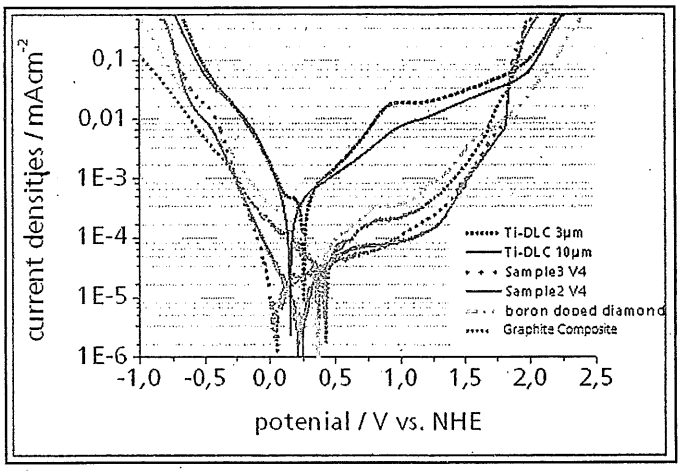

Figure 1. Potentiodynamic measurements of a-C:H:Ti coatings compared to PP-C-CNT samples and reference materials on 1.4301; dU/dt = 5 mV/s, |imax| = 500 $\mu A/cm^2$

Ref no: 191 **Abstract:** 0729

Session 07: *Composite materials*

ISOTHERMAL DEGRADATION KINETICS OF POLY(HYDROXYBUTYRATE) AND POLY(HYDROXYBUTYRATE-CO-HYDROXYVALERATE) NANOCOMPOSITE FILMS

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Introduction: The progressive diminishing of fossil resources, coupled with increasing public awareness for environmentally friendly plastics, has increased academic and industrial interests in biodegradable polymers made from renewable sources. As an alternative to conventional non-degradable food packaging plastics, in this study, bionanocomposites, based on bacterial biodegradable thermoplastic polyesters, poly(hydroxybuthyrate) (PHB) and poly(hydroxybutyrate-covalerate) (PHBHV) incorporated with commercial organo-modified montmorillonite (OMMT) were prepared by melt extrusion method. An appropriate understanding of the thermal decomposition of a particular polymer is an important stage in thermal stabilization of that polymer. One of the important drawbacks of bacterial PHB and PHBHV is thermal unstability during melt processing because thermal degradation temperature is very close to melting temperature. In this manner, effect of OMMT addition on thermal degradation of prepared nanocomposites was investigated. Thermal stability was studied by both DSC and TGA techniques. The kinetics of thermal degradation of nanocomposites was also evaluated by using Avrami-Eroffev model.

Materials and Method: PHB and PHBHV (Good Fellow) nanocomposite films were prepared by melt intercalation method. Polymer and clay were compounded by means of Haake Rheomixer 600 (Thermofisher).

Results and Discussion: XRD analysis helps to quantify the structure of layered silicates in polymer matrix. XRD results of nanocomposites showed that at lower OMMT concentration (1%w/w), exfoliated structure was obtained. However, at higher clay loading (3%w/w) the characteristic peak of OMMT shifted to lower angles and broadened which was attributed to intercalated structure of silicate layers in polymer matrix.

Nanocomposites were investigated via isothermal degradation processes at 230 °C, 240 °C, and 250 °C. The aim of the kinetic analysis is to determine the of kinetic triplets for the investigated process, kinetic model, g(α), activation energy, E, and preexponential factor A given in Eqns 1 and 2.

$[-\ln(1-a)]^{(1/m)}=kt$ (1)

$\ln t = 1/m \ln[-\ln(1-a)]-\ln k$ (2)

Rate constants "k" values of nanocomposites and their dependence on OMMT content and temperature were evaluated. The results showed that addition of OMMT into polymer matrix decreased the "k" values. The most pronounced effect was observed in 3%w/w loaded samples. When the activation energies E, of nanocomposites considered, 3%w/w OMMT addition increased E value of pristine PHB from 60.38 kj mol-1 to 110 kj mol-1. The onset decomposition temperature of pristine PHB film increased about 11oC by addition 2%w/w OMMT. In addition, 50% weight loss temperature increased from 260 °C to 268.15 °C. Therefore, it can be concluded that small addition of OMMT to pristine PHB and PHBHV polymer matrix improved thermal properties significantly.

Ref no: 192 **Abstract:** 0768

Session 07: *Composite materials*

INJECTION PARAMETERS OPTIMIZATION FOR IMPACT PROPERTIES OF CALSIUM CARBONATE FILLED POLYPROPYLENE HOMOPOLYMER COMPOSITE MATERIAL BY EXPERIMENTAL DESING

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In this experimental design study, Charpy impact strength optimization of the calcium carbonate (CC) filled polypropylene homopolymer (PPH) composite material, depending on the injection parameters studied. Small or big, kitchen or bathroom, electrical or electronical household appliances and in computer equipment and technologies are also made of polypropylene (PP) is a raw material widely used. Apply pressing force is much larger than the shape of the mold cavity injection molding method, a result of cooling used in the production of semi-finished and finished products. Charge / volume / performance ratio is much better than other conventional thermoplastic materials. However, the cost and / or rigidity and thermal performance, etc. due to reasons such as talc, calcium carbonate, micro-particle-filled and glass fiber reinforced polypropylene homopolymer (PPH) composite raw materials in manufacturing semi-finished and finished products are more preferred. Polypropylene (PP) material, the mechanical properties of many studies indicating that the effect of CC is the amount of filler. Also PP / CC composite mechanical properties of the material is available in different studies examining the effect of injection parameters. These studies also compared with a single-axis and short-term production test specimens after testing are applied. In this respect, the experimental design (Taguchi) method, production hours, day light (daylight) are not stored in conditions of comfort PPH / CC composite material

object of study is the optimization of the injection parameters on the Charpy impact strength. To examine the effect of injection parameters, the injection pressure, the melt and the mold (cooling water) temperatures impose conditions were used. The PPH raw material, was filled with CC at different percentage rates (20, 30 and 40) by weight with a twin-screw extrusion machine by constant extrusion parameters. The samples was produced according to Taguchi method of experimental design by injection molding of different injection parameters. Samples were stored at comfort conditions without daylight for at least 12 months. The instrumented Charpy impact tests were performed according to ISO 179-2 standard. Experimental results showed that the conditions imposed, have effects on Charpy impact strength of PPH/CC composite materials. In the 20% CC filled PPH/CC composite material, at 10°C mold temperature, 200°C nozzle temperature and 165 bar injection pressure parameters, the largest Charpy impact strength value were obtained. In the 40% CC filled PPH/CC composite material, at 50°C mold temperature, 230oC nozzle temperature and 165 bar injection pressure parameters, the largest Charpy impact strength values were obtained. In the 30% CC filled PPH/CC composite material of the conditions imposed by the effects of Charpy impact strength was observed.

Ref no: 193 **Abstract:** 0769

Session 07: *Composite materials*

PROCESSING OF CO-CONTINUOUS B4C-AL COMPOSITES

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[2]Anadolu University, Department of Materials Science and Engineering, Eskisehir / TURKEY

In this study, co-continuous B4C-Al ceramic-metal composites were fabricated by pressureless melt infiltrating the commercial Al-Si alloy blocks into porous pre-sintered B4C preforms. Pre-sintering of fine (2 μm), coarse (48 μm) and fine + coarse (1:1) B4C was carried out via spark plasma sintering in the absence of sintering additives under 50 MPa pressure between 1600 and 1900 C for 5 min. Degree of sintering is shown to increase with decreasing particle size and increasing temperature. Spark plasma sintering of fine B4C powders resulted in 68 and 99 % TD (theoretical density) at 1600 and 1900 C, respectively. In the case of coarse + fine B4C powders, ~71 and ~90 % TD (theoretical density) was achieved at 1600 and 1900 C, respectively. Increasing of sintering temperature from 1600 to 1900 C provided an enhancement of density from ~60 to ~70 % TD for the coarse B4C powders. Co-continuous, dense (<= 1.5% open porosity) and light-weight (~2.5 g/cm3) B4C-Al ceramic-metal composites were produced by pressureless melt infiltration under an Ar gas atmosphere at 1200 C for 10 minutes. X-ray diffraction analysis revealed that reaction products (Al3BC) hardly formed when pre-sintered B4C preforms were used under the investigated processing conditions. Scanning electron microscopy investigations of the samples confirmed the co-continuous structure of the ceramic-metal composites.

Ref no: 194 **Abstract:** 0772

Session 07: *Composite materials*

ALUMINA-BORON CARBIDE-ALUMINUM COMPOSITES

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In the present work, Al2O3-B4C-Al composites were fabricated via pressureless melt infiltration of aluminum alloys into porous Al2O3-B4C preforms. In order to investigate effects of open porosity content of the ceramic preform on the infiltration process, Al2O3-B4C preforms containing different volume fraction of open porosity content were prepared. Also effects of processing variables such as particle size of the starting powders, designed ceramic composition, infiltration temperature and alloy chemistry on the infiltration kinetics and resultant properties were discussed. XRD analysis of the produced ceramic-metal composites revealed that some of the B4C powder was consumed during the infiltration process via reacting with the Al alloy and Al3BC phase was formed. Microstructure of the composites was investigated by SEM analyses. The study confirmed that the wetting behaviour of this systems is a strong function of the surface chemistry, properties of the porous preforms and starting powder characteristics.

Ref no: 195 **Abstract:** 0777

Session 07: *Composite materials*

ELECTROCHEMICAL SENSING PLATFORM BASED ON SOL-GEL/PHENOTHIAZINE/ENZYME COMPOSITE FILMS

Alina N. Sekretaryova[1], Mikhail Yu Vagin[1], Mats Eriksson[1], Arkady A. Karyakin[2], Anthony P. F. Turner[1]

[1]Department of Physics, Chemistry and Biology (IFM), Linköping University, Linköping, Sweden

[2]Chemistry Department, Lomonosov Moscow State University, Moscow, Russia

The sol–gel process has gained tremendous attention in the past decades for the preparation of pure and composite material for numerous applications. Sol–gel glasses provide an ambient environment for bio-molecules encapsulation and such systems have been used widely for biosensor applications. Here we report on the formation of a sol–gel based composite material with mediator and enzymes for biosensor development.

It is well known that because of deep embedding of electrochemical prosthetic groups in the protein structure enzymes exhibit a rather slow rate of heterogeneous electron transfer. Mediators are molecules which can facilitate electron-transfer between enzyme and electrode as well as reduce the detection overpotential. However, all well known mediators of enzymes are water-soluble and they require aqueous media for sol-gel composite formation. On the other hand, concentrated organic solutions are favorable for the formation of uniform membranes due to condensation of siloxanes avoiding excessive dilution of the reaction medium with water.

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16TH SEPTEMBER, MONDAY

17:00 - 19:00	**Registration**
19:00	**Welcome Cocktail**

17TH SEPTEMBER, TUESDAY

	Hall 1	Hall 2	Hall 3	Hall 4
08:30 - 09:00	**Opening Ceremony**			
09:00 - 09:45	Advanced Materials Laureate Opening Lecture: **ANTHONY P.F TURNER - Printed Bioelectronics (Hall 1)**			
	Nanomaterials	**Optical, Electrical, and Magnetic materials**	**Biometerials**	**Composite materials**
	Session Chair: **H. KOBAYASHI**	Session Chair: **S. İÇLİ**	Session Chair: **A.P.F. TURNER**	Session Chair: **L.C. CHEN**
10:00-10:30	Advanced Materials Medal Lecture: **A. TIWARI** (Sweden) Inteligent nanosystems for biomedical devices	Invited Talk: **C. OW-YANG** Solution-processed LiF for work function tuning in electrode bilayers	The Nano Award Lecture: **A. MERKOÇİ** Tunning biosensor response by nanomaterials and signal transducing arquitectures	Invited Talk: **R. MUÑOZ-ESPÍ** Colloidal Systems as Scaffolds in the Formation of Organic/Inorganic Hybrid Nanoparticles
10:30-10:50	Versatile preparation of hybrid nanoaggregates of superparamagnetic iron oxide nanoparticles based on poly(4-vinyl pyridine) block copolymers self-assembly: **Nuno Rocha**	New type of immune biosensor based on the cerium oxide ISFETs for the patulin control in foods: **Nickolaj F Starodub**	Bioactive Electroconductive Hydrogels for the Abio-Bio Interface: **Anthony Guiseppi Elie**	AML Medal Lecture: Effect of transition metal ion doping on morphology and properties of polyaniline: **Saroj K. Shukla**
10:50-11:10	Dielectric response, functionality and energy storage in barium titanate- epoxy resin nanocomposites: **Anastasios C. Patsidis**	Electrochemical Evaluation of Embryoid Bodies of Different Size Using LSI-based Amperometric Sensor: **Mustafa Şen**	Supramolecular derivatives of antioxidants: preparation and physicochemical characterization: **Mino R Caira**	Introduction of antibacterial function to Cu-Al-Ni shape memory alloy: **Canan Aksu Canbay**
11:10-11:30	**Coffee Break + Poster Session (Sessions: 1,3, 4, 5, 8)**			
11:30-11:50	Design and Synthesis of temperature-sensitive bio-hydrogel coated SiO2-Au nano core-shell for photo thermal therapy of cancer cells: **Sarah Majd Jabbari**	Static model for the component GaAs MESFET With High Pinchoff Voltage: **Chahrazed Kaddour**	Structural change of silk fibroin by wet-heating treatment: **Tomoko Hashimoto**	Composites of poly(l-lactide-co-ε-caprolactone) with plasma treated hydroxyapatite: **El Miloudi Khaled**
11:50-12:10	High Temperature Stabilization of Nanocrystalline Fe and Fe-base Alloys: **Hasan Kotan**	The first principles study on the ground state of Zirconia: LDA(GGA)+U method: **Yasemin Öztekin Çiftci**	Biosensors: Functions and Applications: **Morteza Azizollahi Aliabadi**	Improving mechanical and physical properties of microwave and conventionally sintered oxide reinforced PM 316L composites by decreasing powder particle sizes: **Onur Ertugrul**
12:10-12:30	Fine tuning gold nanoparticles monolayer for protein and cell surface recognition: **Zeynep Ekmekci**	Synthesis, electrical and thermal properties of Bi4V2-xNbxO11 (x=0.0 and 0.10) ceramics: **Maheshwar Roy**	Adhesion of mussel foot proteins to the spin labeled surface: **Yaşar Akdoğan**	Analytical electron microscopy study of B4C-Al ceramic - metal composites produced by pressureless melt infiltration technique: **Pinar Kaya**
12:30-14:00	**Lunch Time + Poster Session (Sessions: 1,3, 4, 5, 8)**			
	Session Chair: **A. TIWARI**(Sweden)	Session Chair: **C. OW-YANG**	Session Chair: **A. MERKOÇİ**	Session Chair: **R.MUÑOZ-ESPÍ**
14:00-14:30	IAAM Medal Lecture: **A. TIWARI** (USA) Oxides for Next Generation Spintronics	Invited Talk: **S. İÇLİ** Organic Photoelectric Technologies in Energy Efficiency	AVI Award Lecture: **L. CHEN** Supramolecular Macrocyclic Systems as Non-precious Catalysts for Fuel Cells: a Bio-inspired Approach	Invited Talk: **S. VALYUKH** Photonic nanocomposites and their applications
14:30-14:50	DNA-directed silver nanoparticles on graphene oxide and its antibacterial properties against xanthomonas perforans: **Ismail Öçsoy**	Ab initio calculations of some physical properties of magnetic shape memory alloy: Ni2FeGa: **Cengiz Soykan**	Magnetic nanoparticles labeled stem cells: a theranostic approach towards cancer therapy: **Sanjeeb Kumar Sahoo**	A Numerical Study on Thermal Conductivity of Polymer Composites Reinforced with Conductive Fillers: **Ismail Hakki Tavman**
14:50-15:10	A novel method for the synthesis of nanocomposite (TiO2-Cu2O) and its application in degradation of surfactants from aqueous solution by sunlight: **Mohammad Hasan Entezari**	The electronic and magnetic properties of FeM (M=o, S, Se, Te) compounds in Rock-Solt structure: **Ahmad Mohammadi**	A Facile Approach for Controlled Synthesis of Curcumin-loaded Starch-maleate Nanoparticles: **Suh Cem Pang**	Lithium Niobate dispersed Silver Sulphate – A Composite Solid Electrolyte: **Shyamkant Wasudeorao Anwane**
15:10-15:30	High Stable Suspension of Magnetite Nanoparticles in Ethanol by Using Sono-Synthesized Nanomagnetite in Polyol Medium: **Tahereh Rohani Bastami**	Elastic and thermal properties of Sr1-xCaxCoO3: **N K Gaur**	Label-free aptamer based electrochemical biosensors: A simple way to sensitive diagnosis of cancer cells: **Masoud A. Mehrgardi**	Fluorinated surfmers modified clays and their corresponding polystyrene nanocomposites: structure-properties relationship study: **Chahinez Benbayer**
15:30-15:50	**Coffee Break + Poster Session (Sessions: 1,3, 4, 5, 8)**			
	Session Chair: **H. ZAREIE**	Session Chair: **L. ÖZYÜZER**	Session Chair: **L. KOCK**	Session Chair: **S. VALYUKH**
15:50-16:10	Characterization of Nano-Scale Magnesium Borates Hydrothermally Synthesized from Na2B4O7.5H2O, MgCl2.6H2O and H3BO3 at 80°C: **Azmi Seyhun Kıpçak**	Current-voltage characteristics of ni/6h-sic schottky barrier: **Metin Özer**	The effect of CaNa2-EDTA on zinc, carbohydrate metabolism and glutamic oxalic, glutamic pyruvic aminotransferases (GOT, GPT) and alkaline phosphatase activities in experimental diabetes: **Zine Kechrid**	Structural performance of laminated fiber reinforced polymer composites manufactured by resin transfer molding and vacuum curing&debulking table: **Erdem Akay**
16:10-16:30	Ph-controlled degradable polyuretahne/silica hybrid nanocapsules: **Matthew Hood**	Electronic and magnetic properties of lithium doped lanthanum manganites: **Ahmed M Ahmed**	Cellular uptake of ceria nanoparticles: **Gülnihal Özek Yelken**	The effect of particle size of calcium carbonate on the fracture toughness of polypropylene blok copolymer: **Elif Gülşah Yıldız**
16:30-16:50	Ultrasonic wave propagation in hexagonal semiconductor nanocrystalline ZnO and BeO compounds: **Pramod Kumar Yadawa**	Exploration of the electro-optic behavior of GaP photodetector in a semiconductor gas discharge device: **Hatice Hilal Kurt**	The impact of process parameters on spray dried Hydroxyapatite-Gelatin composites: **Tuğba Başargan**	Effect of ceramic waste particle fillers in epoxy based resin composite for a composite tile application: **Saijit Daosukho**
16:50-17:10	Expandable Polyethylene Based Nanocomposite: **Ehsan Rezaei Zare**	Novel synthesis of oxides based phosphors for near UV LEDs lighting and display devices: **V. V. Shinde**	Stimuli responsive three-dimensional conducting electrospun fibrous scaffolds for regenerative medicine: **Yashpal Sharma**	Crack initiation and propagation of composite compact tension specimen using eXtended Finite Element Method: **Mohammed Yahya Abdellah**
17:10-17:30	**Coffee Break + Poster Session (Sessions: 1,3, 4, 5, 8)**			
17:30-17:50	Real and apparent strengths of nanomaterials: **Şule Celasun**	Efficient red emitting Mg6-xCaxBP5O20:0.05Eu3+ (0.025<= x <=0.1) phosphor under near-UV excitation: **Kartik N Shinde**	Smart Theragnosis:Multi Drug Resistance Cancer Perspective: **Hirak Kumar Patra**	The effect of matrix/reinforcement ratio on the physical and mechanical properties of cold pressed and pyrolyzed C/C composite material: **Enbiya Türedi**
17:50-18:10	Extraction of trace amounts copper(II)using octadecyl silica membrane disks modified isocyanate-treated GOs (iGOs): **Ali Moghimi**		Evaluation of the surface properties of biomaterials coated with nanolayers: **Serap Gümüş**	Synthesis of zeolite X-carbon from coal bottom ash: **Nurul Widiastuti**
18:10-18:30	Extraction and Determination of Ni(II) by Histidine functionalized multi-walled carbon nanotubes adsorbed on surfactant coated C18: **Nima Yari**		**18:10-18:40** Invited Talk: **Y. Kumar MISHRA** Fabrication of different nano-microstructures by flame transport synthesis: From electronic to biomedical applications	Reprocessing of fibre reinforced polyethylene composites, effects on mechanical properties: **Ahmet Ünal**
18:30-18:50	Reactive oxygen species (ROS) generation capacity of TiO2 nanocrystals: **Roghayeh Imani**			
18:50-20:00	**Poster Session (Sessions: 1,3, 4, 5, 8)**			

16th SEPTEMBER, MONDAY	
17:00 - 19:00	Registration
19:00	Welcome Cocktail

17th SEPTEMBER, TUESDAY			
	Hall 5	**Hall 6**	**Hall 7**
08:30 - 09:00	**Opening Ceremony**		
09:00 - 09:45	Advanced Materials Laureate Opening Lecture: **ANTHONY P.F. TURNER - Printed Bioelectronics (Hall 1)**		
	Polymeric materials	**Energy, Enviromental, and Green Materials**	**Structural and Constructural Materiasl**
	Session Chair: **Y. TAMADA**	Session Chair: **E. ÖZENSOY**	Session Chair: **M.A. GÜLGÜN**
10:00-10:30	Invited Talk: **D. CRESPY** Design of nanocapsules for self-healing applications	Invited Talk: **El KHAKANI** Pulsed KrF-Laser based Synthesis of Highly Photoactive Nanohybrid Structures	Invited Talk: **I. HALASZ** Molecular aspects of micro- and nano-porous silicates
10:30-10:50	Polysiloxanes with conjugated aromatic moieties in their side chains - a potential new materials for OTFT and SAW sensors: **Tomasz Ganicz**	Ion-regulated Photoinduced Electron Transfer in BODIPY-BAPTA Fluorescent Switches: **Pınar Batat**	Homology Identification of microstructual evaluation of 13Cr-2Ni-2Mo stainless steel quenched by induction heating: **Kazuaki Nakane**
10:50-11:10	Application of the liquid photopolymerizable membrnes at the creation of the enzymatic biosensors: **Nickolaj F Starodub**	Graphene Nanowall Supercapacitors with Ultra-high Performance: **Kuei Hsien Chen**	Effect of laser heat treatment by scanning laser on mechanical properties of ceramic coated steels: **Hirotaka Tanabe**
11:10-11:30	**Coffee Break + Poster Session (Sessions: 1,3, 4, 5, 8)**		
11:30-11:50	Effect of compatibilizer on the mechanical properties of Polyethylene/Poly(ethylene terephthalate) blends:**Tugba Guven**	Study of carbon-hydrogen bond on the microstructure of ball-milled graphite: **Yinghe Zhang**	Experimental study for detection of ductile fracture in weldments: **Zaoui Moussa**
11:50-12:10	Novel superabsorbent hydrogel composite with non clay mineral aimed at water sustainability: **Judith Pessoa Andrade Feitosa**	Near infra red utilization in dye sensitized solar cells by incorporation of up-converting phosphor nanoparticles: **Atif Khan**	Molybdenum arc –sprayed coatings: model of splat solidification and micro-structure development: **Yamina Mebdoua**
12:10-12:30	Mechanical characterization of glass fiber reinforced polymer resin incorporating waste glass aggregate: **Onur Üzüm**	Influence of deposition Process on the Bandgap and Electrical Properties of TiO2 Solar Cells: **Saad Kadhum Al Sabbagh**	Sintering and Microstructural Investigation of Gamma-Alpha Alumina Powders: **Emre Yalamaç**
12:30-14:00	**Lunch Time + Poster Session (Sessions: 1,3, 4, 5, 8)**		
	Session Chair: **D. CRESPY**	Session Chair: **El KHAKANI**	Session Chair: **I. HALASZ**
14:00-14:30	Invited Talk: **K. MALLICK** In situ polymerization and composite formation' (IPCF): An important route for the tailoring of advanced synthetic materials	Invited Talk: **E. OZENSOY** Understanding Catalytic Materials at the Molecular Level: From Thermal Chemistry to Photochemistry	Invited Talk: **M.A. GÜLGÜN** The Role of Interfaces in an Oxide-Skeleton Carbonate-Matrix Nanocomposite
14:30-14:50	Anton-Paar: Rheology for Advanced Materials: **Gizem Akay**	Controlled Pore Functionalization of Track-etched PVDF Membranes via RAFT Process to yield Functionalized Membrane Electrodes (FMEs): A Powerful Combination of Top-Down and Bottom-Up Processes: **Murat Barsbay**	Synthesis of zeolite-Y templated carbon by carbonization of sucrose as a precursor: **Nurul Widiastuti**
14:50-15:10	Elaboration of new uv powder coatings based on polyamide bio-sourced: **Majed Rejaibi**	The potential of Eco-Friendly Adsorbents from C. equisetifolia Plant Seeds For Dye Removal: **Mohamad Awang**	Abrasion Resistance of Reactive Powder Concrete: The Influence of Water-to-Cement Ratio and Steel Micro-Fibers: **Çağlar Yalçınkaya**
15:10-15:30	Enhanced antistatic durability for metal treated polyester via atmospheric plasma technique: **Merve Özlem Dobur**	Expression and Characterization of Rv0447c product is potentially the methyltransferase involved in tuberculostearic acid biosynthesis in Mycobacterium tuberculosis: **Laxman Singh Meena**	Creep Analysis of Linear Viscoelastic Thin Circular Plates By Finite Element Method: **Barış Tanrıverdi**
15:30-15:50	**Coffee Break + Poster Session (Sessions: 1,3, 4, 5, 8)**		
	Session Chair: **F. TIHMINLIOGLU**	Session Chair: **O. EBİL**	Session Chair: **K. KIDA**
15:50-16:10	Investigation of bonding between PBT and PP via lap-shear test: **Aylin Bekem**	Removal of Nickel from aqueous solutions by activated carbon obtained from seawater algae: **Belhakem Mostefa**	Electrodeposition and characterization of Zn based double-layer coatings on steel surfaces for industrial applications: **Mustafa Toparli**
16:10-16:30	Development of nanocomposites based on polypyrrole and carbon nanotubes for supercapacitors: **Subhash Baburao Kondawar**	Photo-catalytic hydrogen production over iron containing aluminophosphates:**Hentit Hafida**	Effects of laser shock processing on wear properties of 6061-T6 alloy: **Simge Gencalp Irizalp**
16:30-16:50	Synthesis and influence of Ce3+ codopant on the luminescence sensitivity of pyrophosphate phosphor: **Ritesh L Kohale**	Contribution to thermodynamic and kinetic investigations of Pb2+ ions adsorption in the presence of competing Cd2+ ions onto acid-activated clay: **Boufatit Makhlouf**	Identifying mechanical features of concrete material using image processing technology: **Gamze Cankaya**
16:50-17:10	Exploring eb-induced reactive processing to develop novel thermoplastic elastomers: **Kinsuk Naskar**	Magnesium borate synthesis from boric acid sludges at different mole ratios by hydrothermal method: **Azmi Seyhun Kıpçak**	The Use of Electric Arc Spraying coatings Alternative to Hot Dipped and Cold galvanizing: **Nacer Eddine Bacha**
17:10-17:30	**Coffee Break + Poster Session (Sessions: 1,3, 4, 5, 8)**		
17:30-17:50	Attaining prolonged antibacterial efficacy for plasma modified polyamide to obtain an advanced functional textile: **Fatma Betül Demirel**	Radiation induced grafting onto pe/pp nonwoven fabrics for the preparation of atrazine imprinted polymers: **Meshude Akbulut**	Effect of Fe-rich intermetallics on the microstructure and mechanical properties of thixoformed A380 aluminum alloy: **Simge Gencalp Irizalp**
17:50-18:10	Highly chlorine tolerant polymeric coatings for reverse osmosis membranes: **Levent Semiz**	Preparation and characterization of bio-pitch for carbon foam production: **Murat Kılıç**	The investigation of the effects of the hot forging process on the metallurgical and mechanical properties Of 41Cr4 tempered steel and 38MnVS6 microalloyed steel:**Yiğit Erçayhan**
18:10-18:30	Synthesis, microstructure and electrochemical properties of sputter deposited licoo2 thin films: **Obili Mahammad Hussain**	Synthesis of pillared acid-activated clay as a solid-acid catalyst for production of linear alkylbenzene: **Mohammad Hadi Mohammadi**	Growth kinetics of boride layer 316L steel: **Alae Kaouka**
18:30-18:50	Influence of photoinitiators and nanoparticles on hardening of UV-light cured coatings proved by nanoindentation techniques: **Atul Tiwari**	Vanadium-oxo-Sulphate and molybdenum hexa-carbonyl supported on silyl amine functionalized nano-boehmite as a green catalyst:**Mahdi Mirzaee**	The effects of pin geometry on the microstructure and mechanical properties of friction stir welded AZ31 joints: **Hadi Torkamani**
18:50-20:00	**Poster Session (Sessions: 1,3, 4, 5, 8)**		

18th SEPTEMBER, WEDNESDAY

	Hall 1	Hall 2	Hall 3	Hall 4
09:00 - 09:45	Advanced Materials Medal Lecture: HISATOSHI KOBAYASHI (Hall 1) Nano fibrous materials for tissue engineering applications			
	Nanomaterials	**Optical, Electrical, and Magnetic materials**	**Biometerials**	**Composite materials**
	Session Chair: **A.P.F. TURNER**	Session Chair: **E. ÜNALAN**	Session Chair: **A. TIWARI** (Sweden)	Session Chair: **F. TIHMINLIOGLU**
10:00-10:30	Invited Talk: **S. ÖZÇELİK** Chemistry and exciton dynamics of the quantum nanoalloys	Invited Talk: **L. ÖZYÜZER** Emission of the THz Waves from layered superconductors by the Injection of Spin Polarized Current	IAAM Medal Lecture: **L. KOCK** The application of novel nanotechnologies to image biomaterials	Invited Talk: **O. AKBULUT** Utilization of Multiphase Systems (MuPSs) in Separation of Objects
10:30-10:50	Nano-structured silicon as perspective transducer for the immune biosensors: **Nickolaj F Starodub**	[R1] Half-metallic ferromagnetism in (SrTiO3)n/(LaMnO3)m superlattices: **Fabrizio Cossu**	Thin Organic Film based Biosensors for Membrane Associated Toxin Detection: **Umit Hakan Yildiz**	Transparent zirconia/acrylic nanocomposite: **Anthony Shiaw Tseh**
10:50-11:10	Morphology and Surface Engineering as a Tool for Enhancing Cellular Internalization of Nanoparticles: **Didem Sen Karaman**	Formation kinetics, morphology and magnetic properties of BaHF ceramics synthesized in x wt%NaCl- (100-x) wt% KCl molten salts: **Seray Kaya**		Physical, optical and mechanical characterization of organic/inorganic hybrid nanocomposite: **Baki Hazer**
11:10-11:30	**Coffee Break + Poster Session (Sessions: 2, 6, 7, 9, 10)**			
11:30-11:50	Ceria/Polymer Hybrid Nanoparticles as Catalysts for Organic Reactions: **Margherita Mari**	Interplay between superconductivity and magnetism in '122' type iron-based superconductors: **Sevda Avci**	IAAM Medal Lecture: Cell mobility on silk fibroin film -Influence of fibroin primary sequence: **Yasushi Tamada**	Injection parameters optimization for tensile properties of calcium carbonate filled polypropylene homopolymer composite material via experimental design: **Yıldız Yuluğkural**
11:50-12:10	TiO2-nanoparticles modified with cetyl trimethyl ammonium bromide as solid sorbent for preconcentration of Parathion prior to determination by gas chromatography: **Naser Dalali**	Influence of solution pH on the production of Cerium-Substituted Yttrium Iron Garnet ceramic fabricated by using sol-gel process: **Ismail Yariçi**	Nano-structural control of β-type titanium alloys through severe plastic: **Hakan Yılmazer**	Thermal and frequency dependence dielectric properties of conducting polymer / fly ash composites: **Subhash Baburao Kondawar**
12:10-12:30	Graphene/poly cyclic butylene terephtalate nanocomposites: morphology, thermal and dielectric response: **Georgios C. Psarras**	Nanocrystalline nickel ferrite reinforced conducting polyaniline nanocomposites: **Subhash Baburao Kondawar**	Thermoresponsive Nanofilms: **Mohammed Yaseen**	Metal-Phthalocyanine functionalized carbon nanotube as sensor for chloroform vapor: **Swasti Saxena**
12:30-14:00	**Lunch Time + Poster Session (Sessions: 2, 6, 7, 9, 10)**			
	Session Chair: **S. ÖZÇELİK**	Session Chair: **L. ÖZYÜZER**	Session Chair: **Ü. H. YILDIZ**	Session Chair: **Ö. AKBULUT**
14:00-14:30	Invited Talk: **H. ZAREIE** Nanostructures for plasmonic biosensors	Invited Talk: **E. ÜNALAN** Silver Nanowire Networks	The Nano Award Lecture: **J. PIERRE AIME** Bioinspired Nanotechnology & High Speed AFM Instrumentation	Invited Talk: **O. EBİL** Shape Stabilized Composite Zinc Anode for Secondary Batteries
14:30-14:50	Computational Study of Physicochemical Characteristics of Novel Nano Structures of Mitoxantrone Anti-Cancer with Fullerenes in Photo Electron Transfer Process: **Behnoud Hormozi**	First principles studies on the pressure dependence of chalcopyrite semiconductor ZnSiP2: **Irem Öner**	Biomaterial functionalization by single step peptide immobilization via Tyr oxidation: **Sachiro Kakinoki**	Effect of Ni/NiO particles on structure and crack propagation in zirconia based composites: **Igor Danilenko**
14:50-15:10	Removal of methylene blue, a basic dye, from aqueous solutions uing nano zero- valent iron (NZVI): **Simin Arabi**	Electrical And Microstructural Properties Of (Cu, Al, In)-Doped SnO2 Films Deposited By Spray Pyrolysis: **Sibel Gürakar**	Temperature-gated switchable bioelectrocatalytic interface: **Onur Parlak**	Optimization of wear resistance of Polyurethane Nano-Composite Coatings by using Artificial Neural Network(ANN) and Genetic Algorithm(GA): **Ali Haghighat Mesbahi**
15:10-15:30	A hybrid functional study of the LaAlO3/SrTiO3 interface: **Fabrizio Cossu**	Synthesis and influence of Ce3+ codopant on the luminescence sensitivity of pyrophosphate phosphor: **Ritesh L Kohale**	SPION-based theranosis of Arterial Thrombosis: **Suryyani Deb**	
15:30-15:50	**Coffee Break + Poster Session (Sessions: 2, 6, 7, 9, 10)**			
	Session Chair: **T. SENGER**	Session Chair: **S. İÇLİ**	Session Chair: **H. KOBAYASHI**	Session Chair: **B. HAZER**
15:50-16:10	Zirconia core/oligoperoxide shell nanocomposite: aspect of structure: **Oksana Gorban**	A soft chemical method for fabricating recyclable sers substrate with a zno/ag photocatalyst/sers system: **Ahmad Esmaielzadeh Kandjani**	Ultrasonic Characterization of aqueous Polyvinyl Pyrrolidone (PVP): **Omprakash P Chimankar**	Preparation and characterization of bioactive film for edible coating and packaging applications: **Ipek Erdogan**
16:10-16:30	Nonisothermal crystallization kinetics of Poly(Butylene Terephthalate)/Multiwalled Carbon Nanotubes Nanocomposites: **Milind Janardan Kulkarni**	Synthesis and optical studies of Dy3+ doped LiAlSi3O8 phosphors: **Mrunal D Deshpande**	PEO/Fe304 Scaffold Production with Electrospinning: **Mert Osman Duman**	The tensile properties of the calcium carbonate filled high density polyethylene composite pipes in accordance with ISO 6259-1: **Hande Akten**
16:30-16:50	Preparation and characterization of ceria nanopowders by various precipitation techniques: **Gülnihal Özek Yelken**	Preparation and Characterization of ITO-metal-ITO Multilayer Thin Films Deposited by DC Magnetron Sputtering: **Turgay Çoruhlu**	Improvement of stability and activity of immobilized glucose oxidase on modified magnetite nanoparticles: **Abdol Khalegh Bordbar**	Chemical vapor sensing properties of electrospun nanofibers of polyaniline / ZnO nanocomposites: **Subhash Baburao Kondawar**
16:50-17:10	Synthesis and structural properties of mesoporous TiO2 photocatalyts by using microwave calcination: **Şafak Toygun**	Theoretical investigation of triscarbazole derivatives as host materials for blue electrophosphorescence: **Seyhan Salman**	Characterization of sandblasted and acid etched titanium surfaces for dental implants: **Büşra Balli**	A novel electrochemical sensor based on graphene nanosheets and carbon nanospheres/chitosan nanocomposite modified glassy carbon electrode: **Masoumeh Ghalkhani**
17:10-17:30	**Break + Poster Session (Sessions: 2, 6, 7, 9, 10)**			
17:30-17:50	Building a bridge between solution –solid state chemistry: **Taimur Athar**	Room temperature sputtering of ZnO thin films under gas flow variation for photovoltaic application: **Nilufer Evcimen Duygulu**	**17:30-18:00** Invited Talk: **M. ÖZSÖZ** Nanomaterials in electrochemical DNA biosensors	Contemporary challenges and opportunities of carbon nanotubes reinforced ceramics nanocomposites: **Iftikhar Ahmad**
17:50-18:10	Air stable copper nanoparticles for fast reductive degradation of organic dyes in aqueous medium: **Razium Ali Soomro**	Photophhysical properties and QDLED applications of yellow emitting conjugated polymer:CuInS2/ZnS QD nanoparticles: **Nuriye Demir**	**18:00-18:20** Artificial Cell Membranes for Drug Screening: **Ahu Arslan Yildiz**	Alumina-Boron Carbide-Aluminum Composites: **Ayse Kalemtas**
18:10-18:30	Noninteracting Fermi gas in rotating harmonic trap. Exact one–particle density distribution in Fourier space: **Bencheikh Kamel**	Cadmium Free Window Layer for Thin Film Solar Cell Applications: Material Properties and In-situ Doping: **Erkan Aydın**		Conductive polymer composites and coated metals as alternative bipolar plate materials for all-vanadium redox-flow batteries: **Burak Çağlar**
18:30-18:50	Crystallization Process and Microhardness Evolution in as-spun (Al85Co7Y8)98Si2 amorphous alloy: **Baris Avar**			Synthesis and characterization of cellulose acetate zirconium (IV) phosphate nanocomposite ion exchange capacity: **Deepak Pathania**
19:00-19:45	TÜBİTAK Ulusal Akademik Ar-Ge Proje Destekleri: **Mehmet Ufuk ATAY (Hall 1)**			
19:00-20:00	Poster Session (2, 6, 7, 9, 10)			
20:30-23:30	**Gala Dinner**			

18TH SEPTEMBER, WEDNESDAY

	Hall 5	Hall 6	Hall 7
09:00 - 09:45	Advanced Materials Medal Lecture: **HISATOSHI KOBAYASHI (Hall 1)** Nano fibrous materials for tissue engineering applications		
	Polymeric materials	**Energy, Enviromental, and Green Materials**	**Structural and Constructural Materiasl**
	Session Chair: **V. BULMUS**	Session Chair: **D. KARABELLİ**	Session Chair: **I. HALASZ**
10:00-10:30	Invited Talk: **F. ALEMDAROĞLU** Fluoropolymers: versatile polymers through strong bonding	Invited Talk: **A. KELARAKIS** Functional Nanomaterials for Energy and Sustainability	IAAM Medal Lecture: **K. KIDA** Changes in three-dimensional magnetic fields of tool steel (JIS-SKS93) around plastic deformation area due to Vicker's indentations
10:30-10:50	Interconnected polypyrrole-polyaniline nanofibers: synthesis, characterization and applications for water treatment: **Madhumita Bhaumik**	Porous polyurea: a simple pathway to its synthesis and its application as a novel absorbent for dye removal: **Xiang Zheng Kong**	Effect of reciprocation motion on retained austenite using SAE 52100 steel bars: **Koshiro Mizobe**
10:50-11:10	Synthesis and characterization of nanofibers of conducting polyaniline and its substitute derivatives: **Subhash Baburao Kondawar**	Evaluation of the effectiveness of the retention of a pollutant by several depollution methods (using clayey material, complexing organic compound, and phytoremediation): **Amel Nasri**	Synthesis of silicon carbide and/or silicon nitride from biomass husk through thermoanalytical studies: **Muhammad Ali**
11:10-11:30	**Coffee Break + Poster Session (Sessions: 2, 6, 7, 9, 10)**		
11:30-11:50	Synthesis of Polyurethane Based Macroinitiator with Fluorescent Properties through ATRP: **Dhanraj T Masram**	Phase structure and optical properties of rare earth doped tio2powders: **Hüsnü Arda Yurtsever**	Theory functional calculations (DFT), natural bond orbital, structural properties, and frequency for the two perfluoroalcohols: C4F9OH and C6F5OH: **Shahriar Ghamami**
11:50-12:10	Production of biodegradable PLA/TPU-talc composites: **Şebnem Kemaloğlu Doğan**	Remediation of heavy metals contaminated waters using multicomponent nanoparticles: **Luis Cumbal**	Parametric study of RC beams strengthen with GFRP laminates using ANSYS: **Tarak Prafulkumar Vora**
12:10-12:30	High density Polyethylene/Zinc oxide nanocomposites for ultra violet radiation shielding: **Ahmed Abou Kandil**	Green material on a building: Vertical garden: **Filiz Çetinkaya Karafakı**	Electrochemical sensing platform based on sol-gel/phenothiazine/ enzyme composite films: **Alina N. Sekretaryova**
12:30-14:00	**Lunch Time + Poster Session (Sessions: 2, 6, 7, 9, 10)**		
	Session Chair: **F. ALEMDAROGLU**	Session Chair: **A. KELARAKIS**	Session Chair: **S. AKKURT**
14:00-14:30	Invited Talk: **V. BULMUS** Raft-synthesized biohybrid polymers and nanostructures as functional building blocks for bioapplications	Invited Talk: **D. KARABELLİ** Next generation high energy battery systems- electrode materials	Invited Talk: **A. MAKAT** WDS: where EDS hits the limits
14:30-14:50	Artifical Neural Network Approach for Determination of Polymers' Mechanical Properties: **Fatma Kosovalı Çavuş**	Preparation and Thermal Properties of form-stable disodium hydrogen phosphate-myristic acid /zinc oxide composites as phase change materials for thermal energy storage: **Zuhal Karagöz**	BObservation of fisheye cracks around TiN and Al2O3 inclusions in repeatedly quenched high carbon bearing steel via homology: **Kazuaki Nakane**
14:50-15:10	Synthesis,SEM, and XRD studies of thin films of Pol(vinyl alcohol)-silica: **Mohammad Saleem Khan**	Synthesis, microstructure and electrochemical properties of sputter deposited licoo2 thin films: **Obili Mahammad Hussain**	Synthesis of electroconductive membrane using poly(hydroxymethyl-3,4-ethylenedioxythiopheneco-tetremethylene-Nhydroxyethyl adipamide): **Hamidreza Barghi**
15:10-15:30	Electroresponsive behavior and dielectric characterization of sodium alginate-poly(acrylic acid) semi-ipn gel films: **Gülten Gürdağ**	Reaction kinetics for embedded enzymatic degradation of polycaprolactone films: **Erhan Ozsagiroglu**	Synthesis and Characterization of copolymers containing amino acid: Tensile stress- strain behavior and Dynamic mechanic properties: **Birten Çakmalı**
15:30-15:50	**Coffee Break + Poster Session (Sessions: 2, 6, 7, 9, 10)**		
	Session Chair: **O. EBİL**	Session Chair:**I. HALASZ**	
15:50-16:10	Fabrication and volatile organic vapor sensing properties of pyrene-labelled polystyrene thin film surfaces: **Zikriye Özbek**	Well-ordered fibrils of crystalline from waste materials as a coagulant with high potential to remove Azo dyes: **Dina Morshedi**	
16:10-16:30	The effect of ground colemanite on the fracture toughness of polypropylene homo polymer: **Tülin Şahin**	Recycling of investment casting ceramic molds in production of gas turbine blades: **Mohammad Naseri**	
16:30-16:50	Study of Electrical Properties of (PVA-BaSO4.5H2O) Composites: **Khalid Hussain Hatif Al Attiyah**	Removal of reactive black 5 from aqueous solutions by nano-tio2 immobilized on activated carbon: **H.Belayachi**	
16:50-17:10	Acrylic and cinamic acids as wax crystal modivires: **Ali Mohamed El Soll**		
17:10-17:30	**Break + Poster Session (Sessions: 2, 6, 7, 9, 10)**		
17:30-17:50	Polymerization of Catechol and Its Derivations by Cationic Porphyrin Catalyst: **Zahra Zamiraei**		
17:50-18:10	The Effect Of Particle Size Of Calsium Carbonate On The Hoop-Stress Of High Density Polyethylene Pipes: **Levent Sözen**		
18:10-18:30	Isothermal Degradation Kinetics of Poly(Hydroxybutyrate) and Poly(Hydroxybutyrate-co-Hydroxyvalerate) Nanocomposite Films: **Okan Akin**		
18:30-18:50	Evaluation of the physical and mechanical properties of rubber compounds reinforced with carbon fiber: **Şeyda Polat**		
19:00-19:45	TÜBİTAK Ulusal Akademik Ar-Ge Proje Destekleri: **Mehmet Ufuk Atay (Hall 1)**		
19:00-20:00	Poster Session (2, 6, 7, 9, 10)		
20:30-23:30	**Gala Dinner**		

19TH SEPTEMBER, THURSDAY				
	Hall 1	**Hall 2**	**Hall 3**	**Hall 4**
09:00 - 09:45	Plenary Talk: **N. SERDAR SARIÇİFTÇİ (Hall 1)**			
	Nanomaterials-1	**Nanomaterials-2**	**Biomaterials**	**Composite materials-1**
	Session Chair: M. ÖZSÖZ	Session Chair: L.C. CHEN	Session Chair: A.P.F. TURNER	Session Chair: F. TIHMINLIOĞLU
10:00-10:20	Influence of disorder on thermal transport properties of low-dimensional nanomaterials: **Cem Sevik**	Ageing of polyvinylbutyral solutions with impact on spinnability: **Martin Stenicka**	Production and characterization of silica reinforced chitosan composites for orthopedic biomaterial applications: **Sedef** Tamburaci	TMPTA-loaded PU-Based microcapsules show spontaneous polymerization under UV-Radiation: **Zoya Tuiebakhova**
10:20-10:40	Anionic Zeolite-like MOFs for porpane/propylene separation: **Baris Demir**	Stability and release behavior of drug loaded nanoemulsions: **Açelya Çalışkan**	Encapsulation of trans-resveratrol using electrospray method for enhanced stability: **Ceren Sunguc**	Epoxy composites with adjustable colors: **Khodzhaberdi Allaberdiev**
10:40-11:00	A production method for nanosilica-MMA polymer composite marble: **Samah A Abdulaziz**	Super-Hydrophobic activated carbon containing silica aerogel: **Jafarsadegh Moghaddas**	An enzyme catalyzed injectable hydrogel based on tyramine conjugated tragacanth and gelation: **Moslem Tavakol**	Efficient aligned luminescent electrospun composite nanofibers of europium complex Eu(TTA)3phen and polyethylene oxide: **Subhash Baburao Kondawar**
11:00-11:20	**Coffee Break**			
11:20-11:40	Comparative study of the encapsulation of alendronate sodium by the nanoprecipitation and the double emulsion solvent evaporation technique: **Karim Miladi**	Sol-gel polymerization of silica nanoporous gel: rheological study: **Fatemeh Pashaei Soorbaghi**	A novel approach for anti-platelet drug designing: The modulation of nano-surface: **Suryyani Deb**	Properties of Sized Carbon Fiber Reinforced Poly(Butylene Terephthalate) Composites: **Nevin Gamze Karsli Yilmaz**
11:40-12:00	Radiation Induced Synthesis Of In203 Nanoparticles by Thermal Decomposition and by Sol-Gel Methods: **Refaat Mohamed Mahfouz**	Tungsten Oxide Nanocrystalls and NOX Sensing Properties: **Mohammad Izadyar**	Synthesis and investigation of novel chitosan and nano-hydroxyapatite based scaffolds for bone tissue engineering: **Mehmet Şenel**	Optical Properties of PVA:CdCl2. H2O Polymer Electrolytes: **Omed Ghareb Abdullah**
12:00-12:20	Analysis of the fluid flow and material deformation in bulk acoustic wave piezoelectric micropumps: **Ersin Sayar**	Mechanical properties of several polymer (nano) composite packaging films: **Zuzana Dujkova**	Effect of annealing temperature on microstructure and surface properties of titanium oxide (TI02) nanotubes for biomedical applications: Abdurrahman **Halis Güzelaydin**	Hollow fiber solid phase microextraction assisted by modified nanoparticles:An approach to rational microextraction design: **Zarrin Eshaghi**
12:20-14:00	**Lunch Time**			
14:00-14:45	Plenary Talk: **TAHİR ÇAĞIN (Hall 1)** Optimizing Coupling Coefficients of Materials for Energy Conversion Applications			
14:45-14:50	**Closing remark**			

19TH SEPTEMBER, THURSDAY			
	Hall 5	**Hall 6**	**Hall 7**
09:00 - 09:45	Plenary Talk: **N. SERDAR SARIÇİFTÇİ (Hall 1)**		
	Nanomaterials-3	**Nanomaterials-4**	**Composite materials-2**
	Session Chair: **S. SARIÇİFTÇİ**	Session Chair: **H. ZAREIE**	Session Chair: **V. BULMUS**
10:00-10:20	Nanofibrous filtering materials with catalytic activity: Ganna Ungur	Stability of ZnO nanorods coated on the channel wall under continuous flow conditions: **Berrin Ikizler**	A. C. conductivity in modified PMMA-PVC blends: **Vijay V. Soman**
10:20-10:40	Gold nanorods using as nanosensor for sensing of fe(iii) ions in aqueous: **Dinesh Kumar**	Building multilayers on pulp fibres with cationic and anionic nanofibrilated celluloses: **Sedat Ondaral**	Injection parameters optimization for impact properties of calsium carbonate filled polypropylene homopolymer composite material by experimental desing: **Senol Sahin**
10:40-11:00	Pressure effect on elastic properties of spherocobaltite - A nanoscale simulation study: **Brahim Khalil Benazzouz**	Electronic structure and NMR study of selected doped and functionalized graphene: **Azita Nouri**	Smc manufacture with advanced reinforcement material: **Mahmut Bingöl**
11:00-11:20	**Coffee Break**		
11:20-11:40	Modified arcan tests for concrete with carbon nano tubes: **Sıddık Şener**	Nanoporous composites for Chromium(VI) recovery from Water: A Kinetic and Thermodynamic Approach: **Elif Aslı Şenyuva**	Barrier properties of PE, PP, ionomer and EVA (nano)composite films: **Dagmar Merinska**
11:40-12:00	A Monte Carlo study on dose enhancement effect of various paramagnetic nanoshells in brachytherapy: **Toktam Ahmadi Moghaddas**	Fast and economical route to oxides: tio2 nanostructures: **Shah Mohd Ashraf**	Processing of Co-Continuous B4C-Al Composites: **Ayse Kalemtas**
12:00-12:20	Hydrothermal synthesis of Yb+3 Doped Sb6O13 nanocrystals and their properties: **Elham Ghavidelaghdam**	In Situ Generated Fillers: Morphological Investigation of Poly(MA-alt-α-olefin)(C6-18)/Silica Hybrids: **Deniz Demircan Bozdoğan**	Tribological properties of TiAlCrNbN graded composite coating deposited on AISI H13 steel substrate with pulsed Dc closed field unbalanced magnetron sputtering method: **Levent Kara**
12:20-14:00	**Lunch Time**		
14:00-14:45	Plenary Talk: **TAHİR ÇAĞIN (Hall 1)** Optimizing Coupling Coefficients of Materials for Energy Conversion Applications		
14:45-14:50	**Closing remark**		

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İZMİR YÜKSEK TEKNOLOJİ ENSTİTÜSÜ
Türkiye'nin Teknoloji Rotası