

15th International Metallurgy & Materials Congress



15. Uluslararası Metalurji ve Malzeme Kongresi



IMMC 2010

**TMMOB Metalurji Mühendisleri Odası
UCTEA Chamber of Metallurgical Engineers**

PROGRAMME BOOK / PROGRAM KİTABI

11-13 November/Kasım 2010

**TÜYAP Fair, Convention and Congress Center
İSTANBUL - TÜRKİYE**

15th International Metallurgy & Materials Congress



15. Uluslararası Metalurji ve Malzeme Kongresi

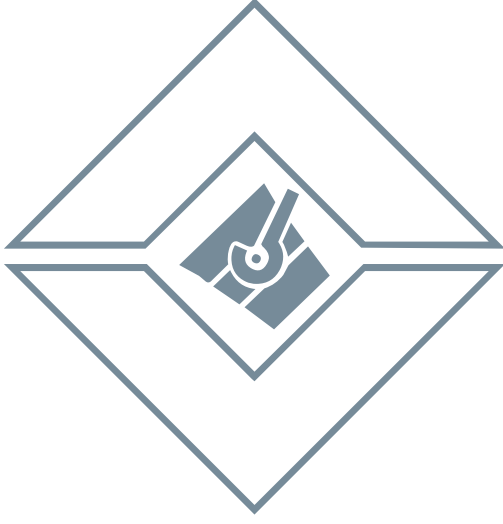
IMMC 2010

Congress Programme / Kongre Programı



**UCTEA Chamber of Metallurgical Engineers
TMMOB Metalurji Mühendisleri Odası**

**11 - 13 November 2010 • İSTANBUL / TÜRKİYE
TÜYAP Fair, Convention and Congress Center**



IMMC 2010



UCTEA Chamber of Metallurgical Engineers
TMMOB Metalurji Mühendisleri Odası

Organization Committee

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Middle East Technical University

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Middle East Technical University

Assist.Prof.Dr. Burak ÖZKAL

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Biomaterials / Biyo-malzemeler

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Iron and Steel Metallurgy / Demir Çelik Metalurjisi

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Prof.Dr. Naci SEVİNÇ *Middle East Technical University*
M.Uğur YILMAZ *İskenderun Iron-Steel Integ. Plant*

Non-Ferrous Metallurgy / Demir Dışı Metaller Metalurjisi

Prof.Dr. Cüneyt ARSLAN *Istanbul Technical University*
Prof.Dr. İsmail DUMAN *Istanbul Technical University*
Assoc.Prof.Dr. Gökhan ORHAN *Istanbul University*

Casting / Döküm

M.Erhan İŞKOL *Erkunt Sanayi A.Ş.*
Prof.Dr. Ali KALKANLI *Middle East Technical University*
Asst.Prof.Dr. Kazım TUR *Atılım University*

Recovery and Environmental Precautions in Metallurgy Geri Kazanım ve Metalurjide Çevre Koruyucu Önlemler

Prof.Dr. İsmail DUMAN *Istanbul Technical University*
Assoc.Prof.Dr. Gökhan ORHAN *Istanbul University*

Heat Treatment / Isıl İşlem

Prof. Dr.Haluk ATALA *Middle East Technical University*
Assoc.Prof.Dr. Arcan DERİCİOĞLU *Middle East Technical University*

Welding Metallurgy / Kaynak Metalurjisi

Prof.Dr. Vedat AKDENİZ *Middle East Technical University*
Dr. Caner BATIGÜN *Middle East Technical University*

Composite Materials / Kompozit Malzemeler

Prof.Dr. Cevdet KAYNAK *Middle East Technical University*
Assoc.Prof.Dr. Can KURNAZ *Sakarya University*

Session Coordinators

Oturum Koordinatörleri

Materials Characterization / Malzeme Karakterizasyonu

Prof.Dr. Vedat AKDENİZ	Middle East Technical University
Assoc.Prof.Dr. Arcan DERİCİOĞLU	Middle East Technical University
Prof.Dr. Macit ÖZENBAŞ	Middle East Technical University

Metallic Materials / Metalik Malzemeler

Prof. Dr. C.Hakan GÜR	Middle East Technical University
Prof. Dr. Rıza GÜRBÜZ	Middle East Technical University
Prof.Dr. Eyüp Sabri KAYALI	Istanbul Technical University

Nano Materials / Nano-malzemeler

Prof.Dr. Macit ÖZENBAŞ	Middle East Technical University
Assist.Prof.Dr. Burak ÖZKAL	Istanbul Technical University
Assist.Prof.Dr. H. Emrah ÜNALAN	Middle East Technical University

Ceramic Materials, Glasses, Refractory Materials Seramik Malzemeler, Cam, Refrakter Malzemeler

Prof.Dr. Bekir KARASU	Anadolu University
Prof.Dr. Abdullah ÖZTÜRK	Middle East Technical University
Assoc.Prof.Dr. Ender SUVACI	Anadolu University
Prof.Dr. Muharrem TİMUÇİN	Middle East Technical University

Powder Metallurgy / Toz Metalurjisi

Prof.Dr. Nuri DURLU	TOBB University
Prof.Dr. Ali KALKANLI	Middle East Technical University
Prof.Dr. Mehmet TÜRKER	Gazi University

Surface Treatment / Yüzey İşlemleri

Assoc.Prof.Dr. Bülent ÖNAY	Dokuz Eylül University
Prof.Dr. Mustafa ÜRGEN	Istanbul Technical University
Prof.Dr. Fatih ÜSTEL	Sakarya University

Advisory Board • Kongre Danışma Kurulu

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Prof.Dr. İbrahim YUSUFOĞLU	Istanbul University
Prof.Dr. Onuralp YÜCEL	Istanbul Technical University
M.Önder YÜCEL	ASSAB Steel & Heat Treatment Corp.

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Prof.Dr. Hans Werner ZOCH	IWT-Bremen, Germany



UCTEA Chamber of Metallurgical Engineers

The Chamber of Metallurgical Engineers (CME) is a non-profit public organization founded in 1970 and is one of twenty-two Chambers, which constitute the Union of Chambers of Turkish Engineers and Architects. The CME membership at currently 4000 is increasing each year with new graduates from national and foreign universities.

The main functions of CME are to organize required and necessary activities and conduct studies in broad fields of production, shaping, improving properties, destructive and non-destructive testing of metallic and nonmetallic materials, however, announcing the new technologies and the knowledges for the use and benefits of the members of CME and the country. Within this context CME publishes a bimonthly journal entitled "METALURJİ" and a bulletin called "BÜLTEN" in which news related to metallurgy and materials science appear. CME also organizes seminars, symposiums, panels, forums, congresses and fairs.

The supreme governing body of CME is the General Assembly which consists of the Chamber members and is done biannually. Board of Directors elected at the General Assembly is responsible from the execution of the functions mentioned above. Additionally, detailed studies on certain specific subjects are made by "work groups" that consist of specialists from universities, research institutions and the industry and established by the board of Directors.

TMMOB Metalurji Mühendisleri Odası

Türk Mühendis ve Mimar Odaları Birliği'ne bağlı olarak ilgili yasa hükümlerine uygun şekilde 1970 yılında kurulan Metalurji Mühendisleri Odası, kamu kurumu niteliğinde bir meslek kuruluşudur. Halen 4000 olan Metalurji Mühendisleri Odası üye sayısı, her yıl metalurji dalında mühendislik eğitimi veren yurtiçi ve yurtdışı üniversitelerinden mezun olanlarla artmaktadır.

Ülke ve Oda üyelerinin hak ve yararları gözetilerek, metal ve metal dışı malzemelerin üretimi, şekillendirilmesi, özelliklerinin geliştirilmesi, hasarlı ve hasarsız kontrolleri vb. alanlarda, ihtiyaç duyulan ve gerek görülen etkinliklerin organizasyonu ve çalışmaların yapılması, sektörümüzde yapılan çalışmaların, yeni teknolojilerin ve bilgi birikiminin çeşitli araçlarla meslektaşlarımıza ve sektör mensuplarına duyurulması, üyelerin durumlarının iyileştirilmesi, oda amaçlarının temelini oluşturmaktadır.

Bu amaçlar doğrultusunda Metalurji Mühendisleri Odası iki ayda bir "METALURJİ" dergisini ve Oda faaliyetlerinin, sektörel haberlerin güncel şekilde aktarıldığı "BÜLTEN"i yayınlamakta ve seminer, sempozyum, panel, forum, kongre, fuar gibi etkinlikler organize etmektedir.

İki yılda bir yapılan ve Odaya kayıtlı üyelerin katılımıyla gerçekleştirilen Genel Kurullarda oluşan Oda Yönetim Kurulu yukarıda bahsedilen çalışmaların yürütülmesinden sorumludur. Ayrıca, Oda Yönetim Kurulunca oluşturulan ve üniversite, araştırma kuruluşları ve sanayiden uzmanların yer aldığı çalışma gruplarınca belli konularda ayrıntılı çalışmalar yapılmaktadır.

Invited Lecturers / Davetli Konuşmacılar

11 November Thursday • 11 Kasım Perşembe 2010

Hall Karadeniz / Salon Karadeniz

13:30-14:00 **Materials Education Today – an European View**
Pedro Dolabella Portella
The Federation of European Materials Societies (FEMS), Germany

11 November Thursday • 11 Kasım Perşembe 2010

Hall Karadeniz / Salon Karadeniz

14:00-14:40 **Micro-Nano Scale: Basic Science to Practical Systems and Commercial Applications**
Meyya Meyyappan - *NASA Ames Research Center, USA*

11 November Thursday • 11 Kasım Perşembe 2010

Hall Karadeniz / Salon Karadeniz

15:00-15:30 **Opto-Electronic Properties of Graphene Oxide**
Manish Chhowalla - *Rutgers University, USA*

12 November Friday • 12 Kasım Cuma 2010

Hall Marmara / Salon Marmara

11:15-11:45 **Study of Precipitation in Next Generation HSLA Steels**
Peter Hodgson - *Deakin University, Australia*

12 November Friday • 12 Kasım Cuma 2010

Hall Karadeniz / Salon Karadeniz

13:30-14:00 **Recent Development of High Mechanical Bio-functional Metallic Biomaterials**
Mitsuo Niinomi - *Tohoku University, Japan*

13 November Saturday • 13 Kasım Cumartesi 2010

Hall Karadeniz / Salon Karadeniz

11:15-11:45 **Türkiye'de ve Dünya'da Demir Çelik Sektörünün Durumu**
A Review of Iron & Steel Industry: Turkey and the World
Suhat Korkmaz - *Tosyalı Holding, Türkiye*

13 November Saturday • 13 Kasım Cumartesi 2010

Hall Karadeniz / Salon Karadeniz

13:30-14:00 **Heat Treatment: State-Of-The Art, Future Trends**
George E. Totten - *Portland State University, USA*

Invited Lecturers / Davetli Konuşmacılar



Meyya Meyyappan

Meyya Meyyappan is Chief Scientist for Exploration Technology at the Center for Nanotechnology, NASA Ames Research Center in Moffett Field, CA. Until June 2006, he served as the Director of the Center for Nanotechnology as well as Senior Scientist. He is a founding member of the Interagency Working Group on Nanotechnology (IWGN) established by the Office of Science and Technology Policy (OSTP). The IWGN is responsible for putting together the National Nanotechnology Initiative.

Dr. Meyyappan has authored or co-authored over 190 articles in peer-reviewed journals and made over 200 Invited/Keynote/Plenary Talks in nanotechnology subjects across the world. His research interests include carbon nanotubes and various inorganic nanowires, their growth and characterization, and application development in chemical and biosensors, instrumentation, electronics and optoelectronics.

Dr. Meyyappan is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), the Electrochemical Society (ECS), AVS, the Materials Research Society (MRS) and the California Council of Science and Technology. He is a member of the American Society of Mechanical Engineers (ASME) and the American Institute of Chemical Engineers (AIChE). He is currently the IEEE Nanotechnology Council (NTC) Distinguished Lecturer on Nanotechnology, IEEE Electron Devices Society (EDS) Distinguished Lecturer, and was ASME's Distinguished Lecturer on Nanotechnology (2004-2006). He served as the President of the IEEE's Nanotechnology Council in 2006-2007.

For his contributions and leadership in nanotechnology, he has received numerous awards including: a Presidential Meritorious Award; NASA's Outstanding Leadership Medal; Arthur Flemming Award given by the Arthur Flemming Foundation and the George Washington University; IEEE Judith Resnick Award; IEEE-USA Harry Diamond Award; AIChE Nanoscale Science and Engineering Forum Award. For his sustained contributions to nanotechnology, he was inducted into the Silicon Valley Engineering Council Hall of Fame in February 2009. For his educational contributions, he has received: Outstanding Recognition Award from the NASA Office of Education; the Engineer of the Year Award (2004) by the San Francisco Section of the American Institute of Aeronautics and Astronautics (AIAA); IEEE-EDS Education Award; IEEE-EAB (Educational Activities Board) Meritorious Achievement Award in Continuing Education.

Invited Lecturers / Davetli Konuşmacılar



Mitsuo Niinomi

Director of Institute for Materials Research, Tohoku University, Japan

1973 BS (Dept. of Metallurgical Eng., Nagoya Univ.)
 1975 MSc (Nagoya Univ., Dept. of Metallurgical Eng., Steel and Iron Eng)
 1979 PhD (Nagoya Univ., Dept. of Metallurgical Eng., Steel and Iron Eng.)
 1980-1989 Res. Associate, Dept. of Production Systems Eng., Toyohashi Univ. of Technology

1989-1995 Associate Professor
 1995-Sept. 2005 Professor, Dept. of Production Systems Eng., Toyohashi Univ. of Technology
 2003 Dental Dr. of Science (Aichi-Gakuin University)
 Oct. 2005- Professor, Dept. of Biomaterials Sci., Inst. for Materials Research, Tohoku Univ.
 1988-1989: Visiting Associate Professor, Carnegie-Mellon University (USA)
 July 1997-December 1997: Visiting Professor, The University of Dayton (USA)
 Foreign Researcher: Material Institute, Wright Patterson Air Force Base, US Air Force
 1999-2002&2003-2005: Professor, Future Technology Center, Toyohashi Univ. of Technology
 2000-2001: Visiting Researcher, Sizuoka Research Inst. and Hamamatus Research Inst.
 2002: Lecturer (part-time) Tokyo Univ., Nagoya Inst. of Techn., Kyushu Inst. of Techn.
 2005-2006: Visiting Prof. and Lecturer (part time) with Toyohashi Univ. of Technology
 2005-2006: Lecturer (part-time) with Nagoya Univ.
 2005-: Specialist with Pharmaceuticals and Medical Devices Agency
 2006-2014: Cooperate Member of Science Council of Japan
 April 2008-November 2009: Specially Appointed Assistant for President, Tohoku Univ.

Awards:

1986 Nagai Academic Award (Nagai Foundation)
 1986 Best Technical Paper Award (Japan Institute of light Metals)
 1986 Technical Award (Nikkan Kogyo Sinbun)
 1994 Nishiyama Memorial Award (Iron and Steel Institute of Japan)
 1993 Best Technical Paper Award (Japan Institute of Light Metals)
 1993 Technical Award (Nikkan Kogyo Sinbun)
 2000 Technical Award (Japan Titanium Association)
 2002 Metals Technical Development Award (Japan Institute of Metals)
 2003 Best Poster Presentation Award (JSME/ASME Int. Conf. on Materials and Processing)
 2003 Best Technical Paper Award (Japan Institute of Metals)
 2003 Nishio Civil Praise (Nishio-city)
 2004 Best Technical Paper Award (Japan Institute of Metals)
 2005 Award for Distinguished Contribution (Japan Institute of Light Metals)
 2005 Metals Technical Development Award (Japan Institute of Metals)
 2006 Kobayashi Award (Technical Paper Award) (Japan Foundry Engineering Soc.)
 2007 Metals Best Poster Award (Japan Institute of Metals)
 2007 Best Poster Awards (for 2 posters) The 11th World Conference on Titanium, Kyoto,
 2008 Lee Hsun Lecture Award (Inst. for Metals Research, Chinese Academy of Science)
 2008 Metals Best Poster Award (Japan Institute of Metals)
 2009 Metals Distinguished Contribution Award (Japan Institute of Metals)
 2009 Metals Best Poster Award (Japan Institute of Metals)
 2009 Best Paper Presentation Award (The Japanese Society for Dental Materials & Devices)
 2009 Tanikawa-Harris Award (The Japan Institute of Metals)

Invited Lecturers / Davetli Konuşmacılar



George E. Totten

George Totten received his BS and MS degrees from Fairleigh Dickinson University in New Jersey and his Ph.D. from New York University.

He is a visiting professor at the University of Sao Paulo and an adjunct professor at Texas A&M University as well as president of G.E. Totten & Associates, LLC, a research and consulting firm specializing in Thermal Processing and Industrial Lubrication problems.

Dr. Totten is past-president (2002-2003) of the International Federation for Heat Treating and Surface Engineering (IFHTSE) and a fellow of ASM International, SAE International, ASTM and IFHTSE.

Dr. Totten is the coauthor or coeditor of approximately 550 publications including patents, technical papers and books among which include: Theory and Technology of Quenching, Handbook of Aluminum Vol. 1 and Vol. 2, Handbook of Quenchants and Quenching Technology, Steel Heat Treatment Handbook - Vol. 1 and Vol. 2, Handbook of Residual Stress and Deformation of Steel, Handbook of Metallurgical Design, Handbook of Hydraulic Fluid Technology, Handbook of Lubrication and Tribology (Vol.1: Application and Maintenance), and the ASTM Fuels and Lubricants Handbook: Technology, Properties, Performance, and Testing (MNL 37) - among others.

Invited Lecturers / Davetli Konuşmacılar



Peter Hodgson

Director of Research, ITRI, Deakin University, Australia

- PhD, University of Queensland, Queensland, Australia (1994)
- B.Eng (Hon), Monash University, Melbourne, Australia, (1979)
- DHC, Valenciennes (2005)

2009 -2014: ARC Laureatte Fellow

2008-present: Director, Institute for Technology Research and Innovation, Deakin Univ.

2006-2008: Director, Centre for Material and Fibre Innovation, Deakin Univ.

2005-present: ARC Federation Fellow

1995- 2004: Professor of Engineering, Deakin Univ.

2001- present: Associate Dean, Research, Deakin Univ.

1999- 2001: Head of School, Engineering and Technology Deakin Univ.

1985 -1995: BHP Research

Professor Hodgson worked in industry at the then BHP Research Laboratories in Melbourne for 16 years. He gained his PhD in 1994 and in 1996 moved to Deakin University as the Chair in Engineering. He has grown the research activities from a very low base to now having almost 200 students and research funded staff. In 2009 he was appointed as the Director of the Institute for Technology Research and Innovation, a multidisciplinary research centre at Deakin with 230 researchers and research students.

Professor Hodgson's research includes steel processing and the development of new alloys, and downstream ferrous and non-ferrous manufacturing processes associated with the automotive industry. He currently holds several ARC Discovery and Linkage grants, all related to metal processing. In 2004 he was made an Alfred Deakin Professor of the University for outstanding contributions to research and awarded an ARC Federation Fellow by the Australian Research Council in 2004. The University of Valenciennes award made him an Honoris Doctoris Causa in 2005 for contributions to metal forming research, while in 2006 AGH in Poland awarded him an Honorary Medal for contributions to materials science. In 2009 he was awarded an ARC Laureatte Fellowship to pursue research related to the next generation of cleaner manufacturing processes and products.

He has over 500 publications and over 30 invited and keynote lectures at international conferences. In the past his work on modelling of thermo-mechanical processing and ultrafine grain steels has received great interest. At present his work is focussing on advanced high strength steels and their characterisation by advanced methods, nano-bainites, precipitation hardening, nano-structured metals and surface engineering.

Invited Lecturers / Davetli Konuşmacılar



Manish Chhowalla

Manish Chhowalla is a Professor in the Materials Science and Engineering Department at Rutgers University. From June 2009 - July 2010, he was a Professor in the Department of Materials at Imperial College London. Prior to Imperial, he was an Associate Professor and the Donald H. Jacobs Chair

at Rutgers University in NJ USA. At Rutgers University he awarded the prestigious NSF CAREER Award for young scientists as well as the Sigma Xi Outstanding Young Investigator for the Mid Atlantic Region. Before Rutgers, he was a Royal Academy of Engineering Research Fellow at the University of Cambridge after completing his Ph.D. in Electrical Engineering there. Prior to his PhD, he worked for Multi-Arc Inc. (now Ion Bond) where he developed one of the first applications of “amorphous diamond” thin films. His technological interests are in the synthesis and characterization of novel carbon materials and their incorporation into devices for electrical, optical and mechanical applications. Fundamentally, he is interested in understanding the role of disorder in determining material properties. His research topics presently include investigation of the opto-electronic properties of graphene and carbon nanotubes, organic memory and photovoltaic devices, structural properties of boron carbide, nanostructuring in alumina/spinel nanocomposites, and deposition of carbide and nitride thin films. He has over 100 publications with nearly 5000 citations on these topics and has given more than 75 invited/keynote/plenary lectures. He has served on organizing committees for numerous international conferences.

Invited Lecturers / Davetli Konuşmacılar



Pedro Dolabella Portella

- Born 1955 in Rio de Janeiro, Brazil
- B.Eng. in metallurgical engineering, Instituto Militar de Engenharia (IME), Rio de Janeiro, 1977
- M.Sc. in materials science and engineering, Instituto Militar de Engenharia (IME), Rio de Janeiro, 1979
- Dr.-Ing. in materials science and engineering, University of Erlangen-Nuremberg, 1984, with a thesis on the cyclic creep behaviour of Alloy 800 H
- Assistant professor, Department of Materials Science and Metallurgical Engineering (DCMM), Pontifícia Universidade Católica do Rio de Janeiro (PUC-Rio) (1984 – 1987)
- Scientist at BAM Federal Institute for Materials Research and Testing (1987 – 1992)
- Head of laboratory Metallography and Ceramography (1992 – 1995)
- Head of division Microstructural Characterization (1996 – 1999)
- Head of department Materials Engineering (since January 2000)

Research interests

- Mechanical behaviour of metallic materials for high temperature applications
- Phase transitions in metallic materials
- Materialography
- Failure analysis and prevention

Honorary positions

- President of the Federation of European Materials Societies (FEMS), 2010 - 2011
- Secretary general of the German Federation Materials Science and Engineering (BV MatWerk, www.matwerk.de)
- Spokesperson of the DFG-Review board 406-02 Metallic, ceramic and polymeric materials (DFG - German Research Foundation)
- Member of the panel Engineering Physics, Materials and Processes of ASIIN (ASIIN - Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik)
- Member of the editorial boards of Praktische Metallographie; Journal of Failure Analysis and Prevention; Revista Brasileira de Pós-Graduação

Awards

- August Wöhler Award, DVM (2010)

Invited Lecturers / Davetli Konuşmacılar

SUHAT KORKMAZ

IMMC 2010 PROGRAMME / PROGRAM

11 November Thursday // 11 Kasım Perşembe 2010

TIME/SAAT	HALL/SALON KARADENİZ	HALL/SALON MARMARA	HALL / SALON 3
13:30-14:45	Plenary Session Bilimsel ve Teknik Açılış		
15:00-16:15	Nanomaterials 1 Nano Malzemeler 1	Composite Materials 1 Kompozit Malzemeler 1	
16:30-17:45	Nanomaterials 2 Nano Malzemeler 2	Composite Materials 2 Kompozit Malzemeler 2	

12 November Friday // 12 Kasım Cuma 2010

TIME/SAAT	HALL/SALON KARADENİZ	HALL/SALON MARMARA	HALL / SALON 3
10:00-11:00	Materials Characterization 1 Malzeme Karakterizasyonu 1	Metallic Materials 1 Metalik Malzemeler 1	
11:15-12:30	Materials Characterization 2 Malzeme Karakterizasyonu 2	Metallic Materials 2 Metalik Malzemeler 2	
13:30-14:45	Biomaterials Biyolojik-Malzemesler	Metallic Materials 3 Metalik Malzemeler 3	
15:00-16:15	Powder Metallurgy Toz Metalurjisi	Non-Ferrous Metallurgy Demir Dışı Metaller Metalurjisi	Metallic Materials 4 Metalik Malzemeler 4
16:30-17:45	Welding Metallurgy Kaynak Metalurjisi	Recovery and Environmental Precautions in Metallurgy Geri Kazanım ve Metalurjide Çevre Korumaya Önlemler	Metallic Materials 5 Metalik Malzemeler 5

13 November Saturday // 13 Kasım Cumartesi 2010

TIME/SAAT	HALL/SALON KARADENİZ	HALL/SALON MARMARA	HALL / SALON 3
10:00-11:00	Iron and Steel Metallurgy 1 Demir-Çelik Metalurjisi 1	Casting 1 Döküm 1	
11:15-12:30	Iron and Steel Metallurgy 2 Demir-Çelik Metalurjisi 2	Casting 2 Döküm 2	
13:30-14:45	Heat Treatment Isıl İşlem	Ceramics, Glasses, Refractories 1 Seramik, Cam, Refrakter Malzemeler 1	
15:00-16:15	Surface Treatment 1 Yüzey İşlemleri 1	Ceramics, Glasses, Refractories 2 Seramik, Cam, Refrakter Malzemeler 2	
16:30-17:45	Surface Treatment 2 Yüzey İşlemleri 2	Ceramics, Glasses, Refractories 3 Seramik, Cam, Refrakter Malzemeler 3	
18:00-18:30	Closing Session Kapanış Oturumu		

09:00

Registration Kayıt

10:30-12:00

Opening Ceremony (Congress and Trade Fair) Kongreler ve Fuarlar Ortak Açılış Konuşmaları

12:00-12:30

Fairs Opening Fuar Açılışı

HALL KARADENİZ / SALON KARADENİZ

PLENARY SESSION / BİLİMSEL ve TEKNİK AÇILIŞ

Session Chairman / Oturum Başkanı: **C. HAKAN GÜR**

13:30-14:00

Materials Education Today – an European View

Pedro Dolabella Portella

The Federation of European Materials Societies (FEMS)

Germany

(Invited Lecturer / Davetli Konuşmacı)

14:00-14:45

Micro-Nano Scale: Basic Science to Practical Systems and Commercial Applications

Meyya Meyyappan

NASA Ames Research Center

USA

(Invited Lecturer / Davetli Konuşmacı)

11 November - 11 Kasım 2010

HALL KARADENİZ / SALON KARADENİZ**NANOMATERIALS 1****NANO MALZEMELER 1**Session Chairman / Oturum Başkanı: **H. EMRAH ÜNALAN**

- 15:00-15:30 Opto-Electronic Properties of Graphene Oxide**
Manish Chhowalla
Rutgers University
USA
(Invited Lecturer / Davetli Konuşmacı)
- 15:30-15:45 Structural and Magnetic Properties of the Nanocomposites Fe/SiO₂**
Amel Kihal¹, Bouzabata Bouguerra¹, Gerard Fillion², D. Fruchart²
University of Badji Mokhtar¹, Institute of Neel²
Algeria, France
- 15:45-16:00 Synthesis of CuO/NiO Nanopowders via Alkalinization Precipitation Process**
Roya Roohibakhsh, Hamid Reza Rezaie, Hekmat Razavizadeh
Iran University of Science and Technology
Iran
- 16:00-16:15 Optimum Porous Silicon Parameters for Antireflection Solar Cell, using Transfer Matrix Method (TMM)**
Naser M.Ahmed Al-rawi¹, Yarub Al-Douri¹, Zainuriah Hassan²
¹USM-School of Physics-Penang, ²Unimap School of Microelectronic Engineering
Malaysia
- 16:15-16:30 Boyayla Uyarılmış Güneş Pilleri için Çekirdek-Kabuk Tipi FTO/TiO₂ Nanoparçacık Üretimi**
Production of Core-Shell Type FTO/TiO₂ Nanoparticles for Dye Sensitized Solar Cells
Kerem Çağatay İçli, A. Macit Özenbaş
Middle East Technical University
Türkiye

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11 November - 11 Kasım 2010

HALL KARADENİZ / SALON KARADENİZ**NANOMATERIALS 2****NANO MALZEMELER 2**Session Chairman / Oturum Başkanı: **BURAK ÖZKAL**

- 16:45-17:00 MoO₃'in İndirgenmesi ve Karbürizasyonu Yoluyla İnce Mo₂C Toz Sentezi**
 Synthesis of Fine Mo₂C Powders by Reduction and Carburization of MoO₃
Şenoİ Çetinkaya, Şerafettin Eroğlu
Istanbul University
Türkiye
- 17:00-17:15 Çinko Oksit Nano Parçacıkların Mikro Emülsiyon Tekniğı ile Sentezlenmesi ve Mikro Emülsiyon Formülasyonunun Parçacık Morfolojisine Etkisi**
 Synthesis of Zinc Oxide Nanoparticles by Microemulsion Method and the Effect of Microemulsion Formulation on Particle Morphology
Özlem Altıntaş Yıldırım, Caner Durucan
Middle East Technical University
Türkiye
- 17:15-17:30 Nano Boyutta Alümina Öncülü Alümoksanin Glikotermal Sentezi ve Karakterizasyonu**
 Glycothermal Synthesis and Characterization of Alumoxane as Nano Sized Alumina Precursor
Korhan Sezgiker¹, Bora Maviş², Üner Çolak², Güngör Gündüz¹
¹Middle East Technical University, ²Hacettepe University
Türkiye
- 17:30-17:45 Karbon Nanotüp Takviyeli Alümina Seramik Dişlilerin Elektrokinetik Biriktirme Yöntemiyle Üretim ve Karakterizasyonu**
 Processing and Characterization of Carbon Nanotube Reinforced Alumina Ceramic Gears by Electrophoretic Deposition
Ali Can Zaman, Cem B. Üstündağ, Cengiz Kaya
Yıldız Technical University
Türkiye
- 17:45-18:00 Kimyasal Buhar Biriktirme Yöntemiyle Ni (Ağ. % 70)-Fe Katalist ve Metan Kullanılarak Karbon Nanofiber Büyütülmesi**
 Growth of Carbon Nanofiber by Chemical Vapor Deposition using Ni (70 wt%)-Fe Catalyst and Methane
Melek Cumbul Altay, Şerafettin Eroğlu
Istanbul University
Türkiye
- 18:00-18:15 Yüksek Alevlenme Dayanımlı Polimer Bazlı Karbon-Nanotüp ve Kil Katkılı Nanokompozitler**
 High Flame Retardancy Carbon Nanotube and Nanoclay Reinforced Polymer Nanocomposites
N.Ali Işırtman, H.Özgür Gündüz, B.Melike Kuşçuoğlu, Cevdet Kaynak
Middle East Technical University
Türkiye

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HALL MARMARA / SALON MARMARA

COMPOSITE MATERIALS 1
KOMPOZİT MALZEMELER 1

Session Chairman / Oturma Başkanı: CEVDET KAYNAK

- 15:00-15:15 **Düşük Hızlı Darbe Yüklemleri Sonrası Cam Fiber Takviyeli Polyester Kompozitlerde Ortaya Çıkan Hasar Konisinin İncelenmesi**
Damage Cone Investigation Occurred in Glass Reinforced Polyester Composite after Low Velocity Impact Loading
Sinan Fidan, Tamer Sinmazçelik, Onur Çoban, Mustafa Özgür Bora
Kocaeli University
Türkiye
- 15:15-15:30 **Ti İlavesinin $AlSi_9Mg-B_4C_p$ Kompozitlerinde İslatılabilirliğe ve Partikül İlave Verimine Etkisi**
The Effect of Ti Addition on the Wettability and Particle Addition Yield in $AlSi_9Mg-B_4C_p$ Composites
Fatih Toptan, Mustafa Çiğdem, Işıl Kerti
Yıldız Technical University
Türkiye
- 15:30-15:45 **Karıştırılmalı Döküm Yöntemiyle Üretilen $Al-B_4C_p$ Kompozitlerin Abratif Aşınma Davranışı**
Abrasive Wear Behaviour of $Al-B_4C_p$ Composites Produced by Using Stir Casting Method
Aykut Çanakçı
Karadeniz Technical University
Türkiye
- 15:45-16:00 **MgO -Spinel'e Zirkon- Y_2O_3 İlavesiyle Üretilen Kompozitlerin Isıl Şok Performansının Araştırılması ve Mikroyapısal Karakterizasyonu**
Microstructural Characterisation of Thermal Shock Performance of MgO -Spinel Composite Refractories Produced with the Addition of Zircon- Y_2O_3
Cemal Aksel, Tuba Aksoy
Anadolu University
Türkiye
- 16:00-16:15 **$Cu-SiC$ Kompozitlerinin Üretimi ve Karakterizasyonu**
Production and Characterization of $Cu-SiC$ Composites
G.Çelebi Efe, T. Yener, İ. Altınsoy, M. İpek, S. Zeytin, C. Bindal
Sakarya University
Türkiye
- 16:15-16:30 **Silisyum Karbür-Alüminyum Yüzey Kompozitlerinin Sürtünme Karıştırma Yöntemi ile Üretimi ve Özellikleri**
Preparation of Silicon Carbide-Aluminum Surface Composites by Friction Stir Processing (FSP) and their Properties
Hasan Erdem Çamurlu, Narin Ünal
Akdeniz University
Türkiye

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HALL MARMARA / SALON MARMARA**COMPOSITE MATERIALS
KOMPOZİT MALZEMELER 2**Session Chairman / Oturum Başkanı: **CAN KURNAZ**

- 16:45-17:00 MgO-MgAl₂O₄-ZrO₂ Kompozit Refrakterlerin Korozyon Direncinin Araştırılması**
Investigation of Corrosion Resistance of MgO-MgAl₂O₄-ZrO₂ Composite Refractories
Cemal Aksel, Rasim Ceylanteğin
Anadolu University
Türkiye
- 17:00-17:15 Investigating the Correlation between the Porosity, Wear Resistance and the Production Method of AlSiC_p Composites**
Andrea Simon¹, Evren Tan², C. Hakan Gür², Tadeusz Pieczonka³, Zoltan Gacsi⁴
¹University of Miskolc, ²Middle East Technical University, ³AGH University of Science and Technology, ⁴University of Miskolc
Hungary, Turkey, Poland
- 17:15-17:30 Repair of the Mortars Damage by Composite Materials**
Mohammed Saidi, Boudjemaa Bezzazi, Messaoud Hamiane, Abdelbaki Benmounah
University M' Hamed Bougara of Boumerdes
Algeria
- 17:30-17:45 Influence of Cu Addition on Wear Properties of Cast In-Situ Al-17wt%Mg₂Si Metal Matrix Composite**
Noushin Nasiri, Masud Emamy, Hadi Hosseinzadeh, Amir Reza Sohrabi
Tehran University
Iran
- 17:45-18:00 Production of Aluminum/Alumina Composite by New Methods**
Roohollah Jamaati, Mohammad Reza Toroghinejad
Isfahan University of Technology
Iran
- 18:00-18:15 Production of Micro-Nano Al-Al₂O₃ Composite and Investigation on the Mechanical Properties**
Mohsen Hosseinzadeh¹, Omid Mirzaee¹, Peyman Saidi²
¹Semnan University, ²Ferdowsi University
Iran

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HALL KARADENİZ / SALON KARADENİZ**MATERIALS CHARACTERIZATION 1
MALZEME KARAKTERİZASYONU 1**Session Chairman / Oturum Başkanı: **VEDAT AKDENİZ**

- 10:00-10:15 Phase Transformation Study of Fe-Ni-Mn Martensitic Steel During Intercritical Annealing Heat Treatment by Means of EBSD and X-Ray**
Hassan Shirazi^{1,2}, M.Nili Ahmadabadi¹, H.Ghasemi Nanasa¹, Tadashi Furuhashi², Behrang Poorganji², M.Khani Ooshani¹, S.Hossein Nedjad³
¹University of Tehran, ²Tohoku University, ³Sahand University of Technology
 Iran, Japan
- 10:15-10:30 Materials Characterization of Iron and Slag Finds of the Early Medieval Avar Metallurgists**
Bela Török, Arpad Kovacs
 University of Miskolc
 Hungary
- 10:30-10:45 On-line Monitoring of PDMS Surface Modification using Photothermal Deflection (Ar, Co₂ Laser) and CdS Sensor**
Najmeh Najmaddin^{1,2}, Mohammad Khosroshahi¹
¹Amirkabir University of Technology, ²Iran University of Science and Technology
 Iran
- 10:45-11:00 Statistical Reliability of EBSD Data Sets for the Characterization of Al-alloyed TRIP Steels**
Kemal Davut, Stefan Zaefferer
 Max-Planck-Institut fuer Eisenforschung GmbH
 Germany

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HALL KARADENİZ / SALON KARADENİZ**MATERIALS CHARACTERIZATION 2
MALZEME KARAKTERİZASYONU 2**Session Chairman / Oturum Başkanı: **ARCAN DERİCİOĞLU**

- 11:15-11:30 **New Investigation Study of Porous Silicon Stiffness**
Yarub Al-Douri¹, N.M. Ahmed²
¹University Malaysia Perlis, ²University Sains Malaysia
 Malaysia
- 11:30-11:45 **İri Hacimli Amorf/Nanokristal Fe-Co-Nd-B Manyetik Alaşımlarının Sentezlenmesi**
 Synthesis of Bulk Amorphous/Nanocrystalline Fe-Co-Nd-B Magnetic Alloys
Mehmet Yıldırım, M. Vedat Akdeniz, Amdullah O. Mekhrabov
 Middle East Technical University
 Türkiye
- 11:45-12:00 **Değişen Demir Oranlarında Ni-Al-Fe Alaşımlarının Manyetik Özelliklerine Etkisi**
 Magnetic Properties of Ni-Al-Fe Alloys with Varying Iron Content
Nagehan Duman, Amdullah O. Mekhrabov, M. Vedat Akdeniz
 Middle East Technical University
 Türkiye
- 12:00-12:15 **Temperlenmiş Beynitik Bir Çeliğin Korozyon Davranışı: Mikroyapısal Değişimler Üzerine Bir Etüd**
 Corrosion Behavior of a Tempered Bainitic Steel: A Study on Microstructural Changes
Ş.Hakan Atapek, Şeyda Polat, Şadi Karagöz
 Kocaeli University
 Türkiye
- 12:15-12:30 **Influence of Laser Peening Conditions on Surface Corrosion Resistance of Aluminium Alloy**
U. Trdan¹, J. Grum¹, J.L. Ocana²
¹University of Ljubljana, ²Centro Laser U.P.M.
 Slovenia, Spain

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HALL KARADENİZ / SALON KARADENİZ**BIOMATERIALS
BİYO-MALZEMELER**Session Chairman / Oturma Başkanı: **CANER DURUCAN**

- 13:30-14:00 Recent Development of High Mechanical Bio-Functional Metallic Biomaterials**
Mitsuo Niinomi
Tohoku University
Japan
(Invited Lecturer / Davetli Konuşmacı)
- 14:00-14:15 Design Strategy for Biodegradable Fe-Based Alloys for Medical Applications**
Michael Schinhammer, C. Anja Hanzi, F. Jörg Löffler, J. Peter Uggowitzer
ETH Zurich
Switzerland
- 14:15-14:30 Biyomedikal Uygulamalar için Süperparamanyetik Demir Oksit Nanoparçacıklar**
 Superparamagnetic Iron Oxide Nanoparticles for Biomedical Applications
A. Macit Özenbaş, Özge Acarbaş Baltacı
Middle East Technical University
Türkiye
- 14:30-14:45 Makroporoz Hidroksiapatit Seramik Tüplerin Elektrokinetik Biriktirme Yöntemi ile Şekillendirilmesi**
 Electrophoretic Deposition Formation of Macroporous Hydroxyapatite Ceramic Tubes
Cem Bülent Üstündağ¹, Cengiz Kaya¹, Koji Loku², Masanobu Kamitakahara²
¹*Yıldız Technical University, ²Tohoku University*
Türkiye, Japan

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HALL KARADENİZ / SALON KARADENİZ**POWDER METALLURGY 1
TOZ METALURJİSİ 1**Session Chairman / Oturum Başkanı: **MEHMET TÜRKER**

- 15:00-15:15 Boşluk Yapıcı Boyut ve Şeklinin Yüksek Oranda Gözenek İçeren Demir Esaslı Malzemenin Mikroyapı ve Mekanik Özelliklerine Etkisi**
Effect of Space Holder Size and Shape on Microstructure and Mechanical Properties of Highly Porous Iron Based Material
Nuray Beköz, Enver Oktay
Istanbul University
Türkiye
- 15:15-15:30 Farklı Geometrik Şekilli Katmanlara Sahip Alüminyum Sandviç Köpüklerin Üretimi ve Basma Özelliklerinin İncelenmesi**
Production of Aluminum Foam Sandwich with Various Geometric Shapes and Investigation of Their Compressive Properties
Arif Uzun¹, Mehmet Türker²
¹Kastamonu University, ²Gazi University
Türkiye
- 15:30-15:45 Gözenekli TiNi Şekil Bellekli Alaşımlarının Üretilmesi ve Karakterizasyonu**
Production and Characterization of Porous TiNi Shape Memory Alloys
Tarık Aydoğmuş, Şakir Bor
Middle East Technical University
Türkiye
- 15:45-16:00 Ti-50.8 at%Ni Köpüksü Malzemelerin Üretimi ve Mekanik Karakterizasyonu**
The Production and Mechanical Characterization of Ti-50.8 at%Ni Porous Materials
G. İpek Nakaş, A. Şakir Bor
Middle East Technical University
Türkiye
- 16:00-16:15 Döner Disk Atomizasyonu Yöntemiyle Hızlı Katılaştırılmış AISI 304 Paslanmaz Çelik Alaşım Tozu Üretiminin İncelenmesi**
Investigation of Producing Rapidly Solidified AISI 304 Stainless Steel Powder by Rotating Disc Atomization
Sultan Öztürk, Gönül Usta, Bülent Öztürk
Karadeniz Technical University
Türkiye

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HALL KARADENİZ / SALON KARADENİZ**WELDING METALLURGY
KAYNAK METALURJİSİ**Session Chairman / Oturum Başkanı: **CANER BATIGÜN**

- 16:30-16:45 Lazer Kaynaklı Haynes 188 Süper Alaşımının Karakterizasyonu**
Characterization of Laser Welded Haynes 188 Superalloy
Akın Odabaşı, Necip Ünlü, Gültekin Göller, E. Sabri Kayalı, M. Niyazi Eruslu
Istanbul Technical University
Türkiye
- 16:45-17:00 Doğal Gaz ve Petrol Boru Hattı Kaynaklarının Sulu H₂S İçeren Asidik Ortamlardaki Davranışları**
Behaviors of Oil and Gas Pipeline Steels in Wet H₂S Containing Environment
A. Kadir Uysal¹, Nurhan Cansever²
¹Ümrân Çelik Boru Sanayii A.Ş., ²Yıldız Technical University
Türkiye
- 17:00-17:15 The Effect of Different Filler Metals on the Mechanical Properties and Corrosion Resistance of Welded 316L Stainless Steel**
Mohammad Esmailian¹, Morteza Esmaily²
Saveh Azad university¹, Iranian Research Organization for Science and Technology²
Iran
- 17:15-17:30 Metallurgical Changes in the Forge Weld Area During High-Frequency Electric Resistance Welding**
Rahim Sali Maksuti¹, Hamit Mehmeti², Mursel Rama¹, Nexhat Cerini³
¹University of Pristina, ²State University of Tetova, ³Pipe Factory Ferizaj
Kosova
- 17:30-17:45 Investigation on the Arc Thermal Efficiency of the Gas Tungsten Arc Welding**
Mammad Nasiri, Alireza Ebrahimi
Sahand Technical University
Iran

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HALL MARMARA / SALON MARMARA**METALLIC MATERIALS 1
METALİK MALZEMELER 1**Session Chairman / Oturum Başkanı: **AHMET TOPUZ**

- 10:00-10:15 Sementasyon Yapılmış Dişli Malzemesinde Hasar Analizi**
Failure Analysis of Cementation Treated Gear
Şadi Karagöz, Fulya Kahrıman, Funda Gül Demircan
Kocaeli University
Türkiye
- 10:15-10:30 Aşınma Dayanımı için İstatistiki Model**
A Statistical Model for Wear Resistance
Mehmet Şimşir, Burhan Selçuk, Sertel Dikmen, Nevzat Aslan
Cumhuriyet University
Türkiye
- 10:30-10:45 Farklı Yaşlandırma Prosedürlerinin 7033 Alüminyum Alaşımının Mikroyapı, Sertlik ve Aşınma Davranışları Üzerindeki Etkisi**
Effect of Different Aging Procedures on Microstructure, Hardness and Wear Behaviour of 7033 Aluminum Alloy
Muzaffer Zeren¹, Erdem Karakulak¹, Onur Birbaşar²
¹Kocaeli University, ²Assan Alüminyum Sanayi A.Ş.
Türkiye
- 10:45-11:00 Effect of the Strain-Hardening on the Wear and Corrosion Behaviour of a Fe-Mn-Al Alloy**
Frederico Augusto Pires Fernandes¹, Stenio Cristaldo Heck¹, George E. Totten², C.A.Picon³, Luiz Carlos Casteletti¹
¹University of Sao Paulo, ²Portland State University, ³Engineering School of Ilha Solterea
Brazil

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METALLIC MATERIALS 2

METALİK MALZEMELER 2

12 November - 12 Kasım 2010

HALL MARMARA / SALON MARMARA

**NON-FERROUS METALLURGY /
DEMİR DIŞI METALLER METALURJİSİ**Session Chairman / Oturum Başkanı: **CÜNEYT ARSLAN**

- 15:00-15:15** **Chemical and Electrochemical Behavior of Different Additives in Copper Electrorefining**
Michael Stelter, Harmut Bombach, Vasily Nakostenko
Institute for Nonferrous Metallurgy and Purest Materials
Germany
- 15:15-15:30** **Hızlı Klor Uzaklaştırmasının Elektrolitik Magnezyum Üretimi Üzerine Etkileri**
Effects of Rapid Chlorine Removal on the Electrolytic Magnesium Production
Gökhan Demirci, İshak Karakaya
Middle East Technical University
Türkiye
- 15:30-15:45** **The Effect of Ultrasound Irradiation on the Morphology of Ni Powder Synthesized by Electrodeposition**
Mahdiyar Hoobakht¹, Alireza Zakeri¹, Alireza Shahidi²
¹Iran University, ²Sharif University of Technology
Iran
- 15:45-16:00** **Lateritik Türk Cevherinin Yüksek Basınç Altında Asit Liçi**
High Pressure Acid Leaching of a Turkish Laterite Ore
Şerif Kaya, Yavuz A. Topkaya
Middle East Technical University
Türkiye
- 16:00-16:15** **Kalsiyum Molibdatın Okzalik Asit Çözeltilerinde Çözünürleştirilmesi**
Dissolution of Calcium Molybdate in Oxalic Acid Solutions
Sedat İlhan, Ahmet Orkun Kalpaklı, Cem Kahraman, İbrahim Yusufoğlu
Istanbul University
Türkiye

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HALL MARMARA / SALON MARMARA**RECOVERY AND ENVIRONMENTAL PRECAUTIONS
IN METALLURGY / GERİ KAZANIM VE METALURJİDE
ÇEVRE KORUYUCU ÖNLEMLER**Session Chairman / Oturum Başkanı: **İSMAİL DUMAN**

- 16:30-16:45 Chloride Removal from the Secondary Source of Zinc by Pyro- and Hydro-Metallurgical Treatments**
Nafiseh Dakhili, H. Razavizadeh, S.H. Seyedein, M.T. Salehi
Iran University of Science and Technology
Iran
- 16:45-17:00 Solid Waste Utilisation – An Initiative at Bhilai Steel Plant, Sail, India**
S. V. Nandanwar, S. Shekar
Steel Authority of India Ltd.
India
- 17:00-17:15 Impact of Ferro-Nickel Slag in Improve the Mechanical-Physical Properties of Consumable Layer of Asphalt Concrete**
Izet Ibrahim¹, Musa Rizaj², Nurten Deva², Agim Ramadani³
¹Korporata Energjetike e Kosova, ²University of Prishtina, ³Xella-Kosova L.L.C.
Kosova
- 17:15-17:30 Geri Dönüştürülmüş Lastik Atıklarının Bitümlü Sıcak Karışımların Performansına Etkisinin İncelenmesi**
Effects of Recyled Waste Tires in Hot Bituminous Mixtures
Esin Günay², İbrahim Sönmez¹, Aydın Topçu¹, Mustafa Kara², Seyit Ali Yıldırım¹, Bayise Kavaklı²
¹İSFALT A.Ş., ²TÜBİTAK Marmara Research Center
Türkiye
- 17:30-17:45 Combined Effect of Water Contamination with Cobalt and Nickel on Metabolism of Albino Wistar Rats**
Zine Kechrid, Faouzi Dahdouh
University of Annaba
Algeria

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HALL 3 / SALON 3**METALLIC MATERIALS 4
METALİK MALZEMELER 4**Session Chairman / Oturum Başkanı: **C. HAKAN GÜR**

- 15:00-15:15 Dislocation-Kinetic Approach to the Analysis of Deformation Mechanisms of Metals and Alloys**
Igor V. Alexandrov, Rosa Chembarisova
Ufa State Aviation Technical University
Russia
- 15:15-15:30 Analysis of Strain Rate Sensitivity of Nanostructured Materials**
Hyoung Seop Kim
Pohang University of Science and Technology
South Korea
- 15:30-15:45 Eş Kanallı Açısal Ekstrüzyon Yönetiminin Bazı HMK, YMK ve SDH Yapılı Malzemelere Uygulanması: Mikroyapı-Mekanik Özellik İlişkisi**
Application of Equal-Channel Angular Extrusion to Some BCC, FCC and HCP Materials: Microstructure-Property Relationship
Gençağa Pürçek¹, Onur Saray¹, İbrahim Karaman², Tevfik Küçükömeroğlu¹
¹Karadeniz Technical University, ²Texas A&M University
Türkiye
- 15:45-16:00 Investigation of Texture of Copper Processed by New Route of ECAP**
Farideh Salimyanfard, Mohammad Reza Toroghinejad, Fakhredin Ashrafizadeh
Isfahan University of Technology
Iran
- 16:00-16:15 6061 Al-Alaşımlı Plakaların Değişik Kanallı Açısal Presleme Yöntemiyle Aşırı Plastik Deformasyonu**
Severe Plastic Deformation of Al-6061 Sheets by Dissimilar Channel Angular Pressing
Evren Tan¹, Alp Aykut Kibar², C. Hakan Gür¹
¹Middle East Technical University, ²TÜBİTAK
Türkiye

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12 November - 12 Kasım 2010

HALL 3 / SALON 3**METALLIC MATERIALS 5
METALİK MALZEMELER 5**Session Chairman / Oturum Başkanı: **RIZA GÜRBÜZ**

- 16:30-16:45 Characterization of Mechanically Alloyed Fe-Mn-Si-Cr-Ni Shape Memory Alloys – Hot Rolling Effects**
Vasile Dia¹, Umut Söyler², Bogdan Pricop³, Burak Özkal², Leandru-Gheorghe Bujoreanu³
¹Arceleor Mittal Tubular Products Iasi, ²Istanbul Technical University, ³The “Gheorghe Asachi” Technical University from Iasi
 Romania, Turkey
- 16:45-17:00 Hot and Cold Deformability of Lead-Based Alloys**
Taher El-Bitar¹, Walid Hassan², Nader Hassan³, Safaa Abo El-El²
¹Central Metallurgical R&D (CMRDI), ²Helwan Co., ³Helwan University
 Egypt
- 17:00-17:15 Biyel Kolu Yarı Sıcak Dövme Projesi**
 Warm Forging of a Connecting Rod
Gürbüz Güzey¹, Achim Schott²
¹OMTAŞ A.Ş., ²IPH Hannover
 Türkiye, Germany
- 17:15-17:30 Effects of Pre-Straining and Tempering Treatment on the Yield Strength of Fe-12Mn Steel**
Young Won Chang, Min Soo Kim
 Pohang University of Science and Technology
 South Korea
- 17:30-17:45 Effect of Deformation Strain Rate on Continuous Dynamic Recrystallization**
Beitallah Eghbali
 Sahand Technical University
 Iran

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HALL KARADENİZ / SALON KARADENİZ**IRON AND STEEL METALLURGY 1
DEMİR-ÇELİK METALURJİSİ 1**Session Chairman / Oturum Başkanı: **ABDİ AYDOĞDU**

- 10:00-10:15 Ceramic Sprayed Roll Technique "CSRT" and Solid Shell Resistance of Inner Quality of Continuously Cast Steel Slabs**
Mostafa Omar El-Bealy
Ain Shams University
Egypt
- 10:15-10:30 Effect of Top Layer, Nozzle Arrangement and Gas Flow Rate on Mixing Time in Agitated Ladles by Bottom Gas Injection**
A.N. Conejo¹, S. Kitamura², N. Maruoka², J.S. Kim²
¹Morelia Technological Institute, ²IMRAM-Tohoku University
Mexico, Japan
- 10:30-10:45 Thermodynamic Modeling of Deoxidation Products and Inclusion Chemistry in Mn/Si Killed Tire-Cord Steel**
Akula Durgavara Prasad, Sankara Raman Sankaranarayanan
National Institute of Technology Tiruchirappalli
India
- 10:45-11:00 Reaktif Sistemlerde Isıl ve Kinetik Olayların Sayısal Modellenmesi**
 Numerical Modeling of Thermal and Kinetic Phenomena in Reactive Systems
Mahmut Nedim Cınbız¹, Üner Çolak¹, Abdi Aydoğdu²
¹Hacettepe University, ²MTA
Türkiye

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HALL KARADENİZ / SALON KARADENİZ**IRON AND STEEL METALLURGY 2
DEMİR-ÇELİK METALURJİSİ 2**Session Chairman / Oturum Başkanı: **UĞUR YILMAZ**

- 11:15-11:45 Türkiye'de ve Dünya'da Demir Çelik Sektörünün Durumu**
A Review of Iron & Steel Industry: Turkey and the World
Suhat Korkmaz
Tosyalı Holding
Türkiye
(Invited Lecturer / Davetli Konuşmacı)
- 11:45-12:00 Yüksek Fırın Döküm Kanalları ve Beşik Oluk'ta Kullanılan Kanal Dövme Çamuru ile Kanal Betonu Arasındaki Aşınma Mekanizmasındaki Değişkenler**
Abrasion Reasion Variation for Resin Bonded Ramming and Low Cement Castable in the Application of Blast Furnace Main and Tilting Runner Workingline
Murat Can, Muhammet Balcı
İSDEMİR Iskenderun Iron & Steel Integrated Plant
Türkiye
- 12:00-12:15 Sürekli Döküm Tufalinden Karbotermik İndirgemeye Doğrudan İndirgenmiş Demir Üretimi**
Production of Direct Reduced Iron from Continuous Casting Mill Scale by Carbothermic Reduction
Fahri Cihan Demirci, Onuralp Yücel
Istanbul Technical University
Türkiye
- 12:15-12:30 Yüksek Fırında Kullanılan Kok ve Hammadde Kalitesinin Fırın Gaz Geçirgenliğine ve Yakıt Tüketimine Etkisi**
Effect of Coke and Raw Material Quality on Blast Furnace Permeability and Total Fuel Consumption
Murat Can
İSDEMİR Iskenderun Iron & Steel Integrated Plant
Türkiye
- 12:30-12:50 Development and Application of Mould Non-Sinusoidal Oscillation System**
Zhiheng Tian
Ramon Science & Technology Co., Ltd.
China
(Commercial Paper / Ticari Bildiri)

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HALL KARADENİZ / SALON KARADENİZ**HEAT TREATMENT
ISIL İŞLEM**Session Chairman / Oturum Başkanı: **ÖNDER YÜCEL**

- 13:30-14:00 Heat Treatment: State-Of-The Art, Future Trends**
George E. Totten
Portland State University
USA
(Invited Lecturer / Davetli Konuşmacı)
- 14:00-14:15 Determination of Heat Transfer Coefficient during High-Speed Water Quenching**
Thomas Lübben, Jochen Rath, Franz Hoffmann, Udo Fritsching,
Hans-Werner Zoch
IWT Bremen
Germany
- 14:15-14:30 Mathematical Modelling and Computer Simulation of Quenched and Tempered Steel Properties**
Bozo Smoljan, Dario Iljkic, Furio Traven
University of Rijeka
Croatia
- 14:30-14:45 Rapid Nitriding of Titanium Alloy with Atmosphere Control**
Masahiro Okumiya¹, Yoshiki Tsunekawa¹, Masatoshi Kato²
¹Toyota Technological Institute, ²Graduate Student of Toyota Technological Institute
Japan

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HALL KARADENİZ / SALON KARADENİZ**SURFACE TREATMENT 1
YÜZEY İŞLEMLERİ 1**Session Chairman / Oturum Başkanı: **MUSTAFA ÜRGEN**

- 15:00-15:15 Chromium Carbide Films Obtained by Conversion Treatment of Chromium Deposited on Carburizing Steel Substrates**
Younes Benarioua
University of M'sila
Algeria
- 15:15-15:30 Oxidation Kinetics of Pack Borided AISI 1060 and H13 Steels**
Stenio Cristaldo Heck¹, Frederico Augusto Pires Fernandes¹, George E. Totten², Luiz Carlos Casteletti¹
¹University of Sao Paulo, ²Portland State University
Brazil, USA
- 15:30-15:45 Production and Investigation of Al/SiC(Ni)_p Composites**
Judit Pazman¹, Viktor Madai¹, Jozsef Toth², Zoltan Gacsi¹
¹University of Miskolc, ²Institute of Nuclear Research
Hungary
- 15:45-16:00 Substrate Effect on Diamond Films Deposited by Hot Filament Chemical Vapour Deposition**
Mubarak Ali^{1,2}, Semih Öncel¹, Mustafa Ürgen¹
¹Istanbul Technical University, ²Comsats Institute of Information Technology
Pakistan, Türkiye
- 16:00-16:15 Plazma Sprey Prosesi ile Üretilmiş CeO₂ ve Y₂O₃ ile Stabilize Bariyer Kaplamaların Üretimi ve Karakterizasyonu**
Processing and Characterization of Plasma-Sprayed Ceria and Ytria Stabilized Zirconia TBCs
Ekrem Altuncu¹, Fatih Üstel²
¹Kocaeli University, ²Sakarya University
Türkiye

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HALL KARADENİZ / SALON KARADENİZ**SURFACE TREATMENT 2
YÜZEY İŞLEMLERİ 2**Session Chairman / Oturum Başkanı: **FATİH ÜSTEL**

- 16:30-16:45 Plain and Fretting Fatigue Behaviour of Ti6Al4V Alloy Coated with TiAlN Thin Film: Experimental and Theoretical Study**
TiAlN İnce Film ile Kaplanmış Ti6Al4V Alaşımının Basit ve Sürtünme Koşullarındaki Aşınma Davranışı: Deneysel ve Teorik Çalışma
Akgün Alsaran, Fatih Yıldız, Fatih Yetim
Atatürk University
Türkiye
- 16:45-17:00 Fiziksel Buhar Biriktirme (FBB) Yöntemiyle Kaplanmış Takım Çeliğinin Isıl Yorulma ve Aşınma Performans Testleri**
Thermal Fatigue and Wear Testing of PVD Coated Hot Work Tool Steel under Steel Thixoforming Conditions
Duygu İşler¹, Yücel Birol¹, Mustafa Ürgen²
¹TÜBİTAK Marmara Research Center, ²Istanbul Technical University
Türkiye
- 17:00-17:15 Kriyojenik İşlem Görmüş Soğuk İş Takım Çeliklerinin Karakterizasyonu**
Characterization of Cryogenically Heat Treated Cold-Work Tool Steels
F. Koray¹, İbrahim Altınsoy¹, Aziz Hatman², Mediha İpek¹, Sakin Zeytin¹, Cuma Bindal¹
¹Sakarya University, ²Assab Çelik ve Isıl İşlem A.Ş.
Türkiye
- 17:15-17:30 Karbürlenmiş, Nitrülenmiş, Nitro-Karbürlenmiş ve Borlanmış Düşük Karbonlu Çeliklerin Kuru Sürtünme Şartları Altında Sürtünme ve Aşınma Dirençlerinin Karşılaştırılması**
Comparison of Friction and Wear Resistance of Low Carbon Steels Subjected to Carburizing, Nitrocarburizing and Boriding Treatments under Dry Sliding Conditions
Güldem Kartal¹, Christine Matta², Levent Eryılmaz², Servet Timur¹, Ali Erdemir²
¹Istanbul Technical University, ²Argonne National Laboratory
Türkiye
- 17:30-17:45 AISI 5140 Çeliklerinin Pulse Plazma Teknolojisi ile Yüzey Modifikasyonu ve Karakterizasyonu**
Structural Characterization of AISI 5140 Steel Modified by a Pulse-Plasma Technique
Aysun Ayday, S. Can Kurnaz, Mehmet Durman
Sakarya University
Türkiye

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HALL MARMARA / SALON MARMARA

CASTING 1

DÖKÜM 1

Session Chairman / Oturum Başkanı: **KAZIM TUR**

10:00-10:15	Rotary Degassing and Porosity Phenomena in Aluminium Castings <i>Derya Dispinar¹, Shahid Akhtar², Arne Nordmark¹, Marisa Di Sabatino¹, Lars Arnberg²</i> <i>¹SINTEF Materials and Chemistry, ²NTNU</i> <i>Norway</i>
10:15-10:30	A356 Aluminium Alloy Modified by Ce Addition <i>El-Zahraa M. El-Baradie¹, Salah S. Ezz²</i> <i>¹CMRDI, ²Cairo University</i> <i>Egypt</i>
10:30-10:45	Phase Field Simulation of Dendritic Solidification of a Binary Alloy in Presense of Melt Convection <i>Hadi Barati, M. Reza Aboutalebi, Saeed Shabestari</i> <i>Iran University of Science and Technology</i> <i>Iran</i>
10:45-11:00	Development of an Environmentally Sustainable Foundry Sand Binder <i>Thang Nguyen^{1,2}, John Carrig^{1,2}, Danny Moran^{1,2}, Xiaoqing Zhang³, Sarah Khor³</i> <i>¹CAST Cooperative Research Centre, ²CSIRO Process Science and Engineering, ³CSIRO Materials Science and Engineering</i> <i>Australia</i>

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HALL MARMARA / SALON MARMARA**CASTING 2
DÖKÜM 2**Session Chairman / Oturum Başkanı: **ALİ KALKANLI**

- 11:15-11:30 Ingate Velocity of Castings Produced in Air Impulse Molding System**
Sahar Ghafurian, N. Najmoddin, S. M. A. Boutorabi
Iran University of Science and Technology
Iran
- 11:30-11:45 Küresel Grafitli Dökme Demir Dökümlerinde Modül ve Kimyasal Bileşimin Katılma ve Hacimsel Değişime Etkileri**
The Effect of Casting Modulus and Chemical Analysis on the Solidification and Chemical Analysis of Ductile Iron Castings
İbrahim Arda¹, Murat Çolak², Selçuk Şirin³, Ramazan Kayıkcı²
¹Anadolu Döküm A.Ş., ²Sakarya University, ³DTS Teknoloji Eğitim Danışmanlık
Türkiye
- 11:45-12:00 Study and Modification of Naturally- Pressurized Running System:The Effect of Ceramic Filters**
Hatef Hashemi¹, Ramin Raeiszadeh², Minoosh Khodadad¹
¹MSc in Metallurgy and Materials, ²University of Kerman
Iran
- 12:00-12:15 Using Flow Simulation to Cure Production Problems**
Lawrence E. Smiley, David Schmidt
Finite Solutions Inc
USA
- 12:15-12:30 Effects of the Rotation Velocity and Mold Pre-Heating Temperature on the Mechanical Properties of A413 Alloy by Vertical Centrifugal Casting**
A.R. Modaresi, M.Pourabdollah, J.Naeeni
Islamic Azad University
Iran

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HALL MARMARA / SALON MARMARA**CERAMICS, GLASSES, REFRACTORIES 1/
SERAMİK, CAM, REFRAKTER MALZEMELER 1**Session Chairman / Oturum Başkanı: **BEKİR KARASU**

- 13:30-13:45** **Talk İlavesinin Porselen Karo Ürün Özelliklerine Etkisi**
The Effect of Addition of Talc on Porcelain Tile Product Properties
Zahide Bayer Öztürk, Nuran Ay
Anadolu University
Türkiye
- 13:45-14:00** **Elektrik Akımı Destekli Sinterleme (SPS) Yöntemi ile Üretilmiş SiAlON Seramiklerinde Mikro yapının Tribolojik Özelliklere Etkisi**
The Effect of Microstructure on Tribological Properties of SiAlON Ceramics Sintered by Spark Plasma Sintering (SPS) Technique
Bilge Yaman¹, Hasan Mandal²
¹Eskişehir Osmangazi University, ²Anadolu University
Türkiye
- 14:00-14:15** **Bor Karbür-Titanyum Borür Seramiklerinin Spark Plazma Sinterleme (SPS) Metoduyla Üretimi ve Karakterizasyonu**
Production and Characterization of Boron Carbide-Titanium Diboride Ceramics by Spark Plasma Sintering Method
Berkay Uygun, Gültekin Göller, Onuralp Yücel, Filiz Şahin
Istanbul Technical University
Türkiye
- 14:15-14:30** **Effects of Compositional Design on the Microstructural Properties and Stain Resistance of Polished Porcelain Tile Bodies**
Kimyasal Kompozisyon Tasarımının Parlatılmış Porselen Yapıların İçyapı Özelliklerine ve Lekelenme Direncine Olan Etkileri
Neslihan Tamsü^{1,2}, Ender Suvacı¹, Hidayet Özdemir²
¹Anadolu University, ²Vitra Tiles Inc.
Türkiye
- 14:30-14:45** **A Proposed Mechanism for Fatigue of PZT Thin Films**
Ebru Menşur Alkoy¹, Tadashi Shiosaki²
¹Maltepe University, ²Nara Institute of Science and Technology
Japan, Türkiye

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HALL MARMARA / SALON MARMARA**CERAMICS, GLASSES, REFRACTORIES 2 /
SERAMİK, CAM, REFRAKTER MALZEMELER 2**Session Chairman / Oturum Başkanı: **ENDER SUVACI**

- 15:00-15:15** **Piezoelektrik Seramiklerin Alginate Jelleşmesi Yöntemiyle Fiber Formunda Şekillendirilmesi**
Preparation of Piezoelectric Ceramics in Fiber Form using Alginate Gelation Method
Sedat Alkoy, Emre Tekel, A. Serkan Tekdaş
Gebze High Technology Institute
Türkiye
- 15:15-15:30** **The Effect of Boron Oxide Content on the Phosphorescence Mechanism of Strontium Aluminate Phosphors**
Bor-Oksit Miktarının Stronsiyum Alüminat Fosforların Fosforesan (Isı Vermeden Işıma) Mekanizmasına Etkisi
Selvin Yeşilay Kaya, Bekir Karasu, Erkul Karacaoğlu
Anadolu University
Türkiye
- 15:30-15:45** **TiO₂ ile Takviye Edilmiş Al₂O₃ Esaslı Tek Kristal Seramiklerin Karakteristik Özelliklerinin Safir ile Karşılaştırılması**
Characteristic Features of Al₂O₃ based Single Crystal Ceramics Doped with TiO₂ – A Comparison with Sapphire
Serkan Abalı¹, Ahmet Ekerim²
¹Çanakkale Onsekiz Mart University, ²Yıldız Technical University
Türkiye
- 15:45-16:00** **Mekanik Bilyalı Öğütmeyle Yüksek Etkinlikte Fotokatalitik TiO₂ Tozunun Hazırlanması**
Production of Highly Efficient Photocatalytic TiO₂ by Mechanical Ball Milling
Başak Aysin¹, Esra Çorapçı¹, Jongee Park², Abdullah Öztürk¹, Muharrem Timuçin¹
¹Middle East Technical University, ²Atılım University
Türkiye
- 16:00-16:15** **Preparation of Hydroxyapatite Microtube using Hydrothermal Process in the Presence of Titania**
Hiroko Takahashi¹, Masanobu Kamitakahara¹, Setuaki Murakami², Noriaki Watanabe¹, Koji Loku¹
¹Tohoku University, ²National Institution of Advance Industrial Science and Technology
Japan

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HALL MARMARA / SALON MARMARA

CERAMICS, GLASSES, REFRACTORIES 3/ SERAMİK, CAM, REFRAKTER MALZEMELER 3

Session Chairman / Oturum Başkanı: **MUHARREM TİMUÇİN**

- 16:30-16:45** **TeO₂-WO₃ Sisteminde Karakterizasyon Çalışmaları**
 Characterization Studies in the TeO₂-WO₃ System
Miray Çelikkilek, Ali Erçin Ersundu, Nuri Solak, Süheyla Aydın
Istanbul Technical University
Türkiye
- 16:45-17:00** **Uçucu Küllerin Cam Köpük Üretiminde Değerlendirilmesi**
 The Usability of Fly Ash in Glass Foam Production
Anıl Şahin¹, Ediz Ercenk¹, Şenol Yılmaz¹, Volkan Günay²
¹Sakarya University, ²TÜBİTAK Marmara Research Center
Türkiye
- 17:00-17:15** **MgO-ZrO₂ Döküm Yolluklarının Üretim Parametrelerinin İncelenmesi**
 Investigation of MgO-ZrO₂ Foundry Nozzles Production Parameters
Yasemin Demirci¹, Güzin Müge Lüle², Hasan Bağlama², Volkan Günay¹
¹TÜBİTAK Marmara Research Center, ²Anadolu Mühendislik
Türkiye
- 17:15-17:30** **MgO-C Tuğla Oksidasyonunu Önleyici Kaplama Uygulaması**
 Anti-Oxidation Coating of MgO-C Brick
Ziya Aslanoğlu, Çetin Bağlan
Süperateş Ateşe Mukavim Malzeme Sanayi A.Ş.
Türkiye
- 17:30-17:45** **Interactions between Sulphurdioxide Bearing Gases and Magnesite Based Refractories**
N. Ziyanda Fotoyi, Hurman Rauf Eric
University of the Witwatersrand
South Africa

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POSTER SESSION / POSTER SUNUMLARI

NANOMATERIALS / NANO MALZEMELER

- NM-01** **Karbon Kaplanmış SiO_2 'de Karbotermal Redüksiyonla Nanokristal SiC Toz / Whisker Sentezi**
 Synthesis of Nanocrystalline SiC Powders / Whisker by Carbothermal Reduction of Carbon Coated SiO_2
Şenol Çetinkaya, Şerafettin Eroğlu
Istanbul University
Türkiye
- NM-02** **Gümüş Nanotellerin Üretimi ve Üretim Parametrelerinin Belirlenmesi**
 Synthesis of Silver Nanowires and Determination of Process Parameters
Şahin Coşkun, H. Emrah Ünal
Middle East Technical University
Türkiye
- NM-03** **Çok Küçük Borik Asit Parçacıklarının Üretilmesi için Yeni Bir Yaklaşım**
 A Novel Approach to Produce Ultrafine Boric Acid Particles
Mehmet İkbāl Işık, Özgenur Kahvecioğlu, Servet Timur
Istanbul Technical University
Türkiye
- NM-04** **Nanoteknoloji Nedir?**
 What is Nanotechnology?
Yusuf Ziya Kayır, Etem Gündüz Baççıl
KOSGEB Sincan
Türkiye
- NM-05** **Sentez Yöntemlerinin $\text{Ca}_3\text{Co}_4\text{O}_9$ Nanotozlarının Termoelektrik Özellikleri Üzerindeki Etkisi**
 Effect of Synthesis Methods on Thermoelectric Properties of $\text{Ca}_3\text{Co}_4\text{O}_9$ Nanopowders
Murat Güneş, A. Macit Özenbaş
Middle East Technical University
Türkiye
- NM-06** **Boya ile Uyarılmış Güneş Pilleri İçin ITO Nanoparçacık, Nanotel ve İnce Film Üretimi**
 Production of ITO Nanoparticles, Nanowires and Thin Films for Dye-Sensitized Solar Cells
Halil İbrahim Yavuz, A. Macit Özenbaş
Middle East Technical University
Türkiye
- NM-07** **Çinko Oksit Nanotellerin Hidrotermal Yöntemlerle Üretilmesi ve Üretim Parametrelerinin Belirlenmesi**
 Synthesis of Zinc Oxide Nanowires by Hydrothermal Method and Determination of Process Parameters
Ayşegül Afal, Mehmet Can Akgün, H. Emrah Ünal
Middle East Technical University
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- NM-08** **Silisyum Nanotellerin Üretimi ve Üretim Parametrelerinin Belirlenmesi**
 Fabrication of Silicon Nanowires and Determination of the Process Parameters
Bariş Özdemir, Mustafa Kulakcı, Raşit Turan, H. Emrah Ünalın
Middle East Technical University
Türkiye
- NM-09** **Ultrasonik Destekli Sol-Jel Yöntemiyle Üretilen CuO Nanoyapılarında Kristal Büyümesinin İncelenmesi**
 Investigation of Crystal Growth on CuO Nanostructures Produced by Ultrasonic Assisted Sol-Gel Process
Burçak Ebin, Sebahattin Gürmen, Cüneyt Arslan
Istanbul Technical University
Türkiye
- NM-10** **NaA Zeolite Synthesized in Fluidized Bed Reactor**
Irena G. Markovska, Dimitar Georgiev, Bogdan Bogdanov, Yancho Hristov, Ivan Petrov
Assen Zlatarov University
Bulgaria

COMPOSITE MATERIALS / KOMPOZİT MALZEMELER

- CM-01** **Magnezyum Silisit Partikül Takviyeli Alüminyum-Magnezyum-Silisyum Matrisli Kompozitlerin Mekanik Özelliklerine ve Korozyon Davranışına Kurşunun Etkisinin İncelenmesi**
 The Effect of Lead on the Mechanical Properties of Aluminum-Magnesium-Silicon Matrix Composite Reinforced with Magnesium Silicide Particulate
Hayrettin Ahlatcı, Aydın Durmaz, Ali Palta, Mustafa Acarer
Karabük University
Türkiye
- CM-02** **Yer Karosu Atıklarının Agrega Olarak Betonda Kullanılabilirliği**
 Usability of Floor Tile Waste as Aggregate in Concrete
Yasemin Tabak¹, Mustafa Kara¹, Esin Günay¹, Şenol Yılmaz²
¹TÜBİTAK Marmara Research Center, ²Sakarya University
Türkiye
- CM-03** **Metal Matrix Composite: Stretching to the Limit for 2024 series**
Rupa Dasgupta, Amol Kumar Jha, Satyabrata Das
Advanced Material and Processes Research Institute
India
- CM-04** **Mechanical Response and Environmental Ageing of Fabric Composite**
Abdelghani Naceri
M'sila University
Algeria
- CM-05** **Structure of Hard Composite Layers Deposited by Plasma ARC**
Nicolae Jumate, Ioan Vida - Simiti
Technical University of Cluj-Napoca
Romania

POSTER SESSION / POSTER SUNUMLARI

- CM-06** **Synthesis of Nanocrystalline Al_2O_3 Powder via Mechanical Activation and Investigation of the Mechanical Behavior of Nano-Composite $\text{Al-Al}_2\text{O}_3$**
Mohsen Hosseinzadeh¹, Omid Mirzaee¹, Mansour Razavi², Peyman Saidi³
¹Semnan University, ²Materials and Energy Research Center, ³Ferdowsi University
 Iran
- CM-07** **Effects of Ceramic Additives on Mechanical Properties of Alumina Matrix Composites**
Viktor Orosz, A. Laszlo Gömze
 University of Miskolc
 Hungary
- CM-08** **The Effect of Phosphorous on the Microstructure and Tensile Properties of Cast in-Situ $\text{Al-15\%Mg}_2\text{Si}$ Metal Matrix Composite**
Noushin Nasiri, Masud Emamy
 Tehran University
 Iran
- CM-09** **Effect of Fibre Geometry on Toughness Indices of Steel Fibre Reinforced Refractory Concrete**
Miloud Beddar
 M'sila University
 Algeria
- CM-10** **Advances in the Fabrication of Al Alloy Silicon Carbide Composite**
Rajesh Kumar Bhushan¹, Sudhir Kumar², S. Das³
¹Shri Mata Vaishno Devi University, ²Noida Institute of Engineering and Technology
 Greater Noida, ³Advanced Materials and Processes Research Institute
 India
- CM-11** **Effect of Hot Rolling Process on Microstructural and Hardness Properties of Al-SiC Composites**
Akbar Heidarpour, Ali Shafyei
 Isfahan University of Technology
 Iran
- CM-12** **Effects of Al_2O_3 Nano-particle on the Solid Solubility Extension of 7wt.%Cr in Cu during Mechanical Alloying**
Saeed Sheibani, Abolghasem Ataie, Saeed Heshmati Manesh
 University of Tehran
 Iran
- CM-13** **Fabrication of Al/SiC Nano-Composite Powders VIA-IN Powder Metallurgy (IPM) Method**
M. Moazami Goudarzi¹, F. Akhlaghi²
¹Islamic Azad University, ²University of Tehran
 Iran

POSTER SESSION / POSTER SUNUMLARI

MATERIALS CHARACTERIZATION / MALZEME KARAKTERİZASYONU

- MC-01** **İkiz Mordane Döküm Yöntemiyle Üretilen AA5XXX ve AA6XXX Serisi Alüminyum Alaşımlarında Görülen Segregasyonların Fiziksel ve Kimyasal İncelenmesi**
Physical and Chemical Investigation of Segregations in AA5XXX and AA6XXX Series Aluminum Alloys Produced by Twin Roll Casting Method
Zeynep Sirel¹, Metin Usta²
¹Sarkuysan Elektrolitik Bakır Sanayii ve Ticaret A.Ş., ²Gebze High Technology Institute
Türkiye
- MC-02** **Proses Şartlarının Etilen-Vinil-Asetat (EVA) Polimerinin Köpük Oluşumuna Etkilerinin İncelenmesi**
The Effect of Process Parameters on the Formation of Polymer Foam in the Ethylene-Vinyl-Acetate (EVA)
Hakan Yetgin, Hüseyin Ünal
Sakarya University
Türkiye
- MC-03** **Gadolinyum Asetat Hidratın Termal Bozunma Davranışı**
Thermal Decomposition Behavior of Gadolinium Acetate Hydrate
Aliye Arabacı, Sebahattin Kırtay, Melek Cumbul Altay
Istanbul University
Türkiye
- MC-04** **Amonyum Heptamolibdat Tetrahidratın Nonizotermal Koşullarda Isıl Bozunma Adımlarının Kinetiği**
Kinetics of Thermal Decomposition Steps of Ammonium Heptamolybdate Tetrahydrate under Non-isothermal Conditions
Aliye Arabacı, Kemal Can Kevser, İbrahim Yusufoglu
Istanbul University
Türkiye
- MC-05** **Modifiye Edilmiş Sol-Jel Prosesiyle Stronsiyum Alüminat Esaslı Fosforesans Malzeme Sentezi**
Synthesis of Strontium Aluminates Phosphorescence Material by Modified Sol-Gel Process
Cem Karakaş, M.Okan Arıkan, Nuri Solak, Süheyla Aydın
Istanbul Technical University
Türkiye
- MC-06** **Düşey Sürekli Döküm Yöntemi ile Üretilen Biletlerde Kullanılan AlTiB Tane Çekirdekleyicilerin Kıyaslanması**
Comparison of the AlTiB Grain Refinement in the Billets that Produced by Direct Chill Casting
Koray Turbanlioğlu¹, Yavuz Sun²
¹Atlas Alüminyum, ²Karabük University
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- MC-07** **Samaryum Katkılı Seryum Oksitin Termal Bozunma Davranışının İncelenmesi**
 The Investigation of the Thermal Decomposition Behavior of Samarium-Doped Ceria
Aliye Arabacı¹, Nuri Solak²
¹Istanbul University, ²Istanbul Technical University
 Türkiye
- MC-08** **Çukur İmla ve Patlama Şekillendirmeli Delici Uygulamalarında Kullanılan Astar Malzemeleri**
 Liner Materials used in Shaped Charge and Explosively Formed Penetrator Applications
M. Kaan Pehlivanoğlu
 TÜBİTAK SAGE
 Türkiye
- MC-09** **Uçaklarda Görülen Korozyonun Girdap Akımları Tekniği ile Tespiti**
 Determination of Corrosion with Eddy Current Techniques in Aircraft Structure
Özgür Ergin Korkmaz¹, Melih Onursal¹, Ergün Keleşoğlu², Adem Bakkaloğlu²
¹Mytechnic Aircraft Mro Services, ²Yıldız Technical University
 Türkiye
- MC-10** **Girdap (EDDY) Akımları ile Elektriksel İletkenlik Tayini ve İletkenliği Etkileyen Faktörler**
 Determination of Electrical Conductivity with Eddy Current and the Factors Affecting Conductivity
Melih Onursal¹, Özgür Ergin Korkmaz¹, Adem Bakkaloğlu², Ergün Keleşoğlu²
¹Mytechnic Aircraft Mro Services, ²Yıldız Technical University
 Türkiye
- MC-11** **TiNi Şekil Bellekli Alaşımların Termo-Mekanik Karakterizasyonunda Kullanılabilecek Bir Test Cihazının Tasarımı**
 Design of a Testing Machine for the Thermo-Mechanical Characterization of TiNi Shape Memory Alloys
Fatih Yaşar¹, M. Kaan Pehlivanoğlu¹, A. Şakir Bor²
¹TÜBİTAK SAGE, ²Middle East Technical University
 Türkiye
- MC-12** **Bilyeli Dövme Uygulanmış Çelik Parçalarda Yüzey Kalıntı Gerilmelerin Mikro-Manyetik Yöntemle Tahribatsız Olarak Ölçülmesi**
 Non-Destructive Measurement of Residual Stresses in Shot-Peened Components by Micro-Magnetic Method
Serdar Savaş¹, İbrahim Çam², C. Hakan Gür²
¹Marmara Teknoloji Merkezi, ²Middle East Technical University
 Türkiye
- MC-13** **Rietveld Metoduyla Böhmit Faz Geçişlerinin Kantitatif Olarak Belirlenmesi**
 Quantitative Determination of Boehmite Phase Transitions by Rietveld Method
Esin Günay, Yusuf Öztürk, Meryem Sarıgüzel, Yasemin Demirci
 TÜBİTAK Marmara Research Center
 Türkiye

POSTER SESSION / POSTER SUNUMLARI

- MC-14** **Cam Yüzeyindeki Krom İnce Filminin X-Işını Difraksiyonu ile Reflektivite Analizi**
 Reflectivity Analysis of Chromium Thin Film on the Surface of Glass by X-Ray Diffraction
Yasemin Demirci, Yusuf Öztürk, Meryem Sarıgüzel, Esin Günay
 TÜBİTAK Marmara Research Center
 Türkiye
- MC-15** **X-Işını Difraksiyonu ile Tungsten Malzemede Kalıntı Gerilmesi Ölçümü**
 Residual Stress Measurement in Wolfram Material by X-Ray Diffraction
Meryem Sarıgüzel, Yusuf Öztürk, Yasemin Demirci, Esin Günay
 TÜBİTAK Marmara Research Center
 Türkiye
- MC-16** **X-Işını Difraksiyonu ile Haddelenmiş Bakır Numunesine Ait Tekstür Ölçümü**
 Texture Measurement of Rolled Copper Material by X-Ray Diffraction
Yusuf Öztürk, Yasemin Demirci, Meryem Sarıgüzel, Esin Günay
 TÜBİTAK Marmara Research Center
 Türkiye
- MC-17** **Characterization of Equal Channel Angular Pressed AISI 1020 Steels by Magnetic Barkhausen Noise Analysis**
Zeliha Kara¹, İbrahim Çam¹, C.Hakan Gür¹, Marina Abramova², Igor Alexandrov²
¹Middle East Technical University, ²UFA State Aviation Technical University
 Russia, Türkiye

BIOMATERIALS / BİYO-MALZEMELER

- BM-01** **Sol-Jel Yöntemiyle Üretilmiş Alümina-Bovine Hidroksiapatit Kompozit Tozlarının Karakterizasyonu**
 Characterization of Sol-Gel Derived Alumina-Bovine Hydroxyapatite Composite Powders
Azade Yelten¹, Suat Yılmaz¹, Faik N. Oktar²
¹Istanbul University, ²Marmara University
 Türkiye
- BM-02** **Hidrotermal Metodlar ile Alçıtaşından Hidroksiapatit Sentezlenmesi**
 Hydrothermal Synthesis of Hydroxyapatite from Gypsum
Onur Rauf Bingöl, Caner Durucan
 Middle East Technical University
 Türkiye
- BM-03** **Modifiye Edilmiş Tükürük Çözeltilerinin Ortodontik Teller Üzerine Etkisi ve Yüzey Karakterizasyonu**
 Effect of Modified Saliva Solutions on Orthodontic Wires and Surface Characterization
H.İbrahim Ünal, Hakan Atapek, Sibel Zor
 Kocaeli University
 Türkiye

POSTER SESSION / POSTER SUNUMLARI

- BM-04** Carbonate Hydroxyapatite Prepared by Hydrothermal Treatment of Calcium Carbonate
 Woonkyoung Park¹, Zulhusmi bin Mohamad¹, Masanobu Kamitakahara¹, Noriaki Watanabe¹, C. Bulent Ustundag², Koji Loku¹
¹Tohoku University, ²Yıldız Technical University
 Japan, Turkey
- BM-05** Synthesis of Designed Hydroxyapatite Particles using Hydrothermal Process
 Masanobu Kamitakahara¹, Natsuko Ito¹, Yuki Enari¹, Noriaki Watanabe¹, Koji Loku¹, C. Bulent Ustundag²
¹Tohoku University, ²Yıldız Technical University
 Japan
- BM-06** Preparation and Characterization of Granules Composed of Rod-Shaped β -Tricalcium Phosphate Particles
 Ryosuke Fujii¹, Masanobu Kamitakahara¹, Noriaki Watanabe¹, Tohru Ikeda², Koji Loku¹
¹Tohoku University, ²Nagasaki University
 Japan
- BM-07** The Effect of Microwave Sintering on Bovine Bone Hydroxyapatite
 Djamel Belamri¹, Nouredine Kerboua², Abdelhamid Harabi²
¹Mohammed Khider University, ²Mentouri University
 Algeria
- BM-08** Effects of High-Pressure Torsion Processing on Microstructure and Mechanical Properties of Biomedical β -type Titanium Alloys
 Hakan Yilmazer¹, Mitsuo Niinomi¹, Toshikazu Akahori², Masaaki Nakai¹, Yoshikazu Todaka³
¹Tohoku University, ²Meijo University, ³Toyohashi University of Technology
 Japan

POWDER METALLURGY / TOZ METALURJİSİ

- PM-01** Yüksek Oranda Gözenek İçeren 17-4 Ph Paslanmaz Çeliğin Toz Metalurjisi Yöntemi ile Üretimi
 Production of Highly Porous 17-4 Ph Stainless Steel by Powder Metallurgy Method
 İlven Mutlu, Enver Oktay
 İstanbul University
 Türkiye
- PM-02** Manyetik Nikel Demir Alaşımlarının Mikrodalga Sinterleme Yöntemiyle Üretilmesi
 Microwave Sintering of Magnetic Ni-Fe Alloys
 Arcan F. Dericioğlu, Derya Erdem
 Middle East Technical University
 Türkiye

POSTER SESSION / POSTER SUNUMLARI

- PM-03** **Elektrik Akımı Destekli Sinterleme Yöntemi ile Üretilen TiAl İntermetalik Malzemesinin Karakterizasyonu**
 Characterization of TiAl Intermetallic Materials Produced by Electric Current Activated Sintering
Nuri Ergin, Özkan Özdemir
Sakarya University
Türkiye
- PM-04** **Elektrik Akımı Destekli Sinterleme Yöntemi ile Elde Edilen TiNi Kaplamalar**
 TiNi Coating obtained by Electric Current Assisted Sintering
Nuri Ergin, Özkan Özdemir
Sakarya University
Türkiye
- PM-05** **Alüminyum Parçaların Toz Enjeksiyon Kalıplama Metodu ile Üretilmesi**
 Production of Aluminum Parts by Powder Injection Molding
Levent Acar, H.Özkan Gülsoy
Marmara University
Türkiye
- PM-06** **WC-Co Esaslı Sert Metallerin Toz Enjeksiyon Kalıplanması ve Özelliklerinin İrdelenmesi**
 Powder Injection Molding of WC-Co Hard Metals and Investigation of Their Properties
H.Özkan Gülsoy¹, Halil İ. Bakan¹, Volkan Günay¹, Murat Sert²
¹TÜBİTAK Marmara Research Center, ²Nurol Teknoloji Sanayi A.Ş.
Türkiye
- PM-07** **Effect of Intermediate Annealing Temperature on Repressing Response to the Densification of Prealloyed Cr-Mo Steels**
Amir Kalantari, Maziyar Azadbeh
Sahand University of Technology
Iran
- PM-08** **Elaboration of Iron Powder from Mill Scale**
Omar Benchiheub¹, Said Mechacht¹, Salim Serrai¹, Mohamed Gamel Khalifa²
¹Annaba University, ²Tabbin Institute for Metallurgical
Algeria, Egypt
- PM-09** **The Effects of Nickel Addition Route on Activated Sintering of Tungsten**
Ahmad Ghaderi Hamidi, Hosein Arabi, Saeed Rastegari
Iran University of Science and Technology
Iran

POSTER SESSION / POSTER SUNUMLARI

WELDING METALLURGY / KAYNAK METALURJİSİ

- WM-01** **Hardox 400 Çeliğinin Bindirme ve Dolgu Kaynağında Kaynak Telinin Mikroyapı ve Mekanik Özelliklere Etkisi**
 Microstructure and Mechanical Property Change of Lap and Fillet Welded Hardox 400 Steel
Nuray Beköz, Selim Yıldırım
Istanbul University
Türkiye
- WM-02** **Sanal Kaynak Simülatörü Tasarımı**
 Design of Virtual Welding Simulators
Cemil Öz, Fehim Fındık, Osman İyibilgin, Uğur Soy, Yaşar Kıyan, Soydan Serttaş, Kayhan Ayar, Sadık Uslu, Yalçın Yaşar
Sakarya University
Türkiye
- WM-03** **Farklı Yöntemlerle Kaynaklanmış Ferritik Çeliklerde Mikroyapısal Karakterizasyon ve Mikrosertlik Değişkenliği**
 Microstructural Characterisation of Ferritic Steels Welded by Different Methods and Variation of Microhardness
Şeyda Polat, Hakan Atapek, Onur Birbaşar
Kocaeli University
Türkiye
- WM-04** **A Bimetal Interaction for the Bearings Offshore Drilling Equipments with Seawater Environment**
Tamara Radu Nicu, Anisoara Ciocan, Florentina Potecasu
University Dunarea
Romania
- WM-05** **Studies on the Butt Welding Characteristics of Double Wall PE Pipes**
Bo-Young Lee, Sang-Yul Lee
Korea Aerospace University
South Korea
- WM-06** **Influence of Heat Treatment on Brittle Fracture Welding Cords of Constructional Steels**
M. Zaoui¹, A. Bouchoucha²
¹University Mohammed Boudiaf M'sila, ²Mentouri University
Algeria

POSTER SESSION / POSTER SUNUMLARI

METALLIC MATERIALS / METALİK MALZEMELER

- MM-01** **Bakır Katkısının ve Östemperleme Isıl İşleminin GGG 50 Sınıfı Dökme Demirin Mikroyapısına Etkisi**
 The Effect of Copper Addition and Austempering Heat Treatment on GGG 50 Grade Cast Iron Microstructure
Sebahattin Kırtay, Aliye Arabacı, Berkin Kılınç
Istanbul University
Türkiye
- MM-02** **İntermetalik Alaşımların Yapısal Hatalarının Monte Carlo Yöntemi ile Benzetimi**
 Monte Carlo Modeling of Structural Defects in Intermetallic Alloys
Muratahan Aykol, O. Mekhrabov Amdulla, M. Vedat Akdeniz
Middle East Technical University
Türkiye
- MM-03** **Saf Bakırın Yüksek Sıcaklıktaki Davranışına Deformasyon Hızı ve Sıcaklığın Etkisi**
 The Effect of Deformation Rate and Temperature on the Behavior of Pure Copper at Elevated Temperatures
Selim Yıldırım
Istanbul University
Türkiye
- MM-04** **AA6063 Alüminyum Alaşımında Yaşlandırma Şartlarının Aşınma ve Mekanik Özelliklere Etkisi**
 The Effect of Age Hardening on Mechanical Properties and Wear Resistance of AA6063 Aluminum Alloy
Selim Yıldırım
Istanbul University
Türkiye
- MM-05** **Germanyumun Gümüşün Mikroyapı ve Mekanik Özelliklerine Etkisi**
 Microstructure and Mechanical Properties of Ag-Ge Alloys
Nazlı Akçamlı¹, Enver Oktay²
¹Goldaş Kuyumculuk, ²Istanbul University
Türkiye
- MM-06** **Bakırın Çeliğe Kaynaklanmasında Yüzeydeki Flaks Kalıntılarının Korozyif Etkilerinin İncelenmesi**
 Investigation of the Corrosive Effects of Excess Flux on the Surface while Welding Copper to Steel
Selçuk Harput, Mehmet Ali Akoy, Zeynep Sirel
Sarkuysan Elektrolitik Bakır Sanayii A.Ş.
Türkiye
- MM-07** **Sabit Gerinim Serbest Geri Dönüşüm Koşulları Altında Test Edilen Bir Ti-50Ni Alaşımında Termo-Mekanik İşlemenin Şekil Bellek Özelliklerine Etkisi**
 The Effect of Thermo-Mechanical Processing on the Shape Memory Characteristics of a Ti-50Ni Alloy Tested under Constant Strain Free Recovery Conditions
Fatih Yaşar¹, M.Kaan Pehlivanoğlu², A.Şakir Bor²
¹TUBİTAK SAGE, ²Middle East Technical University
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- MM-08** **Şekil Hafızalı Ni-Ti ve Ti-Nb-Al Alaşımlarının Üretimi**
 Production of Ni-Ti and Ti-Nb-Al Shape Memory Alloys
Elif Zehra Eroğlu, Esra Dokumacı, Bülent Öney
Dokuz Eylül University
Türkiye
- MM-09** **Alaşımsız Düşük Karbonlu Çeliklerde Gerinim-Yaşlandırmanın Darbe Tokluğuna Etkileri**
 Effects of Strain-Aging on Impact Toughness of Non-Alloyed Low Carbon Steels
Koray Yurtışık, Caner Batıgün, Rıza Gürbüz
Middle East Technical University
Türkiye
- MM-10** **Yüksek Krom ve Silisyumlu Çeliğin Aşınma Davranışına Uygulanan Yükün ve Karşı Malzemenin Etkisi**
 Effect of Applied Loads and Counterfaces on the Wear Behaviour of the Steel with High Cr and Si
Hayrettin Ahlatcı¹, Mustafa Bakır², Orkun Tüfenk², Yavuz Sun¹, Görkem Yargül¹
¹Karabük University; ²Aş Çelik Döküm
Türkiye
- MM-11** **Sabit Gerilim Serbest Geri Dönüşüm Koşulları Altında Test Edilen Bir Ti-50Ni Alaşımında Termo-Mekanik İşlemenin Şekil Bellek Özelliklerine Etkisi**
 The Effect of Thermo-Mechanical Processing on the Shape Memory Characteristics of a Ti-50Ni Alloy Tested Under Constant Stress Free Recovery Conditions
Fatih Yaşar¹, M. Kaan Pehlivanoglu¹, A. Şakir Bor²
¹TÜBİTAK SAGE, ²Middle East Technical University
Türkiye
- MM-12** **Linyit Esaslı Termik Santral Kazan Boruları Performans Değerlendirmesi için bir Test Düzenekinin Tasarımı ve Denenmesi**
 A Set-up for Testing of Boiler Tubes in Lignite Based Power Plants
Hüseyin Ergün, Kadri Aydınol, Mustafa Doruk, Tayfur Öztürk
Middle East Technical University
Türkiye
- MM-13** **Temperlenmiş Beynitik Bir Çeliğin Aşınma Davranışı Üzerine Sertlik Etkisi**
 Effect of Hardness on Wear Behaviour of a Tempered Bainitic Steel
Ş.Hakan Atapek, Şeyda Polat
Kocaeli University
Türkiye
- MM-14** **Statistical-Graphical Study of Formation of the Iron Intermetallic Phase in the Solid Iron-Liquid Aluminum Contact at the Early Stage**
Alireza Shahbazi, Hamidreza Shahverdi
Tarbiat Modares University
Iran
- MM-15** **Effect of Deformation Parameters on the Ultrafine Ferrite Formation Through Dynamic Strain-Induced Transformation**
Beitallah Eghbali, Mehdi Shaban
Sahand Technical University
Iran

POSTER SESSION / POSTER SUNUMLARI

- MM-16** **Study of the Failure in Vibrating Sieve Side Plates**
Minoosh Khodadad¹, S.R. Alah Karam², H. Hashemi¹
¹Msc in Metallurgy and Material Science, ²University of Tehran
 Iran
- MM-17** **Simulating the Mechanical Loading State on Side Plates of Vibrating Sieves and Investigating the Causes of Failure**
Minoosh Khodadad¹, Mohamad Habibi Parsa², Saeid Reza Allah Karam², Hatef Hashemi¹
¹Msc in Metallurgy and Material Science, ²University of Tehran
 Iran
- MM-18** **Influence of the Temperature and the Environment on Behavior Plastic Fatigue of an Austenitic Stainless Steel (316L)**
Cherif Belamri, Saida Belhas
 University Hadj Lakhdar of Batna
 Algeria
- MM-19** **The Thermomechanic Treatments Effects Observed on the Relaxation Phenomena of an Aluminium Single Crystal**
Cherif Belamri¹, Saida Belhas¹, Andre Riviere²
¹University Hadj Lakhdar of Batna, ²LMPM-ENSMA-UMR CNRS
 Algeria
- MM-20** **Influence of Manganese and Titanium on Wear Behaviour of High Chromium Cast Iron**
Khedidja Bouhamla¹, Ali Hadji², Hichem Maouche¹
¹Iron and Steel Applied Research Unit, ²Annaba University
 Algeria
- MM-21** **Quantitative Examination of Ductile Fracture Behaviour of a C-Mn-Mo Dual-Phase Steel**
Nafiseh Modghan, Fahimeh Teimoori, Mohammad Mazinani
 Ferdowsi University of Mashad
 Iran
- MM-22** **Shape Memory Effect in Cu-Al-Fe Alloys**
T.N. Raju, Vedamanickam Sampath
 Indian Inst. Of Tech. Madras
 India
- MM-23** **Study of the Thermoviscoplastic Behavior of an Alloy of Titanium of the Type TA6V**
Abderrazek Darsouni¹, Djamel Toulbia^{1,2}, Alexis Ruzinek³, J. Roman Klepaczek², J.A. Rodriguez-Martinez⁴, E. Dossou²
¹University of Annaba, ²University Paul Verlaine, ³National Engineering School of Metz, ⁴University Carlos III of Madrid
 Algeria
- MM-24** **Modeling Static Softening of Microalloyed Austenite**
Bahman Mirzakhani¹, Jilt Sietsma², Mostafa Mansourinejad³
¹Arak University, ²Islamic Azad University, ³Delft University of Technology
 Iran, Netherlands, Australia
- MM-25** **Growth Kinetic of the Intermetallic Compound at Early Stage of Immersion of Solid Iron in Liquid Aluminum**
Alireza Shahbazi, Hamidreza Shahverdi
 Tarbiat Modares University
 Iran

POSTER SESSION / POSTER SUNUMLARI

- MM-26** **Experimental Study on Ductile Fracture in Welded Joints**
 Zaoui Moussa, Menasri Nouredine
 University of M'sila
 Algeria
- MM-27** **The Influence of Aging Time on the Coarsening Kinetics of γ' Precipitate in GTD-111 Ni-Base Superalloys**
 Mohammad Berahmand, Saied Abdolkarim Sajjadi
 Ferdowsi University of Mashhad
 Iran
- MM-28** **The Mutual Effect of Iron and Manganese on Microstructure and Mechanical Properties of Aluminium-Silicon Alloy**
 Mehdi Mazar Atabaki¹, Alireza Darvishi², Ali Maleki², Vahid Aboei Mehrizi³
¹University Technology Malaysia, ²Yazd Shahid Sadoghi University,
³Science and Technology University
 Malaysia, Iran
- MM-29** **Effect of Semi-Solid Forming on the Microstructure and Mechanical Properties of the Iron Containing Al-Si Alloys**
 S.G. Shabestari, E. Parshizfard, F. Sahihi
 Iran University of Science and Technology
 Iran
- MM-30** **Cyclic Oxidation of Fe-Si-Cr And Fe-Mn-Si-Cr-Ni Alloys**
 A. M. S. Malafaia¹, M. T. Milan², R. M. M. Riofano², O. Maluf^{1,2}, M. F. De Oliveira¹
¹University of Sao Pulo, ²Materials Institute of Brazil
 Brazil

NON-FERROUS METALLURGY / DEMİR DIŞI METALLER METALURJİSİ

- NF-01** **Selestit'in Amonyum Karbonat/Bikarbonat İçeren Amonyaklı Çözeltilerde SrCO_3 'a Dönüştürülmesi**
 The Conversion of Celestite to SrCO_3 in Ammoniacal Solution Containing Ammonium Carbonate/Bicarbonate
 Mert Zorağa, Cem Kahraman
 Istanbul University
 Türkiye
- NF-02** **Kalsiyum Volframatin Okzalik Asit Çözeltilerinde Çözünme Davranışı**
 Dissolution Behaviour of Calcium Tungstate in Oxalic Acid Solutions
 Ahmet Orkun Kalpaklı, Sedat İlhan, Cem Kahraman, İbrahim Yusufoglu
 Istanbul University
 Türkiye
- NF-03** **Şelit Mineralinde Bulunan Povellit in Okzalik Asitli Çözeltilerde Çözünme Davranışı**
 Dissolution Behaviour of Powellite Associated with Scheelite in Oxalic Acid Solutions
 Sedat İlhan, Ahmet Orkun Kalpaklı, Cem Kahraman, İbrahim Yusufoglu
 Istanbul University
 Türkiye

POSTER SESSION / POSTER SUNUMLARI

- NF-04** **Şelit Mineralindeki Safsızlık Elementlerin Okzalik Asitli Çözeltilerde Çözünme Davranışları**
Dissolution Behaviour of Impurities in Scheelite in Mineral Oxalic Acid Solutions
Ahmet Orkun Kalpaklı, Sedat İlhan, Cem Kahruman, İbrahim Yusufoğlu
Istanbul University
Türkiye
- NF-05** **Gözenekli Silisyum Dioksit Peletlerin Elektroleksidasyon Yöntemi ile Erimiş Tuz İçinde İndirgenmesine Yönelik Çalışmalar**
Investigation of Reduction of Porous Silica Pellets by Electro-deoxidation in Molten Salts
Emre Ergül, İshak Karakaya, Metehan Erdoğan
Middle East Technical University
Türkiye
- NF-06** **Piritik Refrakter Altın Cevherlerinin Ateş Analizi Optimizasyonu**
The Fire Assay Optimization of Pyritic Refractory Gold Ores
Ahmet Turan, Onuralp Yücel
Istanbul Technical University
Türkiye
- NF-07** **Oksitli Bakır Cevherlerinin Çözümlemlenmesi**
Dissolution Kinetics of Oxide Copper Ores
Can Akkaş, M.Şeref Sönmez, Onuralp Yücel
Istanbul Technical University
Türkiye
- NF-08** **Elektroliz Parametrelerinin Cu-Zn Alaşım Tozlarının Görünür Yoğunluğu ve Mikroyapısı Üzerine Etkisi**
The Effect of Electrolysis Parameters on the Apparent Density and on the Morphology of Cu-Zn Alloy Powder
Gökçe Hapçı, Gökhan Orhan
Istanbul University
Türkiye
- NF-09** **Li-iyon Pilleri için Cu-Sn Anotların Elektrokimyasal Yöntemle Üretimi**
Production of Cu-Sn Anodes for Lithium-ion Batteries by Electrochemical Method
Gizem Güzey Gezgın, Gökhan Orhan
Istanbul University
Türkiye
- NF-10** **Altın Cevherlerinin Ateş Analizlerinde Kullanılan Curuflaştırıcıların Etkilerinin İncelenmesi**
Investigation of Effects of Flux Materials which are used on the Fire Assay of Gold Ores
Haluk Başaran, Ahmet Turan, Onuralp Yücel
Istanbul Technical University
Türkiye
- NF-11** **The Electrochemical Behavior of Iron in Copper Electrowining Electrolyte**
Elham Mohimi, Hossein Yoozbashzade
Sharif University of Technology
Iran

POSTER SESSION / POSTER SUNUMLARI

NF-12 The Effect of Mechanical Activation on Calciothermic Reduction of Titanium Dioxide

Mohammad Reza Aboutalebi, S. Khani, S.H. Seyedein
Iran University of Science and Technology
Iran

RECOVERY AND ENVIRONMENTAL PRECAUTIONS IN METALLURGY / GERİ KAZANIM VE METALURJİDE ÇEVRE KORUYUCU ÖNLEMLER

REM-01 Eski Asfalt Kaplamaların Geri Dönüştürülmesi ve Bitümlü Sıcak Karışımlarda Yeniden Kullanımı

Recycling and Reuse of Old Asphalt Coatings in Hot Bituminous Mixtures
İbrahim Sönmez¹, Esin Günay², Aydın Topçu¹, Mustafa Kara², Seyit Ali Yıldırım¹,
Bayise Kavaklı²
¹İSFALT A.Ş., ²TÜBİTAK Marmara Research Center
Türkiye

REM-02 Valorization of Plastics Bag Wastes in the Mortar and the Study of Temperature Effect

Ghernouti Youcef, Bahia Rabehi
University of Mascara
Algeria

IRON AND STEEL METALLURGY DEMİR-ÇELİK METALURJİSİ

IS-01 Kromitin Karbotermal Redüksiyonuna Mekanik Aktivasyonun Etkisi Effect of Mechanical Activation on Carbothermal Reduction of Chromite

Fatih Apaydın¹, Ahmet Atasoy², Kenan Yıldız²
¹Bartın University, ²Sakarya University
Türkiye

IS-02 İsdemir'de Endüstriyel Suyun Yönetilmesi The Management of Industrial Water in İsdemir

Bülent Demirel
İSDEMİR Iskenderun Iron & Steel Integrated Plant
Türkiye

IS-03 Metalotermik Yöntemle Ferromolibden Üretimindeki Parametrelerin Optimizasyonu

Optimization of Parameters of Ferromolybdenum Production via Metalothermic Reduction Process
Güvenç Güven, Murat Alkan, Bora Derin, Onuralp Yücel
İstanbul Technical University
Türkiye

IS-04 Torpidolarda Kullanılan Refrakter Malzemesinin Ömrünün Artırılması İçin Yapılan Shotcrete Çalışmaları

Application of Shotcrete Method to Improve the Service Life of Refractory
Bora Balcı, Kamil Eken
İSDEMİR Iskenderun Iron & Steel Integrated Plant
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- IS-05** **Effect of Temperature Dependent Heat Capacity of Solid Additive-Bath System upon Instant Interface Temperature at the Time of Dunking of the Additive in the Bath**
Rajendra Prasad Singh, Anant Prasad
National Institute of Technology
India
- IS-06** **Thermodynamic Behaviors of Selenium in Liquid Iron**
Seon-Hyo Kim¹, Chang-Woo Seo¹, Sung-Koo Jo², Bo Song³, Ho-Sun Hwang⁴
¹POSTECH, ²Research Institute of Industrial Science&Technology,
³University of Science and Technology in Beijing, ⁴POSCO Specialty Steel
South Korea, China
- IS-07** **Mathematical Modeling for Developing Iron Bath Reactor with H₂-C Mixture Reduction**
Bo Zhang, Huai-Wei Zhang, Jia-Jun Mao, Jie Guo, Qiu-Ju Li, Jie-Nan Liu, Xin Hong
Shanghai University
China

HEAT TREATMENT / ISIL İŞLEM

- HT-01** **AA 6063 Alüminyum Alaşımının Yaşlanma Davranışı**
Aging Behaviour of AA 6063 Aluminum Alloy
Sebahattin Kırtay, Aytaç Bahtiyar
Istanbul University
Türkiye
- HT-02** **Östempereleme Sıcaklığının Arakritik Östenitleme Sıcaklıklarından Östemperelemiş Küresel Grafitli Dökme Demirin Mikroyapı ve Yorulma Dayanımı Üzerine Etkisi**
The Influence of the Austempering Temperatures on the Microstructure and the Fatigue Strength of the Austempered Ductile Iron Austenitized from Intercritical Austenitizing Temperatures
İsmail Ovalı¹, Volkan Kılıçlı², Mehmet Erdoğan²
¹Hacettepe University, ²Gazi University
Türkiye
- HT-03** **Effect of Austempering Temperature and Depth of Cut on the Machining Behavior of Austempered Ductile Iron**
Behzad Avishan, Sasan Yazdani
Sahand Technical University
Iran
- HT-04** **Anisotropic Transformation Strain and Its Consequences in Coupling of Prior Forming Operations with Heat Treatment Simulation**
Caner Şimşir, Thomas Lübken, Brigitte Clausen, Franz Hoffmann, Hans-Werner Zoch
Foundation Institute of Materials Science
Germany
- HT-05** **The Influence of Geometrical Conditions on Rewetting Behaviour of Cylindrical Components**
Frerichs Friedhelm, Thomas Lübken, Franz Hoffman, Hans-Werner Zoch
IWT Bremen
Germany

POSTER SESSION / POSTER SUNUMLARI

- HT-06** **Analysis of Soaking Treatments in 5383 Type Al-Mg Alloy Ingots**
Tamara Radetic¹, Miljana Popovic¹, Endre L. Romhanji¹, Branislava Milovic², Radomir Dodok²
¹University of Belgrade, ²Impol-Seval Aluminum Rolling Mill
 Serbia
- HT-07** **Temperature Dependence of the Quenching Properties of Vegetable Oils Compared to Petroleum Oil Quenchants**
Ester Carvalho de Souza¹, Carlos Alberto Bronzini², Analia Gaston^{3,4}, Loralice de Campos Franceschini Canale¹, Gustavo Sanchez Sarmiento^{4,5}, George E. Totten⁶
¹Sao Paulo University, ²Universidad Austral, ³Universidad Nacional de Rosario, ⁴Universidad del Salvador, ⁵Universidad de Buenos Aires, ⁶Portland State University
 Brazil, Argentina, USA
- HT-08** **Vegetable Oil Based Quenchants: Effect of Antioxidants on Oxidative Stability and Initial Quenching Performance of Soybean Oil and Palm Oil**
Gabriela Belinato¹, Loralice de Campos Franceschini Canale¹, George E. Totten²
¹Universidade de Sao Paulo, ²Portland State University
 Brazil, USA
- HT-09** **Gas Carburizing of Introducing Hydrocarbon Gas Directly in Furnace**
Hiroaki Fujii¹, Masahiro Okumiya¹, Yoshiki Tsunekawa¹, Yusuke Kawagoe²
 Toyota Technological Institute¹, Toho Gas Co., Ltd²
 Japan
- HT-10** **Surface Modification of Steel with High-Frequency Induction Carburizing in Methanol**
Yudai Ogawa, Masahiro Okumiya, Yoshiki Tsunekawa
 Toyota Technological Institute
 Japan
- HT-11** **Investigating the Distortion of the Gas-Quenched Steel Samples by Dimensional Analysis**
Betül Pelin Maradit¹, Caner Şimşir², Thomas Lübken², C. Hakan Gür¹
¹Middle East Technical University, ²Stiftung Institut für Werkstofftechnik
 Germany, Türkiye
- HT-12** **Mathematical Model of Heat Transfer During Convective Quenching of Cylindrical Probes**
B. Hernandez-Morales¹, H.J. Vergara- Hernandez², G. Solorio Diaz³
¹Depto.de Ingenieria Metalurgica Universidad Nacional Autonoma de, ²Posgrado de Ciencias en Metalurgia, Instituto Tecnologico de Morelia, ³Facultad de Ingenieria Mecanica
 Mexico
- HT-13** **Failure Detection by Means of Sound Emission During Steel Quenching**
Franc Ravnik, Janez Grum
 University of Ljubljana
 Slovenia

POSTER SESSION / POSTER SUNUMLARI

SURFACE TREATMENT / YÜZEY İŞLEMLERİ

- ST-01** **Sol Jel Yöntemiyle SiO₂ Kaplanan Çeliğin Korozyon Davranışı**
Corrosion Resistant Behavior of SiO₂ Coated Steel by Sol Gel Technique
Sebahattin Kırtay, Aliye Arabacı, Cem Kahruman
Istanbul University
Türkiye
- ST-02** **CP-Ti Üzerine Dupleks Kaplanmış TiN/TiO₂ Tabakanın Aşınma Davranışı**
Wear Properties of TiN / TiO₂ Duplex Treated CP-Ti
Yenal Vangölü, Özgü Bayrak, Akgün Alsaran, Ayhan Çelik
Atatürk University
Türkiye
- ST-03** **Y₂SiO₅ Tozunun Üretimi ve Plazma Sprey Kaplama Tekniği ile Kaplanması**
Production of Y₂SiO₅ Powder and Coating with Plasma Spray Technique
Salih Emre Yıldırım, Fatih Üstel, Nil Toplan
Sakarya University
Türkiye
- ST-04** **Elektrolitik Yöntemle Seramik Nano Partiküllü Krom Metal Matrisli Kompozit Kaplamaların Üretilmesi, Karakterizasyonu ve Mikromekanik Özelliklerinin Belirlenmesi**
Production, Characterization and Investigation of Micro-Mechanical Properties of Ceramic Nano Powder Reinforced Chromium Matrix Composite Coatings via Electrolytic Method
Orkut Sancakoğlu, Mustafa Erol, Bahattin Ağaday, Erdal Çelik
Dokuz Eylül University
Türkiye
- ST-05** **Plazma Sprey Yöntemi ile Y-Psz Kaplanmış Alüminyum Alaşımının Aşınma Özellikleri**
Wear Properties of Plasma Sprayed Y-Psz Coated Aluminum Alloy
Eray Erzi, Selim Yıldırım, Suat Yılmaz
Istanbul University
Türkiye
- ST-06** **Etial-195 Döküm Alaşımının Sürtünme Karıştırma Yöntemiyle (SKY) Yüzey Modifikasyonu**
Surface Modification of Etial-195 Cast Aluminum Alloy by Friction Stir Processing (FSP)
Narin Ünal, Hasan Erdem Çamurlu
Akdeniz University
Türkiye
- ST-07** **Silisyum Karbür İnce Filmlerin Reaktif Doğru Akım Manyetik Alanda Sıçratma Yöntemiyle Üretimi ve Karakterizasyonu**
Production and Characterization of Silicon Carbide Thin Films Deposited by Reactive DC Magnetron Sputtering
Erdem Başkurt, Tolga Tavşanoğlu, Onuralp Yücel
Istanbul Technical University
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- ST-08** **Elektrik Ark Püskürtme Yöntemi ile Korozyon Koruyucu Zn ve Zn/15Al Kaplamaların Optimum Şartlarda Üretilmesi ve Karakterizasyonu**
 Zn and Zn/15Al Protective Coatings against Corrosion Were Produced in Optimum Conditions by Twin Wire Arc Spray Technique and Characterization
Ahmet Güleç¹, Ahmet Türk², Fatih Üstel², Fevzi Yılmaz³
¹ISKI, ²Sakarya University, ³Istanbul Arel University
 Türkiye
- ST-09** **Nb-Cr-Ti Üçlü Alaşımların Üretimi ve Oksitlenmesi**
 Production and Oxidation of Nb-Cr-Ti Ternary Alloys
Esra Dokumacı, Elif Eroğlu, Bülent Öney
 Dokuz Eylül University
 Türkiye
- ST-10** **Elektroliz Yöntemi ile Üretilen Ni-SiC Kompozit Kaplamaların Korozyon Davranışı**
 Corrosion Behavior of Electrodeposited Ni-SiC Composite Coatings
Serkan Özkan, Gökçe Hapçı, Gökhan Orhan
 Istanbul University
 Türkiye
- ST-11** **Mikro Ark Oksidasyon İşleminde Farklı Çözelti Bileşimlerinin 6060 Kalite Alüminyum Alaşımının Morfolojik Özelliklerine ve Korozyon Direncine Etkisi**
 The Effect of Different Solution Constant in the Micro ARC Oxidation Process on the Morphological Properties and Corrosion Resistance of 6060 Aluminum Alloy
Aysun Ayday, D. Alexander Becerik, L. Cenk Kumruoğlu, Ahmet Özel
 Sakarya University
 Türkiye
- ST-12** **Mikro Ark Oksidasyon Yöntemiyle 6060 Alüminyum Alaşımının Yüzey Özelliklerinin Geliştirilmesi**
 The Surface Properties of 6060 Aluminium Alloy Improved by Micro Arc Oxidation Process
Aysun Ayday, L. Cenk Kumruoğlu, Ahmet Özel, S. Can Kurnaz, Mehmet Durman
 Sakarya University
 Türkiye
- ST-13** **Sıcak Daldırma ile Galvanizlemede Alınabilecek Konstrüktif Tedbirler**
 Constructive Expedients in Galvanization with Hot Dipping Methods
Yüksek Bilir
 İSDEMİR Iskenderun Iron & Steel Integrated Plant
 Türkiye
- ST-14** **SiC Katkılı Bazalt Esaslı Kaplamaların Yapısal Özellikleri**
 Structural Properties of SiC Reinforced Basalt Based Coatings
Ediz Ercenk, Günhan Bayrak, Uğur Şen, Şenol Yılmaz
 Sakarya University
 Türkiye
- ST-15** **Alkali Akımsız Kaplama Yöntemi ile Al₂O₃ Seramik Partiküllerinin Nanoyapılı Nikel Kaplanması**
 Nano-structured Ni Deposition on Al₂O₃ Particles by Basic Electroless Coating
Mehmet Uysal, Ramazan Karslıoğlu, Ahmet Alp, Hatem Akbulut
 Sakarya University
 Türkiye

POSTER SESSION / POSTER SUNUMLARI

- ST-16** **Yeniden Çözeltiliye Alma Sıcaklığının 7075 Alüminyum Alaşımlarının Aşınma Davranışına Etkisi**
The Effect of Retrogression and Reaging (RRA) Heat Treatments Temperature on Wear Behaviour of 7075 Aluminium Alloys
Ramazan Yılmaz¹, Dursun Özyürek², Erkan Kibar¹
¹Sakarya University, ²Karabük University
Türkiye
- ST-17** **Fe-Mn-C-Si Sert Yüzey Alaşımlarının Aşınma Özellikleri**
The Wear Properties of Fe-Mn-C-Si Hardfacing Alloys
Ramazan Yılmaz
Sakarya University
Türkiye
- ST-18** **NiCr İnce Filmlerin Yapısal ve Elektriksel Özelliklerine Farklı Altlıkların Etkisi**
Effect of Different Substrates on Mechanical and Electrical Properties of NiCr Thin Films
Murat Danışman, Nurhan Cansever
Yıldız Technical University
Türkiye
- ST-19** **Study of Zinc Coatings on Steel Substrate Attained by Different Elements Added**
Tamara Radu Nicu, Maria Vlad, Florentina Potecasu, Lucica Balint
University Dunarea
Romania
- ST-20** **Enhancement of the Abrasive Wear Resistance of Gray Cast Irons by Ferritic Nitrocarburising Process**
Mohamed Zine Touhami¹, S. Tilili¹, A.Khettache², Y.Khelfaoui³, Ali Hadji⁴
¹University of Annaba, ²Laboratory of Physical Metallurgy and Properties of Materials, ³University of Bejaia, ⁴Laboratory of Foundry
Algeria
- ST-21** **The Effect of Shot Peening Operation on Fatigue Behavior of an Alloyed Austempered Ductile Iron**
Sasan Yazdani, Amir Behzad Sadighzadeh, Behzad Avishan
Sahand Technical University
Iran
- ST-22** **Obtaining and Characterization of Phosphated Lubricant Layers on Iron Objects**
Costica Bejinariu¹, Andrei Victor Sandu¹, Leandru Gheorghe Bujoreanu¹, Lulian Ionita¹, Ion Sandu²
¹University of Iasi, ²Al. I. Cuza University
Romania
- ST-23** **Bonding Mechanism of Aluminum Clad Steel Strip**
Mehdi Soltan Ali Nezhad, Ali Haerian Ardakani
Ferdowsi University of Mashhad
Iran

POSTER SESSION / POSTER SUNUMLARI

CASTING / DÖKÜM

- C-01** **Savurma (Santrifüj) ve Kuma Döküm Yöntemi ile Üretilmiş Düktil Demir Boru ve Fittinglerde Mekanik Özellikler**
 Mechanical Properties Ductile Iron Pipes and Fittings Produced by Centrifugal and Sand Casting
Fevzi Yılmaz¹, Mustafa Bayraktar²
¹Istanbul Arel University, ²Istanbul Su ve Kanalizasyon İdaresi
 Türkiye
- C-02** **Döküm Simülasyon Programıyla Dökme Demir Dökümlerinde Besleyici Tasarımı Uygulamaları**
 Computer Aided Simulation of Feeder Design in Cast Iron Casting
Ramazan Kayıkcı, Murat Çolak
 Sakarya University
 Türkiye
- C-03** **Sıvı Katı Arayüzey Bağlanmalı Bi-Metal Kompozit Malzeme Üretimi Üzerine Deneysel ve Simülasyon Çalışması**
 An Experimental and Simulation Study on Bimetal Composite Material Interface by Liquid-Solid Bonding
Levent Cenk Kumruoğlu, Soner Özden Ertürk, Ahmet Özel
 Sakarya University
 Türkiye
- C-04** **Çelik Dökümde Dendritlerarası Sıvı Akımı için Süzülme Eşiği Değerinin Belirlenmesi ve Çekinti Oluşumunun İncelenmesi**
 Determination of Percolation Threshold for Interdendritic Liquid Metal Flow and Investigation of Shrinkage Formation in Steel Castings
Soner Özden Ertürk, Cem Aydın, Emin Yıldız, L.Cenk Kumruoğlu, Ahmet Özel
 Sakarya University
 Türkiye
- C-05** **Comparison of Feedability of Ti and B Grain Refined A356**
Derya Dispinar¹, Arne Nordmark¹, Jorun Voje², Lars Arnberg³
¹SINTEF Materials and Chemistry, ²Alcoa Aluminium, ³NTNU
 Norway

CERAMICS, GLASSES, REFRACTORIES / SERAMİK, CAM, REFRAKTER MALZEMELER

- CGR-01** **Alüminyum Titanat / Forsterit Seramiklerin Mikro Yapısal ve Fiziksel Karakterizasyonu**
 Microstructural and Physical Characterization of Aluminum Titanate/ Forsterite Ceramics
İsrafil Küçük¹, Hasan Gökçe², Tahsin Boyraz¹, M. Lütfi Öveçoğlu²
¹Cumhuriyet University, ²Istanbul Technical University
 Türkiye

POSTER SESSION / POSTER SUNUMLARI

- CGR-02** **Çinko Oksitin Elektriksel İletkenliğine Molce % 0.3 Al_2O_3 Katkısının Etkisi**
 The Effects of 0.3 Mol % Al_2O_3 Addition on the Electrical Conductivity of Zinc Oxide
Berat Yüksel
Istanbul University
Türkiye
- CGR-03** **TeO_2 -CdO Camlarının Termal ve Mikroyapısal Karakterizasyonu**
 Thermal and Microstructural Characterization of TeO_2 -CdO Glasses
Günkut Karaduman, Ali Erçin Ersundu, Nuri Solak, Süheyla Aydın
Istanbul Technical University
Türkiye
- CGR-04** **B_2O_3 Katkılı Tellürit Camların Termal ve Yapısal Karakterizasyonu**
 Thermal and Microstructural Characterization of B_2O_3 Containing Tellurite Glasses
Duygu Yardımcı, Ali Erçin Ersundu, Nuri Solak, Süheyla Aydın
Istanbul Technical University
Türkiye
- CGR-05** **Sol-Jel Üretim Süreçleriyle İndiyum Kalay Oksit Cam Üstü İnce Filmlerin Oluşturulması**
 Sol-Gel Processing of Indium Tin Oxide (ITO) Thin Films on Glass
Caner Durucan, Hakan Yavaş, M. Tümerkan Kesim
Middle East Technical University
Türkiye
- CGR-06** **Nano Boyuttaki Al_2O_3 Seramiklerinin Spark Plazma Sinterleme Yöntemi ile Üretimi**
 Production of Nano Dimension Al_2O_3 Ceramics by Spark Plasma Sintering Method
Burcu Apak, Gültekin Göller, Onuralp Yücel, Filiz Çınar Şahin
Istanbul Technical University
Türkiye
- CGR-07** **Karbon Nanotüp Takviyeli Alümina Seramiklerin Ekstrüzyonu ve Karakterizasyonu**
 Extrusion and Characterisation of Carbon Nanotube Reinforced Alumina Ceramics
Kemal Dönertaş, Zeynep Taşlıçukur, Nilgün Kuşkonmaz, Cengiz Kaya
Yıldız Technical University
Türkiye
- CGR-08** **Mekanik Aktivasyonun Kaolen Seramik Sistemindeki Mullit Oluşumuna Etkisi**
 The Effect of Mechanical Activation on the Formation of Mullite in Kaolin Ceramics System
Hüseyin Özkan Toplan, Seval Koç, Kenan Yıldız, Nil Toplan
Sakarya University
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- CGR-09** **AION Seramiklerin Spark Plazma Sinterlenmesi**
 Spark Plasma Sintering of AION Ceramics
Esra Halide Kanbur, Burcu Apak, Filiz Çınar Şahin
Yıldız Technical University
Türkiye
- CGR-10** **Tandişlerde Kullanılan Prefabrik Şekli Refrakter Malzemelerin Olivin İlaveli Magnezya Esaslı Hammaddeler ile Karakterizasyonu ve Üretimi**
 Characterization and Production of Prefabricated Shaped Refractory Materials for Tundish Based on Olivine Added Magnesia Raw Materials
Özgür Kadir Birben¹, Çağatay Durmuş¹, Cengiz Hamzaçebi², Hasan Gökçe², Serdar Özgen², M. Lütfi Öveçoğlu²
¹Metamin Mümessillik, ²Istanbul Technical University
Türkiye
- CGR-11** **Perlit Tozlarının Sinterlenme Davranışları**
 The Sintering Behaviors of Perlite Powders
Ediz Ercenk¹, Anıl Şahin¹, Şenol Yılmaz¹, Volkan Günay²
¹Sakarya University, ²TÜBİTAK Marmara Research Center
Türkiye
- CGR-12** **Si₃N₄ ile Bağlanan SiC (Sn-SiC) Üretim Parametreleri ve Özellikleri**
 Properties and Production Parameters of Si₃N₄ Binded SiC (SN-SiC)
Yasemin Demirci¹, Ümit Yurdakul², Murat Sert², Volkan Günay¹
¹TÜBİTAK Marmara Research Center, ²Nurol Teknoloji A.Ş.
Türkiye
- CGR-13** **Sır Oluşumu ve Gelişiminin Isıl Mikroskop ile İncelenmesi**
 Investigation of Glaze Formation and Development by using Heating Microscope
Yasemin Demirci, Volkan Günay
TÜBİTAK Marmara Research Center
Türkiye
- CGR-14** **Yanma Sentezi Yöntemi ile Üretilen Fe-Katkılı Alüminada Mikroyapı Gelişimi**
 Microstructure Evolution in Fe-Doped Alumina Prepared via Combustion Synthesis
Yasemin Çelik, Ender Suvacı
Anadolu University
Türkiye
- CGR-15** **Alkali Niyobat Piezoseramiklerin Yüzey ve Kolloid Kimyası**
 Surface and Colloid Chemistry of Alkaline Niobate Piezoceramics
Özcan Özmen, Ender Suvacı
Anadolu University
Türkiye
- CGR-16** **Şekil ve Boyut Kontrollü Titanyum Dioksit Partiküllerinin Sentezi**
 Shape and Size Controlled Synthesis of Titanium Dioxide Particles
Güneş Alp Yakaboylu, Ender Suvacı
Anadolu University
Türkiye

POSTER SESSION / POSTER SUNUMLARI

- CGR-17** Diopsit Esaslı Duvar Karosu Cam Seramik Sırlarda Na_2O , K_2O ve B_2O_3 'in Sırın Kristalizasyon Davranışı ve Mikroyapı Üzerindeki Etkileri
Effects of Na_2O , K_2O and B_2O_3 on Crystallization Behavior and Microstructure of Diopside Based Tile Glass Ceramic Glazes
Betül Yıldız^{1,2}, Ender Suvacı¹
¹Anadolu University, ²Yurtbay Seramik Sanayi A.Ş.
Türkiye
- CGR-18** MgO-Spinel Kompozit Refrakterlerin Korozyon Davranışında SnO_2 İlavesinin Etkilerinin İncelenmesi
Examination of the Influences of SnO_2 Addition on Corrosion Behaviour of MgO-Spinel Composite Refractories
Cemal Aksel, Pınar Uğur
Anadolu University
Türkiye
- CGR-19** LTCC Uygulamaları için Cam/ Al_2O_3 Kompozitlerin Sinterlenme Özellikleri
Sintering Properties of Glass/ Al_2O_3 Composite for Low Temperature Co-Fired Ceramic (LTCC)
Ayşen Kılıç^{1,2}, Okan Addemir², Volkan Günay¹
¹TÜBİTAK Marmara Research Center, ²Istanbul Technical University
Türkiye
- CGR-20** Çeşitli Antioksidan Katkılarının MgO-C Tuğla Özelliklerine Etkileri
Effects of Various Antioxidant Addition on the Properties of MgO-C Brick
Ziya Aslanoğlu, Çetin Bağlan
Süperateş Ateşe Mukavim Malzeme Sanayi A.Ş.
Türkiye
- CGR-21** Seramik Termostat İzolatörlerin Üretimi ve Karakterizasyonu
Production and the Characterisation of Ceramic Thermostat Insulators
Çağlar Altun, M.Ercan Açma, M.Şeref Sönmez
Istanbul Technical University
Türkiye
- CGR-22** Effect of Iron Oxide on Microstructure and Sintering Behavior of Mag-Dol Refractories
Mitra Zeraati Jorshari¹, Hossein Sarpoulaki¹, Mohammad Bavand¹, Kourosh Bagheri², Ali Panahi²
¹Iran University of Science and Technology, ²Iranian Refractories Procurement and Production Co.
Iran
- CGR-23** The Effect of Iron Oxide Addition on the Properties and Microstructure of Magnesia-Dolomite Refractories
Fatemeh Kashani Nia¹, Hossein Sarpoolaky¹, Rahim Naghizadeh¹, Kourosh Bagheri², Mehrzad Zamanipour²
¹Iran University of Science and Technology, ²Iranian Refractories Procurement and Production Co.
Iran
- CGR-24** Chemical and Physical Characterisation of Cementitious Mixes of Heat-Treated Clay and Lime
Yasmine Mleza, Mohamed Hajjaji
Ayyad University
Morocco

Hamid Reza Rezaie, Zahra Mahmoudi, Hossein Ghasaii
Iran University of Science and Technology
Iran

Abdelmalek Mebarek, Abdenacer Lemmoui, Mustapha Beccouche
University Badji Mokhtar-Annaba
Algeria

Bahia Rabehi¹, Khaled Boumchdda¹, Ghernouti Youcef²
¹University of Boumerdes, ²University of Mascara
 Algeria

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