



3rd International Colloquium Energy and Environmental Protection November 14th-16th, 2018

Program

Wednesday, November 14 th , 2018		
ROOM AP 9		
09:00-09:30	Colloquium Opening / Welcome Message	<p>Assoc.prof. Daniela Popovici – Dean of the Petroleum Refining and Petrochemistry Faculty Petroleum-Gas University of Ploiesti</p> <p>Prof. Dragoş Ciuparu – Chairman of the Scientific and Technical Board Petroleum-Gas University of Ploiesti</p>
BASF Seminar		
09:30 – 09:45	Welcome from Lukoil	Mr. Florin Enache - Process Engineering Department, Petrotel-Lukoil
09:45 – 10:15	BASF Welcome and introduction	Dr. Udo Huenger -Director Refining Catalysts - Europe, Middle East and Africa
10:15– 10:45	Networking Coffee Break –Sponsored by BASF Refining Catalysts	
10:45 – 11:15	FCC Process intro and Myths and Facts	Mr. Vasil Bozukov -Technical Sales Manager - Refining catalysts
11:15 – 12:00	FCC Catalyst fundamentals	Dr. Melissa Clough Mastry - Technology Manager – Europe, Middle East and Africa
12:00 – 12:15	Q&A Session	



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12:15 – 13:15	Networking Lunch – Sponsored by BASF Refining Catalysts	
13:15 – 13:45	BASF FCC Technical services	Mr. Vasil Bozukov -Technical Sales Manager - Refining catalysts
13:45 – 14:15	FCC Modelling and optimization	Mr. Martin Modesto Miranda Lopez - Technical Service Manager - Europe, Middle East and Africa
14:15 – 14:30	Q&A Session	
14:30 – 15:00	FCC Emergency Shutdowns and start - ups	Mr. Martin Modesto Miranda Lopez -Technical Service Manager - Europe, Middle East and Africa
15:00 – 15:30	Networking Coffee Break – Sponsored by BASF Refining Catalysts	
15:30 – 16:15	Reduction of SO_x, NO_x and particulates emissions generated in FCCU	Mr. Florin Enache - Process Engineering Department, Petrotel-Lukoil
16:15 – 16:45	FCC Catalyst innovation	Dr. Melissa Clough Mastry - Technology Manager - Europe, Middle East and Africa
16:45 – 17:00	Closing remarks	Dr. Udo Huenger - Director Refining Catalysts - Europe, Middle East and Africa



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Thursday, November 15 th , 2018		
9.00 – 12.30	70th Anniversary Ceremony of Petroleum Gas University of Ploiești Aula UPG	
12.30 – 13.30	Lunch IP6	
13.30 – 14.00	Registration of the Colloquium participants IP4 Hall	
PLENARY LECTURE Room IP4		
14.00 – 14.50	Catalysis by design: well-defined single-site heterogeneous catalysts	Prof. Jean Marie Basset KAUST Catalysis Center, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia
14.50 – 15.10	Coffee Break	
15.10 – 16.00	Advanced polymer-based nanocomposites. New methods and concepts	Prof. Horia Iovu Politehnica University of Bucharest
16.00 – 16.20	Coffee Break	
16.20 – 17.10	Aviation Fuel Characterisation and Fit-for-Purpose Properties	Dr. Ehsan Alborzi Aviation Fuel and Lubricant Researcher, Department of Mechanical Engineering, The University of Sheffield



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Friday, November 16 th , 2018				
8.30 – 9.00	Registration of the Colloquium participants IP4 Hall			
	Section: Chemical Engineering and Process Control Chairman: Prof. Ion Bolocan Prof. Dragoș Ciuparu Secretary: Assist.prof. Elena Fendu Room: AP9	Section: Environmental Protection Chairman: Prof. Dorin Stănică-Ezeanu Prof. Dorin Bomboș Secretary: Assist.prof. Dănuța Matei Room: IP3	Section: Fuels and Alternative Fuels & Lubricating Oils Chairman: Prof. Paul Roșca Prof. Diana Cursaru Secretary: Assist.prof. Ana-Maria Manta Room: IP4	Section: Students scientific communications Chairman: Assoc.prof. Mihaela Neagu Assoc.prof. Liana Bogatu Secretary: Assist.prof. Simona Radu Room: IP6
09:00 – 09:15	Studies on propylene glycols. Phase equilibria and solvent properties Nicolae Marilena ^a , Fendu Elena-Mirela ^a , Oprea Florin ^a Petroleum-Gas University of Ploiesti, Romania	Considerations on the investigations necessary for assessing the damage in soils polluted with hydrocarbons Bărbulescu Andronela ^a , Gligor Alina ^b , Deac Cristian ^b , Petrescu Valentin ^b ^a CONPET SA Ploiești,	Effectiveness of various amines on oxidation stability of palm oil biodiesel Msheik Malek ^a , Cursaru Diana ^b , Nassreddine Salim ^a , Mihai Sonia ^b ^a Lebanese University, Lebanon	Elaborarea unui program de monitorizare a performanțelor cuptoarelor tubulare din instalația DAV și CX în vederea stabilirii cât mai exacte a necesității și datei pentru decocare. Ștefan Alexandra ^a



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		Romania ^b Lucian Blaga University of Sibiu	^b Petroleum-Gas University of Ploiești, Romania	^a Universitatea Petrol-Gaze din Ploiești, Romania
09:15 – 09:30	Prediction method of the turbine oils life-time Bogatu Liana ^a , Doicin Bogdan ^a , Onuțu Ion ^a ^a Petroleum-Gas University of Ploiești, Romania	Aspects of remediating the damage caused in soils polluted with hydrocarbons Deac Cristian ^b , Bărbulescu Andronela ^a ^a CONPET SA Ploiești, Romania ^b Lucian Blaga University of Sibiu	Biodiesel production: ultrasound blending vs. mechanical stirring Șandru Ștefan ^{a*} , Onuțu Ion ^a ^a Petroleum-Gas University of Ploiești, Romania	Producerea de hidrocarburi aromatice în Rafinăria Petrobrazi. Soluții tehnice de îndepărtare a olefinelor din extractul aromatic. Stanciu Mădălina ^a ^a Universitatea Petrol-Gaze din Ploiești, Romania
09:30 – 09:45	Influence of the thermal conductivity change of the tubular material on the performance of an industrial furnace Popa Maria ^a , Negoită Loredana Irena ^a ^a Petroleum-Gas University of Ploiești, Romania	The waste characterization for a spent Adsorbent Used for hydrogen sulfide removal from natural gas Petrache Mihai-Ștefan ^a ^a Petroleum-Gas University of Ploiești, Romania	Comparison study between the water tolerance in oxygenated gasoline with ethanol and butanol alcohols Neagu Mihaela ^a ^a Petroleum-Gas University of Ploiești, Romania	Compararea pierderilor la calcinare într-un cuptor tehnologic și un incinerator. Lăcătuș Larisa ^a ^a Universitatea Petrol-Gaze din Ploiești, Romania
09:45 – 10:00	An evaluation by modelling and simulation of the	Mathematical modelling of adsorption of crude oil	Obtaining biojet from hydroconversion of	Studiu de miscibilitate a combustibililor



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	<p>technologies for ethanol conversion to butadiene Broșteanu Alma Valentina^a, Banu Ionuț^a, Bozga Grigore^a ^aPolitehnica University of Bucharest</p>	<p>using biosorbents in accidental oil spills Ciufu Alina-Georgiana^a Chiș Timur Vasile^b ^aPolitehnica University of Bucharest ^b“Ovidius” University of Constanta</p>	<p>camelina oil mixed with straight run gas oil Dragomir Raluca Elena^{a*}, Roșca Paul^a, Țepeluș Alexandru^a ^aPetroleum-Gas University of Ploiești, Romania</p>	<p>reformulați în amestecuri ternare Oprea Alexandra Georgiana^a ^aUniversitatea Petrol-Gaze din Ploiești, România</p>
10:00 – 10:15	<p>Upgrading FCC light cycle oil Dragomir Raluca Elena^a, Roșca Paul^a, Borcea Anca^a ^aPetroleum-Gas University of Ploiești, Romania</p>	<p>ECOLIB, library of National R&D Institute for Industrial Ecology, first Romanian Repository in the environmental topics area Vasile Gabriela Geanina^a, Popescu Ionuț Radu^b, Stoica Cătălina^a, Tiron Olga^a, Kim Lidia^a, Gheorghe Stefania^a ^aNational Research and Development Institute for Industrial Ecology ^bMBM Software, Romania</p>	<p>Reducing the environmental impact of bioenergy production - sustainability criteria based on KZR INiG System Wojciech Mazela^a, Rogowska Delfina^a ^aOil and Gas Institute – National Research Institute, Poland</p>	<p>Conversia termică – Metodă de valorificare a biomasei lignocelulozice ^aBogasiu Cristina Andreea ^aUniversitatea Petrol-Gaze din Ploiești</p>



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10:15 – 10:30	<p>Preliminary studies on dehydration and desalination of heavy oils Băiceanu Raluca Roberta^a, Onuțu Ion^a Petroleum-Gas University of Ploiești, Romania</p>	<p>Stability of zinc oxide samples prepared with sol gel method in supercritical water Ayten Ates^a ^aCumhuriyet University, Department of Chemical Engineering, Sivas, Turkey</p>	<p>Catalytic hydroprocessing of light cycle oil - vegetable oil mixture for biofuels production Khoury Nivine^a, Nassreddine Salim^a, Riachi Bassam^a, Cursaru Diana^b, Jugănaru Traian^b ^aLebanese University, Lebanon ^bPetroleum-Gas University of Ploiești, Romania</p>	<p>Studiu privind îmbunătățirea calității extractului aromatic din complexul de Reformare Catalitică Stanciu Mădălina^a ^aUniversitatea Petrol-Gaze din Ploiești, România</p>
10:30 – 11:00	Coffee Break			
11:00 – 11:15	<p>Fluid Catalytic Cracking Unit adaptation for cracking residues Radu Simona^a, Budeanu Maria Magdalena^a, Dumitrescu Vasile^a, Cameniță Alexandru^a ^aPetroleum-Gas University of Ploiești, Romania</p>	<p>Effects of modifications of natural zeolites upon removal of manganese from aqueous solutions Ayten Ates^a ^aCumhuriyet University, Department of Chemical Engineering, Sivas, Turkey</p>	<p>Study of thiophenes hydrodesulfurization on Co-Mo-Re Catalysts Doukeh Rami^{a,b}, Bomboș Mihaela^b, Vasilievici Gabriel^b, Bolocan Ion^a, ^aPetroleum-Gas University of Ploiești, Romania ^bNational Institute for</p>	<p>Depoluarea electrocinetică a solurilor poluate cu produse petroliere lichide Arnăutu Bogdan^a ^aUniversitatea Petrol-Gaze din Ploiești, România</p>



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			Research Development for Chemistry and Petrochemistry- ICECHIM-Bucharest, Romania	
11:15 – 11:30	<p>The necessity for heating of petroleum products in a Storage tank and transport pipelines Negoiță Loredana Irena^a, Popa Maria^a ^aPetroleum-Gas University of Ploiești, Romania</p>	<p>Waste PET recycling. glycolysis vs. hydrolysis Stănică-Ezeanu Dorin^a, Matei Dănuța^a ^aPetroleum-Gas University of Ploiești, Romania</p>	<p>Kinetic study of thiophene hydrodesulfurization on Co-Mo/ γ-Al₂O₃ Doukeh Rami^{a,b}, Bomboș Mihaela^b, Bolocan Ion^a, ^aPetroleum-Gas University of Ploiești, Romania ^bNational Institute for Research Development for Chemistry and Petrochemistry- ICECHIM-Bucharest, Romania</p>	<p>Posibilitatea de valorificare a deșeurilor de cauciuc Dinu Carmen Gabriela^a, Dobre Laura Georgiana^a, Lăcătuș Larisa Elena^a ^aUniversitatea Petrol-Gaze din Ploiești, România</p>
11:30 – 11:45	<p>Doping TiO₂ rutile with RuO₂ nanocrystals to enhance visible light activated photocatalytic activity Mihai Sonia^a, Cursaru Diana^a, Manta Ana-Maria^a, Bondarev</p>	<p>Risk assessment of contaminated land with petroleum compounds Tita Mihaela^a, Onuțu Ion^a, Dumitran Cristiana^b ^a Petroleum-Gas University of Ploiești, Romania</p>	<p>Tribological evaluation of lubrication systems specific for gear boxes Rădulescu Irina^a Rădulescu Alexandru Valentin^a ^aPolitehnica University of</p>	<p>Studii privind creșterea gradului de epurare în treapta fizico-chimică Chiriță Mădălina^a, Iordache Ioana Andreea^a, Popa Adelina Elena^a, Piscan Elena Lavinia^a</p>

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	Andreea ^a ^a Petroleum-Gas University of Ploiești, Romania	^b SCAevum Eco Consult SRL Ploiești, Romania	Bucharest, Romania	^a Universitatea Petrol-Gaze din Ploiești, România
11:45 – 12:00	Emulsion stability versus emulsifying agent Dușescu-Vasile Cristina ^a , Popovici Daniela ^a ^a Petroleum-Gas University of Ploiești, Romania	Removal of pollutants from waste water resulted from biodiesel production by means of catalytic oxidation in suspension Jugănaru Traian ^a , Movileanu Daniela Luminița ^a ^a Petroleum-Gas University of Ploiești, Romania	Improvement of antiwear properties by coating the steel surfaces and by lubricant additivation Giagkas Nikolaos ^a , Ibrahim Ramadan ^a , Cursaru Diana ^a , Vizireanu Sorin ^b ^a Petroleum-Gas University of Ploiești, Romania ^b National Institute for Laser, Plasma and Radiation Physics, Romania	Majorarea randamentului de produse lichide într-o instalație de cocsare întârziată Etem Ilker Selim ^a ^a Universitatea Petrol-Gaze din Ploiești, România
12:00 – 12:15	Scaling Relationships in Digital Control Systems Paraschiv Nicolae ^a , Pricop Emil ^a ^a Petroleum-Gas University of Ploiești, Romania	Study on the treatment of sludge contaminated from refinery with microorganisms Panaitescu Cașen ^a , Boiu-Sicua Oana-Alina ^b , Popa Daria Gabriela ^b , Bălănescu Ioan ^c	Study of the additivation susceptibility of vegetable oils Bogatu Liana ^a , ^a Petroleum-Gas University of Ploiești, Romania	Criterii de selecție a uleiurilor de bază în scopul obținerii lubrifianților superiori Postelnicu Mihai Ion ^a ^a Universitatea Petrol-Gaze din Ploiești, România



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		^a Petroleum-Gas University of Ploiești, Romania ^b Romania Research and Development Institute for Plant Protection, Bucharest, Romania ^c S.C. Echipa Horse SRL		
12:15 – 12:30	Aspects of modeling and simulation of a distillation column with heat pump OlteanuMarius ^a , Cao Minh Anh ^a ^a Petroleum-Gas University of Ploiești, Romania	Biosorption - a green approach for heavy metal removal from water Bondarev Andreea ^a , Gheorghe Cătălina-Gabriela ^a , Mihai Sonia ^a , Călin Cătălina ^a ^a Petroleum-Gas University of Ploiești, Romania		Posibilitatea valorificării deșeurilor industriale din rafinăriile românești Manole Daniela-Andreea ^a , Tătaru Florin ^a ^a Universitatea Petrol-Gaze din Ploiești, România
12.30 – 13.30	Lunch AP9 Hall			
13:30 – 13:45	Hydroconversion of triglycerides on a Ru-based catalyst Cristea Steliana ^a , Bomboș Mihaela ^b , Oprescu Emilia ^{a,b} , Bolocan Ion ^a	A survey of groundwater nitrate contamination resulted by research of domestic wells from Romania Călin Cătălina ^a , Madjar		Biocombustibilii–component pentru kerosen Tănase George ^a , ^a Universitatea Petrol-Gaze din Ploiești, România,



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	^a Petroleum-GasUniversity of Ploiești, Romania ^b National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM- Bucharest, Romania	Roxana Maria ^b , Scățețeanu Gina Vasile ^b ^a Petroleum-Gas University of Ploiești, Romania ^b University of Agronomic Sciences and Veterinary Medicine Bucharest, Romania		
13:45 – 14:00	Desulphurization by reactive adsorption on copper-bentonite adsorbent Doukeh Rami ^{a,b} , Ion Constantin Sorin ^a , Bomboș Mihaela ^b , Bălănescu Ioan ^c ^a Petroleum-GasUniversity of Ploiești, Romania ^b National Institute for Research Development for Chemistry and Petrochemistry- ICECHIM- Bucharest, Romania ^c S.C.Echipa Horse SRL			Efectul promotorilor asupra capacității de absorbție a dioxidului de carbon în soluții apoase de carbonat de potasiu Matei Denisa Ioana ^a ^a Universitatea Petrol-Gaze din Ploiești, Romania
14:00 – 14:15	Comparative study of			Efectul promotorilor



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	<p>glycerol esterification in homogeneous and heterogeneous catalysis Bomboș Dorin^a, Doukeh Rami^{a,b}, Bomboș Mihaela^b, Bălănescu Ioan^c ^aPetroleum-Gas University of Ploiești, Romania ^bNational Institute for Research Development for Chemistry and Petrochemistry- ICECHIM-Bucharest, Romania ^cSCEchipa Horse SRL</p>			<p>asupra proprietăților fizico-chimice ale soluțiilor de carbonat de potasiu utilizate la absorbția dioxidului de carbon Pavel Veronica Iuliana^a ^aUniversitatea Petrol-Gaze din Ploiești, Romania</p>
14:15 – 14:30	<p>Densities and viscosities of the binary system of diethylene glycol monoethyl ether with monoethanol amine Budeanu Maria Magdalena^a, Dumitrescu Vasile^a, Radu Simona^a, Cameniță Alexandru^a</p>			<p>Conversia termochimică a biomasei în produse cu valoare adăugată ^aPravăț Ioana, ^aUniversitatea Petrol-Gaze din Ploiești, România</p>

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	^a Petroleum-Gas University of Ploiești, Romania			
14:30 – 14:45	<p>Decyl alcohol hydrogenolysis on wolfram-molybdenum-cooper catalyst Marinescu Mihai^a Doukeh Rami^{a,b}, Bomboș Mihaela^b, Bolocan Ion^a, ^aPetroleum-Gas University of Ploiești, Romania ^bNational Institute for Research Development for Chemistry and Petrochemistry-ICECHIM, Bucharest, Romania</p>			<p>Studiul influenței biodieselului asupra comportării combustibililor diesel, în perspectiva următoarelor reglementări UE Munteanu Raluca^a, Bogatu Liana^a ^aUniversitatea Petrol-Gaze din Ploiești, România</p>
14:45 – 15:00	<p>Isolated and simultaneous chemical equilibria in <i>n</i>-butane dehydrogenation to butenes Filotti Liviu^a ^aPetroleum-Gas University of</p>			

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	Ploiești, Romania			
15:00 – 15:15	Coffee Break			
15:15 – 15:30	Modelling the plug flow reactor for propane steam cracking Filotti Liviu ^a , Mitroi Sebastian ^a ^a Petroleum-Gas University of Ploiești, Romania			
15:30 – 15:45	Control system for biomass heater Pătrășcioiu Cristian ^a ^a Petroleum-Gas University of Ploiești, Romania			
15:45 – 16:00	Real-time stock analysis for blending recipes in industrial plants Zamfir Florin Ștefan ^a ^a Petroleum-Gas University of Ploiești, Romania			
16.00 – 16.15	Honeypots - a solution for assessing the interest of attackers on industrial			



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<p>control systems Pricop Emil^a, Paraschiv Nicolae^a, Ionescu Octavian^b, Nitul Dutta^c ^aPetroleum-Gas University of Ploiești, Romania ^bNational Institute for Research and Development in Micro-technologies, Bucharest, Romania ^c Computer Engineering Department, Marwadi University, Rajkot, India</p>			
<p>Heat transfer performance of different tubular heat exchangers Rădulescu Sînziana^{a)}, Negoiță Loredana Irena^{a)} ^{a)}Petroleum-Gas-University of Ploiești, Romania</p>			