
- II. **The effect of Acid leaching and calcination on wollastonite purification**  
GÜRKAN O. M., serdengeçti t., AYDIN Ş. B., GÜL A., BULUT G., KANGAL M. O.  
International Mineral Processing Conference Eurasia 2019, IMPC-EURASIA 2019, Antalya, Turkey, 31 October - 02 November 2019
- III. **Potassium Recovery from High Muscovite Containing K-Feldspar Ore**  
SERDENGEÇTİ M. T., BAŞTÜRKÇÜ H., BURAT F., KANGAL M. O.  
Academics World 125th International Conference, 5 - 06 April 2019
- IV. **Effects of Fatty Acid Amines on Selective Flotation of Na-Feldspar and Quartz**  
ÜÇERLER Z., BEŞİKTAŞ S. M., KANGAL M. O.  
The 16th International Mineral Processing Symposium, 23 - 25 October 2018, vol.518
- V. **Flotation Behaviours of Wollastonite Ore Using Three Different Collectors**  
AKÇİN E. S., BULUT G., BURAT F., YEŞİLYURT Z., BAŞTÜRKÇÜ H., KANGAL M. O.  
The 16th International Mineral Processing Symposium, İstanbul, Turkey, 23 - 25 October 2018, pp.612-618
- VI. **Characterization and Magnetic Separation of Middle Anatolian Nepheline Syenites**  
KANGAL M. O., BULUT G., BURAT F., Yeşilyurt Z., BAŞTÜRKÇÜ H.  
XVII. Balkan Mineral Processing Congress, 1 - 03 November 2017, pp.249-254
- VII. **Reducing of Colored Impurities from Feldspar Ore**  
ÖZDOĞAN C., YEŞİLYURT Z., KANGAL M. O.  
17th Balkan Mineral Processing Congress, 1 - 03 November 2017
- VIII. **Nepheline Recovery from Nepheline Syenite**  
SERDENGEÇTİ M. T., KANGAL M. O.  
17th Balkan Mineral Processing Congress, 1 - 03 November 2017
- IX. **Characterization and Magnetic Separation of Middle Anatolian Nepheline Syenites**  
KANGAL M. O., BULUT G., BURAT F., TARSUS Z., Baştürkçü H.  
XVII. Balkan Mineral Processing Congress, Antalya, Turkey, 1 - 03 November 2017
- X. **Selective Recovery of Calcite and Wollastonite from Wollastonite Ore**  
KANGAL M. O., BULUT G., BURAT F., TARSUS Z., Baştürkçü H.  
XVII. Balkan Mineral Processing Congress, Antalya, Turkey, 1 - 03 November 2017
- XI. **Re-Evaluation Of Chromite Ore Dressing Plant Tailings**  
GÜNEY A., KANGAL M. O., Özer m., YENİAL Ü.  
International Symposium On Mining And Environment, Muğla, Turkey, 27 - 29 September 2017, pp.617-625
- XII. **Concentration Possibilities of Orhaneli Chromite Ore Dressing Plant Tailings**  
Güney A., Kangal M. O., Özer M., Yenial Ü.  
15th International Mineral Processing Symposium, İstanbul, Turkey, 19 - 21 October 2016, pp.322-334
- XIII. **The Use of Eco-Friendly Collectors for Feldspar Flotation**  
Kangal M. O., Bulut G., Burat F., Güven O., Yeşilyurt Z.  
15th International Mineral Processing Symposium, İstanbul, Turkey, 19 - 21 October 2016, pp.1173-1180
- XIV. **Enrichment of Albania Kalimash Region Chromite Ores**  
GUNEY A., Kangal M. O., Burat F.  
15th International Mineral Processing Symposium, İstanbul, Turkey, 19 - 21 October 2016, pp.335-352
- XV. **Alkaline Modification Effect on Triple Polymer System Prior to Flotation**  
Kangal M. O., Edeoğlu A., Yenial Ü., Burat F., GUNEY A., Yeşilyurt Z.  
Water, Waste and Energy Management, Roma, Italy, 18 - 20 July 2016, pp.1-2
- XVI. **Improvement Of Chromite Concentrate Having High Olivine Content**  
GUNEY A., Burat F., Kangal M. O.

- XVI Balkan Mineral Processing Congress, Belgrad, Serbia And Montenegro, 17 - 19 June 2015, pp.223-228
- XVII. **Fosfat Cevherinin Ters Flotasyon Yöntemi ile Zenginleştirilmesi**  
Çınar U., Güven O., Kangal M. O.  
24th International Mining Congress of Turkey, Antalya, Turkey, 14 - 17 April 2015, pp.904-909
- XVIII. **An Overview of Bubble Size Measurement in Flotation and Related Automation Systems**  
Bozbay C. N., Kangal M. O.  
14th International Mineral Processing Symposium, Aydın, Turkey, 15 - 17 October 2014, pp.223-230
- XIX. **Effects of Different Parameters on Phosphate Flotation**  
Kangal M. O., Kara S., Güven O., Çınar U.  
14th International Mineral Processing Symposium, Aydın, Turkey, 15 - 17 October 2014, pp.299-304
- XX. **Investigation of Selective Separation Of Post-Consumer Plastics**  
Kangal M. O., GÜNEY A., Kutlu Z., Yenial Ü., Burat F.  
Industrial Hazardous Waste management Congress, Girit, Greece, 2 - 06 September 2014, pp.1-2
- XXI. **Characterization of Manganese Ore from Southeastern Turkey**  
Ateşok G., Kangal M. O., Özer M., Baştürkcü H.  
XV Balkan Mineral Processing Congress, Sozopol, Bulgaria, 12 - 16 June 2013, pp.253-257
- XXII. **Beneficiation Of Iron From Red Mud**  
YENİAL Ü., GÜNEY A., KANGAL M. O.  
Conference in Minerals Engineering, 5 - 06 February 2013, pp.169-178
- XXIII. **Enrichment of Iron from Red Mud**  
Yenial Ü., Çetin K., Güney A., Kangal M. O.  
Conference in Minerals Engineering 2013, Lulea, Sweden, 4 - 05 February 2013, pp.169-178
- XXIV. **Karbonatlı Fosfat Cevherinin Zenginleştirilmesi**  
Güven O., Kara S., Özer M., Kangal M. O.  
8. Uluslararası Endüstriyel Hammaddeler Sempozyumu, İstanbul, Turkey, 29 - 30 November 2012, pp.305-308
- XXV. **Gözlü Gnayslardan Feldspat Kazanımında Manyetik Ayırma ve Flotasyon Yöntemlerinin Karşılaştırılması**  
Gürten B., Yenial Ü., Kangal M. O.  
8. Uluslararası Endüstriyel Hammaddeler Sempozyumu, İstanbul, Turkey, 29 - 30 November 2012, pp.333-338
- XXVI. **Recovery of Copper and Plastics from Waste Electrical Cables**  
Çelik C., Kökkılıç O., Eke K., Kangal M. O., Arslan C., Arslan F.  
XIII International Mineral Processing Symposium, Muğla, Turkey, 10 - 12 October 2012, pp.259-266
- XXVII. **Reducing of iron and silica content from Seydişehir bauxite ore**  
Acarkan N., Kangal M. O., Burat F., Baştürkcü H.  
XIIIth International Mineral Processing Symposium, Muğla, Turkey, 10 - 12 October 2012, pp.123-130
- XXVIII. **The Beneficiation of Antimony Ore by Flotation**  
Kocabaş B., Güven O., Özer M., Kangal M. O.  
XIII International Mineral Processing Symposium, Muğla, Turkey, 10 - 12 October 2012, pp.207-210
- XXIX. **Beneficiation of Low-Grade Turkish Manganese Ore**  
Güven O., Burat F., Kangal M. O., Acarkan N.  
XXV International Mineral processing Congress, New Delhi, India, 24 - 28 September 2012, pp.1828-1833
- XXX. **Purification of Post Consumed PVC by Flotation**  
Yenial Ü., Kangal M. O., Güney A.  
Recycling and Reuse, 2012, International Conference on Recycling and Reuse, İstanbul, Turkey, 4 - 06 June 2012, pp.12
- XXXI. **Post Consumed PET and PVC Separation under Thermal Effect**  
GÜNEY A., Boyraz İ., Kangal M. O., Burat F.  
SUM 2012 Symposium on Urban Mining, Bergamo, Italy, 21 - 23 May 2012, pp.1-2
- XXXII. **The determination of drying properties of high moistured lignites**  
Ateşok G., Özer M., Kangal M. O., Dinçer Ateşok H.  
28th Annual International Pittsburgh Coal Conference 2011, PCC 2011, Pittsburgh, PA, United States Of America, 12

- 15 September 2011, vol.2, pp.767-782

- XXXIII. **Dewatering of Fine Coals and Performance Study of Coal Preparation Plant**  
Yenial Ü., Özer M., Akın S., Kangal M. O.  
XIV Balkan Mineral Processing Congress, Tuzla, Bosnia And Herzegovina, 14 - 16 June 2011, pp.497-501
- XXXIV. **Beneficiation of antimony tailings**  
Güven O., Burat F., Kangal M. O., Acarkan N., ONAL G.  
XIV Balkan Mineral Processing Congress, Tuzla, Bosnia And Herzegovina, 14 - 16 June 2011, pp.769-772
- XXXV. **Beneficiation Of Huntite Ores By Attrition And Classification**  
KÖKKILIÇ O., Burat F., GÜNEY A., Kangal M. O.  
Konferens I Mineralteknik, Lulea, Sweden, 8 - 09 February 2011, pp.139-153
- XXXVI. **The effects of different plasticizers on PET-PVC flotation**  
Kangal M. O., Yenial Ü., GÜNEY A., YUCE A. E., Burat F.  
XIIIth International Mineral Processing Symposium, Nevşehir, Turkey, 6 - 08 October 2010, pp.1217-1225
- XXXVII. **Evaluation of Phosphate Ores by Mechanical Disintegration**  
Kangal M. O., Özer M., Sirkeci A. A., ÖNAL G.  
12th International Mineral Processing Symposium, Nevşehir, Turkey, 6 - 08 October 2010, pp.187-193
- XXXVIII. **Concentration of Phosphate Ore by Flotation with/without Desliming**  
Güven O., Bulut G., Kangal M. O., Durmaz N., Arslan F.  
25th International Mineral Processing Congress (IMPC) 2010, Brisbane, Australia, 6 - 10 September 2010, pp.1911-1916
- XXXIX. **Fine Coal Evaluation by Gravity Methods**  
Yüce A. E., Güney A., ONAL G., Kangal M. O., Kökkılıç O., Özer M., Özdingiş M.  
25th International Mineral Processing Congress (IMPC) 2010, Brisbane, Australia, 6 - 10 September 2010, pp.1429-1435
- XL. **Kömür Şlamlarının Değerlendirilmesi**  
Güney A., Yüce A. E., Kangal M. O., Özer M., KÖKKILIÇ O.  
Türkiye 17. Kömür Kongresi, Zonguldak, Turkey, 2 - 04 June 2010, pp.87-96
- XLI. **SELECTIVE SEPARATION OF PLASTICS WASTES BY USING COLUMN FLOTATION**  
Güney A., Ozdilek C., Kangal M. O., Yüce A. E.  
14th Conference on Environment and Mineral Processing, Ostrava, Czech Republic, 5 - 06 March 2010, pp.7-14
- XLII. **Comparison of spiral and mgs for recovery of fine coal from slimes**  
Önal G., Yüce A. E., Kangal M. O., Özer M., Kökkılıç O., Güney A.  
26th Annual International Pittsburgh Coal Conference 2009, PCC 2009, Pittsburgh, PA, United States Of America, 20 - 23 September 2009, vol.1, pp.320-326
- XLIII. **Recovery of Gold Bearing Ores by Gravity and Flotation Techniques**  
Yüce A. E., Kangal M. O., Kökkılıç O., Güney A., Gürkan V.  
XIII Balkan Mineral Processing Congress, Bucharest, Romania, 14 - 17 June 2009, pp.438-444
- XLIV. **Au-Ag Recovery with Flotation from Complex Ores**  
Acarkan N., Bulut G., Gül A., Kangal M. O., Karakaş F., Kökkılıç O., ÖNAL G.  
XIII Balkan Mineral Processing Congress, Bucharest, Romania, 14 - 17 June 2009, pp.172-177
- XLV. **Beneficiation and Process Flow Sheet Development of Chromite Ores**  
GÜNEY A., YÜCE A. E., KANGAL M. O., BURAT F., KÖKKILIÇ O.  
XIII Balkan Mineral Processing Congress, 14 - 17 June 2009
- XLVI. **Beneficiation and process flow sheet development of chromites ores**  
GÜNEY A., YUCE A. E., Kangal M. O., Burat F., Kökkılıç O., Gürkan V.  
XIII Balkan Mineral Processing Congress, Bükreş, Romania, 15 - 17 May 2009, pp.401-408
- XLVII. **The Comparison of Gravity Separation and Flotation on Gold and Silver Bearing Ore**  
Acarkan N., Kangal M. O., Bulut G., ONAL G.  
Konferens i Mineralteknik, Conference in Minerals Engineering, Lulea, Sweden, 3 - 04 February 2009, pp.3-13
- XLVIII. **Effects of Bivalent Ions on Huntite and Magnesite Flotation**  
Kangal M. O., Güney A.

- 11th International Mineral Processing Symposium, Antalya, Turkey, 21 - 23 October 2008, pp.795-801
- XLIX. **Gold Recovery by Gravity and Flotation**  
Gül A., ÖNAL G., Kangal M. O.  
11th International Mineral Processing Symposium, Antalya, Turkey, 21 - 23 October 2008, pp.411-416
- L. **A study on surface properties of hydromagnesite**  
Kangal M. O., Fırat C., GUNEY A., Burat F.  
XXIV International Mineral Processing Congress, Pekin, China, 24 - 28 September 2008, pp.1187-1194
- LI. **Selective separation of post-consumed plastics (PET&PVC) by flotation method**  
GUNEY A., Saraçoğlu T., Burat F., Kangal M. O.  
XXIV International Mineral Processing Congress, Pekin, China, 24 - 28 September 2008, pp.3670-3676
- LII. **Au-Ag Recovery from Complex Pb-Zn Ores**  
Acarkan N., Bulut G., Gül A., Kangal M. O., Karakaş F., ÖNAL G.  
21st World Mining Congress & Expo 2008, Krakow, Poland, 7 - 12 September 2008, pp.1-9
- LIII. **Oksitli Kurşun-Çinko Cevherinin Flotasyon ile Zenginleştirilmesi**  
Kangal M. O., Bulut G., Gül A., Perek K. T., Arslan F.  
Türkiye Kurşun-Çinko Yataklarının Jeolojisi, Madenciliği ve Mevcut Sorunları Sempozyumu, İstanbul, Turkey, 14 - 16 January 2008, pp.380-388
- LIV. **Beneficiation of Coal Fines from Soma Coal Washing Plant Tailings**  
ÖNAL G., Özer M., Yüce A. E., Kökkılıç O., Kangal M. O., Güney A.  
24. Annual International Pittsburgh Coal Conference, Johannesburg, South Africa, 10 - 14 September 2007, pp.12
- LV. **Filler Kaolin Production from Alunite Kaolines for Paper Industry**  
Limon O., Ateşok G., Kangal M. O.  
XII Balkan Mineral Processing Congress, Delphi, Greece, 10 - 14 June 2007, pp.103-108
- LVI. **Gold Recovery by Gravity Methods**  
Gül A., ÖNAL G., Kangal M. O.  
XII Balkan Mineral Processing Congress, Delphi, Greece, 10 - 14 June 2007, pp.121-126
- LVII. **Evaluation of Coal Fines from Tailings**  
Yüce A. E., Kangal M. O., Özer M., Kökkılıç O., Güney A., ÖNAL G.  
XII Balkan Mineral Processing Congress, Delphi, Greece, 10 - 14 June 2007, pp.347-352
- LVIII. **Concentration of Borax by Two Stages Scrubbing**  
Acarkan N., Bulut G., Kangal M. O., ÖNAL G.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.1088-1093
- LIX. **Evaluation of MgO-C Bricks for Recovering Graphite and Magnesite**  
Kangal M. O., Forssberg E., Hammergren P.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.2236-2244
- LX. **Nickel Recovery from Chromite Ore**  
Amil M., Kangal M. O., Güney A.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.1521-1524
- LXI. **Recycling Processing of Plastics by Flotation**  
Özel D., Güney A., Alpyıldız S., Kangal M. O.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.2245-2248
- LXII. **Evaluation of Copper Refining Furnace Dusts**  
Arslan F., Giray Ç., Öztürk A., Kangal M. O., Orhan G., Arslan C.  
XXIII International Mineral Processing Congress IMPC 2006, İstanbul, Turkey, 3 - 08 September 2006, vol.2, pp.1505-1510
- LXIII. **Gold Recovery from Different Type of Ores by Gravity Separation**  
Gül A., Kangal M. O., ÖNAL G.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.1595-1599
- LXIV. **Graphite Recovery from Refractory Alumina-Graphite Tubes**  
Kangal M. O., Forssberg E., Hammergren P.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.2217-2224

- LXV. **The Recovery of the PGM from Chromites of Turkey**  
Amil M., Kangal M. O., Güney A.  
XXIII International Mineral Processing Congress, İstanbul, Turkey, 3 - 08 September 2006, pp.1623-1628
- LXVI. **Zonguldak Merkez Lavvarı ve Yeni Lavvar Alternatifleri**  
Ateşok G., Güney A., ACARKAN N., Gül A., Kangal M. O., KÖKKLIÇ O.  
Türkiye 15. Kömür Kongresi, Zonguldak, Turkey, 7 - 09 June 2006, pp.345-353
- LXVII. **Pre-Concentration of Gold and Silver from Metallic Ores by Multi-Stage Gravity Separation before Flotation**  
ÖNAL G., Gül A., Kangal M. O.  
Sortieren Innovationen und Anwendungen (German), Vorträge zum 4. Kolloquium Sortieren, Berlin, Germany, 6 - 07 October 2005, pp.98-102
- LXVIII. **Recovery of Metal Values From Copper Refining Dust**  
Giray Ç., Kangal M. O., Arslan F.  
12. Uluslararası Metalurji ve Malzeme Kongresi, İstanbul, Turkey, 28 September - 02 October 2005, pp.12
- LXIX. **Zonguldak Merkez Lavvarının Performans Etüdü ve Kozlu-Üzülmez Bölgesi Kömürlerinin Kullanım Teknolojilerine Yönelik Zenginleştirme Özelliklerinin Tesbiti**  
Ateşok G., Acarkan N., Güney A., Gül A., Kangal M. O., Kökkılıç O.  
Türkiye 19. Uluslararası Madencilik Kongresi ve Fuarı, IMCET2005, İzmir, Turkey, 9 - 12 June 2005, pp.335-345
- LXX. **Upgrading of Gold and Silver from Metallic Ores by Gravity Method Before Flotation**  
Gül A., Kangal M. O., ÖNAL G.  
XI Balkan Mineral Processing Congress, Tiran, Albania, 22 - 26 May 2005, pp.744-748
- LXXI. **Recovery of hydromagnesite by flotation**  
Fırat C., Burat F., Kangal M. O., GÜNEY A.  
XI Balkan Mineral Processing Congress, Durres, Albania, 5 - 08 May 2005, pp.173-182
- LXXII. **An Investigation of Huntite Flotation**  
Kangal M. O., Güney A., ÖNAL G.  
International Seminar on Mineral Processing Technology (MPT-2005), Dhanbad, India, 6 - 08 January 2005, pp.248-256
- LXXIII. **A Novel Process to Recover Oxide Lead-Zinc Ores**  
ÖNAL G., Gül A., Bulut G., Perek K. T., Kangal M. O., Arslan F.  
International Seminar on Mineral Processing Technology (MPT-2005), Dhanbad, India, 6 - 08 January 2005, pp.3-9
- LXXIV. **Recovery of Boron from the Waste-waters of Kırka Borax Concentrator**  
Kökkılıç O., Acarkan N., Kangal M. O., Sirkeci A. A.  
Xth International Mineral Processing Symposium, İzmir, Turkey, 5 - 07 October 2004, pp.781-786
- LXXV. **Gravity Concentration and Flotation Studies on Oxide Lead-Zinc Ores**  
Gül A., Bulut G., Kangal M. O., Arslan F., ÖNAL G.  
Xth International Mineral Processing Symposium, İzmir, Turkey, 5 - 07 October 2004, pp.205-212
- LXXVI. **Effects of Modifying Reagents on Hydromagnesite Flotation**  
Fırat C., Kangal M. O., Güney A.  
Xth International Mineral Processing Symposium, İzmir, Turkey, 5 - 07 October 2004, pp.351-357
- LXXVII. **Evaluation of Metallic Values from Ancient Slags**  
Bulut G., Gül A., Kangal M. O., ÖNAL G.  
Waste Processing and Recycling in Mineral and Metallurgical Industries Fifth International Symposium, 43rd Annual Conference of Metallurgists of CIM, Ontario, Canada, 22 - 25 August 2004, pp.417-424
- LXXVIII. **Evaluation of Kırka Boron Plants Tailings**  
Sirkeci A. A., Bulut G., Kangal M. O., Acarkan N., Tarkan M.  
Waste Processing and Recycling in Mineral and Metallurgical Industries Fifth International Symposium, 43rd Annual Conference of Metallurgists of CIM, Ontario, Canada, 22 May - 25 August 2004, pp.397-406
- LXXIX. **Untersuchungen zur Gewinnung von Kupfer und Kobalt aus den Kupferschlacken in Küre/Türkei**  
Gül A., Bulut G., Kangal M. O., ÖNAL G.  
Sortieren Innovationen und Anwendungen, Vorträge zum 3. Kolloquium Sortieren, Berlin, Germany, 9 - 10 October

2003, pp.229-235

- LXXX. **Laboratory Tests on the Production of High Quality Zeolite**  
Bulut G., Kangal M. O., Özer M., Tarkan M., Benkli Y. E., ÖNAL G.  
XXII International Mineral Processing Congress, Cape Town, South Africa, 28 September - 03 October 2003, pp.191-197
- LXXXI. **Pilot Applications of Column Flotation on Copper Re-Cleaning**  
Sirkeci A. A., Güney A., Bulut G., Kangal M. O., ÖNAL G.  
XXII International Mineral Processing Congress, Cape Town, South Africa, 28 September - 03 October 2003, pp.1151-1156
- LXXXII. **Mathematical Modelling of the Column Flotation Circuits of KBI Murgul Copper Concentrator in Turkey**  
Kangal M. O., Eriz T., Güney A.  
X Balkan Mineral Processing Congress, Varna, Bulgaria, 15 - 20 June 2003, pp.519-524
- LXXXIII. **Beneficiation of Ancient Copper Slags**  
Gül A., Bulut G., Kangal M. O., ÖNAL G.  
X Balkan Mineral Processing Congress, Varna, Bulgaria, 15 - 20 June 2003, pp.831-836
- LXXXIV. **Beneficiation of Chromites Having Different Mineralogical Structure**  
Gül A., Kangal M. O., Boylu F., Girgin Ş., Güney A., ÖNAL G.  
X Balkan Mineral Processing Congress, Varna, Bulgaria, 15 - 20 June 2003, pp.12-17
- LXXXV. **The Upgrading of Bitlis-Turkey Disthenes by Gravity Methods**  
Ateşok G., Ateşok H., Bulut G., Tarkan M., Kangal M. O.  
X Balkan Mineral Processing Congress, Varna, Bulgaria, 15 - 20 June 2003, pp.579-583
- LXXXVI. **Recovery of Apatite from Magnetite Ore**  
Kangal M. O., Hancı E., Güney A.  
IX International Mineral Processing Symposium, Nevşehir, Turkey, 18 - 20 September 2002, pp.186-187
- LXXXVII. **An Investigation of Copper and Cobalt Recovery from Küre Copper Slags**  
Bulut G., Gül A., Kangal M. O., Bakan S., ÖNAL G.  
IX International Mineral Processing Symposium, Nevşehir, Turkey, 18 - 20 September 2002, pp.186-187
- LXXXVIII. **Investigation of Copper and Cobalt Recovery from Küre Copper Slags**  
BULUT G., GÜL A., KANGAL M. O., ÖNAL G., BAKAN S.  
IX International Mineral Processing Symposium, IMPS 2002, 18 - 20 September 2002
- LXXXIX. **Recovery of Metallic Values from a Massive Rich Copper Ore**  
Bulut G., Kangal M. O., Gül A., Perek K. T., Arslan F.  
IXth Balkan Mineral Processing Congress, İstanbul, Turkey, 11 - 13 September 2001, pp.531-536
- XC. **Treatment of Low Grade Albites by Jet Flotation**  
Kangal M. O., Eroğlu B., Güney A.  
IXth Balkan Mineral Processing Congress, İstanbul, Turkey, 11 - 13 September 2001, pp.253-258
- XCI. **Effect of Ultrasonic Treatment on the Sedimentation of Clays**  
Özer M., Kangal M. O., Benkli Y. E., Arslan F., ÖNAL G.  
IXth Balkan Mineral Processing Congress, İstanbul, Turkey, 11 - 13 September 2001, pp.63-68
- XCII. **Comparison of HIWMS and MGS in the Evaluation of Low Grade Feldspar Ores**  
Kangal M. O., Güney A.  
IXth Balkan Mineral Processing Congress, İstanbul, Turkey, 11 - 13 September 2001, pp.331-336
- XCIII. **Comparison of Pre-Concentration and Direct Concentration in the Treatment of Low-Grade Iron Ores**  
Yüce A. E., ACARKAN N., GÜRKAN V., Girgin Ş., Kangal M. O., Boylu F., ÖNAL G.  
VI Southern Hemisphere Meeting on Minerals Technology, Rio De Janeiro, Brazil, 27 - 31 May 2001, pp.82-86
- XCIV. **A Comparative Study on Ferric Chloride and Ferric Sulphate Leaching of Sulphidic Copper Ores**  
Bulut G., Kangal M. O., Perek K. T., Yasan İ., Arslan F.  
VI Southern Hemisphere Meeting on Minerals Technology, Rio De Janeiro, Brazil, 27 - 31 May 2001, pp.348-352
- XCV. **Cupric Chloride Leaching of Sulphidic Copper Ores**

Kangal M. O., Bulut G., Gül A., Özaksoy G., Arslan F.

VI Southern Hemisphere Meeting on Minerals Technology, Rio De Janeiro, Brazil, 27 - 31 May 2001, pp.445-450

**XCVI. A New Approach to the Evaluation of the Hasançelebi Iron Ore Deposit**

ACARKAN N., Yüce A. E., Güney A., Kangal M. O., ÖNAL G., Eevli B., Demirci A.

VIIIth International Mineral Processing Symposium, Antalya, Turkey, 16 - 18 October 2000, pp.97-104

**XCVII. Adaptation of Column Flotation to Murgul Copper Concentrator**

Sirkeci A. A., Güney A., ÖNAL G., Ateşok H., Bulut G., Kangal M. O.

VIII. Balkan Mineral Processing Conference, Belgrade, Serbia And Montenegro, 13 - 18 September 1999, pp.247-252

**XCVIII. Pilot Scale Calcination of Hekimhan-Deveci Siderite Ore and Its Usage**

Ateşok G., Emrulloğlu F., Ateşok H., Gül A., Sirkeci A. A., Perek K. T., Kangal M. O., Boylu F., Girgin Ş.

VIII. Balkan Mineral Processing Conference, Belgrade, Serbia And Montenegro, 13 - 18 September 1999, pp.419-426

**XCIX. Cyanide and Its Destruction Methods**

ÖNAL G., Ateşok H., Doğan Z., Kangal M. O.

The Kriton Curi International Symposium on Environmental Management in the Mediterranean Region, İstanbul, Turkey, 8 - 10 October 1998, pp.839-848

**C. Evaluation of Feldspar Ores with High Titanium Contents**

Kangal M. O., Güney A., GÜRKAN V.

7th International Mineral Processing Symposium, İstanbul, Turkey, 15 - 17 September 1998, pp.333-338

**CI. Final Tailings Disposal after Beneficiation of Chromite Fines Using New-Age Separators**

Yüce A. E., Güney A., ÖNAL G., Girgin Ş., Kangal M. O.

5th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production, SWEMP'98, Ankara, Turkey, 18 - 20 May 1998, pp.469-472

## Supported Projects

Kangal M. O., Türk T., Project Supported by Higher Education Institutions, K-FELDSPAT CEVHERLERİNDEN POTASYUM TUZLARININ ALTERNATİF KATKI MADDELERİ İLE KAZANIMI, 2019 - 2021

Kangal M. O., Serdengeçti M. T., Project Supported by Higher Education Institutions, POTASYUM FELDSPAT CEVHERİNDEN POTASYUM KAZANIMI, 2017 - 2019

Kangal M. O., Project Supported by Higher Education Institutions, Üçlü polimer sisteminde flotasyon öncesi alkali modifikasyonunun etkisi, 2016 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, Yüksek Olivin İçerikli Kromit Cevherlerinin İyileştirilmesi, 2015 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, Kullanılmış Plastiklerin Seçimli Olarak Ayrılmasının Araştırılması, 2014 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, Kırmızı Çamurdan Demirin Kazanılması, 2013 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, ELAZIĞ BÖLGESİ MANGANLI DEMİR CEVHERİNİN ZENGİNLEŞTİRİLMESİ, 2012 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, Isıl Etki Altında Kullanılmış PET ve PVC Ayrırımı, 2012 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, DAĞITIMA VE SINIFLANDIRMA İLE HUNTİT CEVHERLERİNİN DEĞERLENDİRİLMESİ, 2011 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, PLASTİK ARTIKLARININ KOLON FLOTASYONU KULLANILARAK SEÇİMLİ OLARAK KAZANILMASI, 2010 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, BENEFİCİATİON AND PROCESS FLOW SHEET DECELOPMENT OF CHROMİTE ORES, 2009 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, Kullanılmış Plastiklerin (PET ve PVC) Flotasyon Yöntemi ile Seçimli Ayrılması, 2008 - 2018

Kangal M. O., Project Supported by Higher Education Institutions, Muntit-Hidromanyezit Cevherlerinin Alev Geciktirici Üretiminde Kullanılabilirliği, 2006 - 2014

## **Metrics**

Publication: 158

Citation (WoS): 347

Citation (Scopus): 431

H-Index (WoS): 10

H-Index (Scopus): 12

## **Awards**

Kangal M. O., 2009 Yılı "Madencilik Sektörü" Birincilik Ödülü, Mehmet Kemal Dedeman Araştırma ve Geliştirme Proje Yarışması, October 2009

Kangal M. O., Madencilik Dalı, 2005 yılı en iyi doktora tez ödülü, Yurt Madenciliğini Geliştirme Vakfı, May 2005

## **Non Academic Experience**

Lulea Teknik Üniversitesi