



International Congress
on Combustion Engines

PTNSS KONGRES – 2007

THE DEVELOPMENT OF COMBUSTION ENGINES

May 20th–23rd, 2007
Kraków
Poland

FINAL PROGRAMME

**POLISH SCIENTIFIC SOCIETY
OF COMBUSTION ENGINES**

43-300 Bielsko-Biała, ul. Sarni Stok 93, POLAND

CONGRESS SCHEDULE

TIME	SUDANY 20.05	TIME	MONDAY 21.05	TIME	TUESDAY 22.05	TIME	WEDNESDAY 23.05			
		7.30-9.00	Breakfast Congress Centrum	7.30-9.00	Breakfast Congress Centrum	7.30-9.00	Breakfast Congress Centrum			
		9.00-9.30	Opening Ceremony	9.00-10.30	Panel Discussions	9.00-10.40	Technical Sessions IV			
		9.30-9.45	BREAK				D2	C3	F2	
		9.45-11.45	Plenary Session I	10.30-11.00	Coffee Break	10.40-11.00	Coffee Break			
		11.45-12.15	Coffee Break	11.00-12.40	Technical Sessions II			Plenary Session III		
		12.15-14.15	Plenary Session II		B2	C1	D1			
				12.40-12.50	BREAK			BREAK		
14.00-19.00	Registration Start Hotel "Witek" Modlniczka 124 KRAKOW	14.15-16.00	LUNCH Congress Centrum	12.50-14.30	Technical Sessions III			Congress Closing Ceremony		
		16.00-18.00	Technical Sessions I A1 B1	14.30-16.00	E1	C2	F1			
		18.00-19.00	BREAK	16.00-17.00	Poster Session I			Departure Congress Participants		
		19.00-19.30	Departure to Aviation Museum	17.00-17.15	BREAK					
19.00-21.00	Supper Congress Centrum			17.15-18.15	Poster Session II					
				18.15-19.30	BREAK					
		19.30-23.00	Gala Dinner	19.30-23.00	Barbecue					

Technical Sessions Legend:

A1, – Modelling

B1, B2 – Combustion process

C1, C2, C3 – Development/Research

D1, D2 – Emission

E1 – Alternative fuels

F1, F2 – Engine testing

SESSIONS SCHEDULE

Monday – 21th May 2007

9.00 - 9.30	Opening Ceremony	Congress Room
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9.45 - 11.45	Plenary Session I Automotive/ Engine Technology Development	Congress Room
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Chairman: Prof. Miroslaw WYSZYNSKI, UK; Prof. Jerzy Merkisz, Poland

Giovanni CIPOLLA <i>General Motors Powertrain Europe, Italy</i>	P07-C134 DIESEL PERSPECTIVE IN GLOBAL MARKET VISION
Marek SUTKOWSKI*	P07-C015 THE 20V34SG – A HIGH-EFFICIENCY LEAN-BURN GAS ENGINE FOR HIGHLY EFFICIENT WÄRTSILÄ GAS POWER PLANTS
Toni LATVASALO <i>Waertsila Finland Oy, Finland</i>	
Roberto PEIRANO*	P07-C135 SYNERGIC COMPUTATIONAL AND EXPERIMENTAL DEVELOPMENT OF A CAST IRON CRANKSHAFT FOR HIGH PERFORMANCE AUTOMOTIVE DIESEL ENGINE
Stefano BARBATO	
Gianfranco CERONETTI	
Alessandro DI FRANCO	
Roberto GOLISANO	
Alberto VASSALLO <i>General Motors Powertrain Europe, Italy</i>	
Gotthard RAINER*	P07-C141 RECENT ADVANCES IN IC-ENGINE COMBUSTION MODELING
Reinhard TATSCHL <i>AVL List GmbH, Austria</i>	

11.45 - 12.15	Coffee Break
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12.15 - 14.15	Plenary Session II Emission/Alternative Fuel	Congress Room
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Chairman: Prof. Giovanni CIPOLLA, Italy; Prof. Piotr WOLANSKI, Poland

Manfred LINKE <i>AVL List GmbH, Austria</i>	P07-C142 PARTICULATE AND SOOT MEASUREMENT IN VIEW TO EURO V
Wolfgang SINGER	
Hermann ECKER <i>FEV Motorentechnik GmbH, Germany</i>	P07-C020 SINGLE CYLINDER TEST ENGINES-VALUABLE TOOLS IN RESEARCH AND DEVELOPMENT
Simona MEROLA¹*	P07-C075 EFFECT OF EGR ON NANOPARTICLES AT COMMON-RAIL DIESEL ENGINES EXHAUST
Cinzia TORNATORE²	
Bianca VAGLIECO¹ ¹⁻ <i>Instituto Motori-CNR,</i>	
²⁻ <i>Department of Chemical Engineering – University of Naples Federico II, Italy</i>	
Andrzej KOWALEWICZ	P07-C103 SYNTHETIC FUELS AND THEIR APPLICATION TO INTERNAL COMBUSTION ENGINES
Malgorzata WOJTYNIAK <i>Technical University of Radom, Poland</i>	

16.00 - 18.00	Technical Sessions I
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A1 - Modelling	Congress Room
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Chairman: Prof. Jan CZERWINSKI, Switzerland; Prof. Andrzej KOWALEWICZ, Poland

Hirsch, Alois Rzechorska, Martin Winklhofer, Ernst* <i>AVL List GMBH - Austria</i>	P07-C143 FLAME AND RADIATION MEASUREMENT TECHNIQUES FOR DYNAMIC EMISSION CALIBRATION IN GASOLINE ENGINES
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Sazhin, Sergei^{1*}
 Martynov, Sergey¹
 Kristyadi, Tarsisius¹
 Crua, Cyril¹
 Heikal, Morgan¹

¹ School of Engineering, Faculty of Science and Engineering, University of Brighton, UK

Šika, Z.*,
 Valášek, M.,
 Florián, M.,
 Macek, J.
 Polášek, M.,
 Doleček, V.

Czech Technical University in Prague, Faculty of Mechanical Engineering Josef Bozek Research Center of Engine and Automotive Engineering, Czech Republic

Shahangian, Seyed Navid¹

Jazayeri, Seyed Ali^{1*}

Bagheri, Nader²

¹ Khaje Nasir Toosi University of Technology, Iran,

² Califotnia Maritime Academy. USA

K. Karimi¹

C. Crua¹

M R. Heikal¹

E M. Sazhina^{1*}

¹ ICEG, School of Engineering, University of Brighton, Brighton UK

Pešić Radivoje¹

Hnatko Emil²

Golec Kazimir^{3*}

Stanojević Milun⁴

Veinović Stevan⁴

¹ Faculty of Mechanical Engineering, University of Kragujevac, Serbia,

² Faculty of Mechanical Engineering from Slavonski Brod, Croatia,

³ Technical University of Krakow, Poland,

⁴ Company for manufacturing, trading and ex-im services, "Znam Co", Belgrade, Serbia

P07-C147

MODELS FOR DROPLET HEATING AND EVAPORATION: APPLICATION TO SIMULATION OF THE AUTOIGNITION PROCESS IN DIESEL ENGINES

P07-C137

TRANSIENT ENGINE MODELS FOR OPTIMIZATION AND IMPLEMENTATION OF MODEL PREDICTIVE CONTROL

P07-C024

A THERMO KINETIC MODEL FOR PERFORMANCE PREDICTION OF THE HOMOGENOUS CHARGE COMPRESSION IGNITION ENGINE FUELED WITH DIMETHYL ETHER

P07-C165

SPLIT INJECTION STRATEGY FOR DIESEL SPRAYS: EXPERIMENT AND MODELLING

P05-C079

THERMODYNAMIC AND CONSTRUCTION MEASURES FOR RADICAL REDUCTION OF FUEL CONSUMPTION IN IC ENGINES

B1 – Combustion Process

Conference Room

Chairman: Prof. Andrzej SOBIESIAK, Canada; Prof. Mirosław WENDEKER, Poland

Dariesz KLIMKIEWICZ

Andrzej TEODORCZYK

Warsaw University of Technology, Poland

Wladyslaw MITIANIEC

Krakow University of Technology, Poland

Karol CUPIAL

Marcin SOSNOWSKI

Arkadiusz JAMROZIK

Arkadiusz KOCISZEWSKI

Wojciech TUTAK

Institute of Internal Combustion Engines and Control Engineering, Czestochowa University of Technology, Poland

Andrzej GORCZAKOWSKI

Jozef JAROSINSKI*

Jerzy PODFILIPSKI

Technical University of Lodz, Poland

P07-C088

COMBUSTION OF LEAN MIXTURE IN SI ENGINE WITH DIRECT INJECTION CNG SYSTEM

P07-C068

THE IGNITION PROBLEMS OF THE STRATIFIED CHARGE IN SI ENGINES WITH THE CNG DIRECT INJECTION

P07-C089

FLAME KERNEL FORMATION AROUND A SPARK PLUG OF SI ENGINE USING KIVA-3V WITH STANDARD AND NEWLY DEVELOPED IGNITION MODEL

P07-C108

TURBULENT COMBUSTION OF LEAN MIXTURE IN SPARK IGNITION ENGINE

Zdzislaw STELMASIAK
 Jerzy LARISCH*
 Tomasz GILOWSKI
 Marcin MATYJASIK
Technical University of Bielsko-Biala, Poland
 Michal CZARNECKI
 Marek ORKISZ
Technikal University of Rzeszow, Poland

P07-C004
**THE OPTIMIZATION OF COMBUSTION PROCESS IN A
 DUAL FUEL ENGINE WITH COMMON RAIL AND GAS
 INJECTION SYSTEMS**
 P07-C164
**TURBOJET PERFORMANCE WITH EXHAUST GAS
 TEMPERATURE CONTROL UNIT**

Tuesday – 22th May 2007

9.00 - 10.30 Panel Discussion Congress Room
Future Engines for Future Fuels

Moderator: Prof. Miroslaw WYSZYNSKI, UK

Giovanni CIPOLLA	Director GM Center Torino, Italy
Roger CRACKNELL	Shell Global Solution, Chester, United Kingdom
Peter GILLBRAND	Managing Director, AVL MTC Motortestcenter AB, Sweden
Anrzej KULCZYCKI	Managing Director, Institute of Fuel and Renevable Energy, Warsaw, Poland
Richard J. PEARSON	Lotus Engineering, United Kingdom
Jun QIAO	Jaguar Land Rover Research, Coventry, United Kingdom

10.30 - 11.00 Coffee Break

11.00 - 12.40 Technical Sessions II

B2 – Combustion process Congress Room

Chairman: Dr. Roberto PEIRANO, Italy; Prof. Andrzej TEODORCZYK, Poland

Ganaprakash GNANAM	P07-C050
Dale HAGGITH	HCCI COMBUSTION OF ETHANOL, ISO-OCTANE AND THEIR BLEND WITH EGR
Andrzej SOBIESIAK*	
Graham READER	
<i>Department of Mechanical, Automotive and Materials Engineering, University of Windsor, Canada</i>	
Arkadiusz OPALINSKI	P07-C067
Robin VANHAELST	ANALYSIS OF LATE PARTIAL HOMOGENISATION IN A TURBOCHARGED DIESEL ENGINE
Michale WILLMANN	
<i>Volkswagen AG, Germany</i>	
Thomas BERG¹⁾	P07-C090
Volker BEUSHAUSEN²⁾	FIBER OPTICS SPARK PLUG SENSOR FOR MEASUREMENT OF FUEL AND EXHAUST GAS DENSITY
Joachim DEPPE¹⁾	
Olaf THIELE¹⁾	
Heinrich VOGES¹⁾	
<i>1) LaVision GmbH Göttingen</i>	
<i>2) Laser Laboratorium Göttingen e.V.</i>	
Jan CZERWINSKI^{1)*}	P07-C019
Yan ZIMMERLI¹⁾	INFLUENCES OF ALTERNATIVE FUELS GTL, RME & ROR ON COMBUSTION AND EMISSIONS OF A MODERN HD-DIESEL ENGINE
Tobiasz NEUBERT¹⁾	
Armin HEITZER²⁾	
Markus KASPER³⁾	
<i>1- University of Applied Sciences, Biel- Bienne, Switzerland</i>	
<i>2- Erdöl-Vereinigung, Zürich</i>	
<i>3- Matter Engineering AG, Wohlen</i>	

Marek BRZEZANSKI
Krakow University of Technology, Poland

P07-C104
THE USE OF COOLING SYSTEM HEAT TO DECREASE THE EXHAUST GAS EMISSION DURING START AND WARMING UP PHASE OF COMBUSTION ENGINE

C1 – Development/Research

Conference Room

Chairman: DI Herman ECKER, Germany; Prof. Marek ORKISZ, Poland

Piotr BOGUS^{1,2*}

Adam SIENICKI¹

Esteral WOJCIECHOWSKA¹

Jerzy MERKISZ^{1,3}

¹ *Rail Vehicle Institute TABOR, Poznań, Poland,*

² *Medical University of Gdańsk, Poland,*

³ *Technical University of Poznań, Poland*

Jerzy MERKISZ

Marek WALIGORSKI*

Miłosław KOZAK

Poznan University of Technology, Poland

Jerzy MERKISZ

Miłosław KOZAK

Maciej BAJERLEIN

Piotr LIJEWSKI

Poznan University of Technology, Poland

Jarosław MAMALA*

Jerzy JANTOS

Sebastian BROL

Opole University of Technology, Poland

Lukasz GRABOWSKI*

Miłosław WENDEKER

Jacek CZARNIGOWSKI

Arkadiusz MALEK

Piotr JAKLINSKI

Grzegorz BARANSKI

Rafał SOCHACZEWSKI

Lublin University of Technology, Poland

P07-C014

THE COMPARISON OF VIBROACOUSTIC SIGNALS TAKEN FROM AN ENGINE BEFORE AND AFTER REPAIR

P07-C022

MISFIRE EVENTS DETECTION IN COMPRESSION-IGNITION ENGINES BY THE USE OF VIBROACOUSTIC DIAGNOSTICS – APPLICATION OF OBD SYSTEM REQUIREMENTS IN NON-ROAD VEHICLES

P07-C026

THE RESEARCH ON ATOMIZATION OF OXYGENATED DIESEL FUELS

P07-C031

COMPENSATION OF MECHANICAL INERTIA IN CAR POWER TRANSMISSION SYSTEMS

P07-C148

TEST BED FOR PREHOMOLOGATION TEST OF VEHICLE FUELED BY LPG GAS SEQUENTIAL INJECTION

D1 – Emission

Seminar Room

Chairman: DI. Marek SUTKOWSKI, Finland; Prof. Zdzisław STELMASIAK, Poland

Jacek PIELECHA

Poznan University of Technology, Poland

Jerzy MERKISZ¹

Paweł FUC^{1*}

Piotr LIJEWSKI¹

Krzysztof WOJCIECHOWSKI²

¹ *Poznan University of Technology, Poland*

² *AGH University of Science and Technology, Krakow, Poland*

Andrzej ADAMKIEWICZ¹

Krzysztof KOLWZAN²

¹ *Szczecin NartimeAcademy, Poland*

² *Polish Ships Register, Szczecin, Poland*

Anna JANICKA

Wojciech WALKOWIAK

Wroclaw University of Technology, Poland

Lech SITNIK

Wroclaw University of Technology, Poland

P05-C023

ANALYSIS OF PARTICLE EMISSION AND SMOKE MEASUREMENTS IN STATIONARY CYCLES

P07-C034

REDUCING OF NITROGEN OXIDES EMISSIONS IN A COMBUSTION ENGINE BY CERAMIC OXYGEN CONDUCTORS AND THERMOELECTRIC MATERIALS

P07-C154

TECHNOLOGIES REDUCING EXHAUST GAS EMISSIONS FROM LARGE MARINE DIESEL ENGINES

P07-C158

THE EFFECT OF BIODIESEL ON PAH'S AND VOCS EMISSION FROM DIESEL ENGINE

P07-C169

NEURONAL NETWORK FOR FLEXIBLE PROCESS CONTROL IN DIESEL ENGINE

12.40 - 12.50 Break

12.50 - 14.30 Technical Sessions III

E1 – Alternative Fuel

Congress Room

Chairman: Dr. Gotthard RAINER, Austria; Prof. Cezary BOCHENSKI, Poland

J. JESILA¹

P07-C082

G. NAGARAJAN^{1*}DISTILLED TYRE PYROLYSIS OIL AS AN ALTERNATE
FUEL FOR CI ENGINES. MURUGAN²¹ Department of Mechanical Engineering,
Anna University, Chennai, India² Rajalakshmi Engineering College,
Chennai, India

Sukumar PUHAN

P07-C084

R. JEGAN

PERFORMANCE, EMISSION AND COMBUSTION
CHARACTERISTICS OF HIGH LINOLENIC LINSEED OIL
METHYL ESTER IN A D I DIESEL ENGINE

K. BALASUBBRAMANIAN

G. NAGARAJAN*

Internal Combustion Engineering Division,
Faculty of Mechanical Engineering, College
of Engineering Guindy, Anna University,
India

N. SARAVANAN*

P07-C094

G. NAGARAJAN

PERFORMANCE AND EMISSION CHARACTERISTICS OF
HYDROGEN – DIESEL DUAL FUELLED ENGINE USING
PORT INJECTION

C. DHANASEKARAN

K.M. KALAISELVAN

College of Engineering, Anna University,
India

Vladimir HLAVNA

P07-C035

Dusan SOJCAK*

HEAT TRANSFER THROUGH THE CYLINDER WALL
CONSIDERING RADIATION

University of Zilina, Slovakia

Jerzy DUTCZAK

P07-C106

Tadeusz PAPUGA

EFFECT OF COMPOSITION OF PROPANE-BUTANE
MIXTURE ON REGULATION PARAMETERS OF SI
ENGINE FUEL SUPPLY SYSTEM

Krakow University of technology, Poland

C2 – Development/Research

Conference Room

Chairman: Dr. Ernst WINKLHOFER, Austria; Prof. Kazimierz LEJDA, Poland

Jan CZERWINSKI¹

P07-C018

Pierze COMTE¹EC/OC ANALYSIS OF PARTICLES FROM 2-S SCOOTERS
AND POTENTIALS OF IMPROVED AFTERTREATMENTCavadonga ASTORGA²Maria REY²Felix REUTIMANN³Andreas MEYER⁴¹ University of Applied Sciences, Biel-Bienne,
Switzerland² EC Joint Research Center, Ispra, Italy (EC
DG-JRC)³ Federal Office of Environment (BAFU),
Berne, Switzerland⁴ Technik Thermische Maschinen,
Niederrohrdorf, Switzerland (TTM)Arkadiusz MALEK^{1*}

P07-C029

Miroslaw WENDEKER¹ANALYSIS OF THE AIRFLOW CONTROL OF PEM FUEL
CELL SYSTEMRodolfo TACCANI²¹ Lublin University of Technology, Poland² University of Trieste, Italy

Slawomir LUFT

P07-C171

Radom University of Technology, Poland

DUAL-FUEL COMPRESSION IGNITION ENGINE
FUELLED WITH LPG IN THE LIQUID PHASE

Jacek HUNICZ
Lublin University of Technology, Poland

P07-C166
EXPERIMENTAL RESEARCH OF FLAME KERNEL DEVELOPMENT IN SPARK IGNITION ENGINE

Andrzej SUCHETA
Technical University of Bielsko-Biala, Poland

P07-C168
COMPUTATION OF EQUILIBRIUM COMPOSITION IN COMBUSTION PRODUCTS

F1 - Engine Testing

Seminar Room

Chairman: Dr. Simona MEROLA, Italy; Prof. Krzysztof WISLOCKI, Poland

Wojciech SERDECKI
Piotr KRZYMIEN
Łukasz BRZEZINSKI
Poznan University of Technology, Poland
Andrzej WOLFF
Warsaw University of technology, Poland

P07-C032
ANALYSIS OF POSSIBILITIES OF FRICTION LOSSES DETERMINATION IN ENGINE CRANK MECHANISM

P07-C041
NUMERICAL SIMULATION OF PISTON RING PACK OPERATION WITH REGARD TO BLOWBY, LUBRICATION AND RING TWIST EFFECTS

Jerzy PRYWER¹
Tadeusz OPARA²
Karol OPARA
¹ *Technical University of Lodz, Poland*
² *Radom University of Technology*
³ *Warsaw University of Technology, Poland*

P07-C059
DROP SIZE DISTRIBUTION IN THE SPRAY CONE OF JET-SWIRL ATOMIZERS

Krzysztof BALAWENDER
Pawel WOS
Rzeszow University of Technology, Poland

P07-C073
STUDY OF PARTICULATE MATTER (PM) EMISSION FROM SINGLE-CYLINDER DIESEL ENGINE AT MULTI-SPLIT INJECTION

Andrzej KAZMIERCZAK
Czeslaw KOLANEK
Wroclaw University of Technology, Poland

P07-C157
ANALYTICAL DETERMINATION OF THE LOADS OF WET CYLINDER SLEEVE COLLAR OF DIESEL ENGINES

16.00 - 17.00 Poster Session I

Meeting Room

Chairman: Prof. Jacek NOWAKOWSKI, Poland

List of Papers see page 13

17.00 - 17.15 Coffee Break

16.00 - 17.00 Poster Session I

Meeting Room

Chairman: Prof. Jacek NOWAKOWSKI, Poland

List of Papers see page 13

Wenesday – 23th May 2007

9.00 - 10.40 Technical Sessions IV

D2 - Emission

Congress Room

Chairman: Prof. Andrzej NIEWCZAS, Poland; Prof. Karol CUIPIAŁ, Poland

Zdzislaw CHLOPEK
Warsaw University of Technology, Poland

P07-C064
POLLUTANTS EMISSION TESTS OF THE COMPRESSION IGNITION ENGINE POWERED BY ETHANOL FUEL E95

Stanislaw KRUCZYNSKI
Wiktor DANILCZYK
Wojciech KAMELA
Warsaw University of Technology, Poland

P07-C044
ESTIMATION OF TEMPERATURE AND WORK CYCLE INFLUENCE ON CHOSEN LEAN NITRIC OXIDES TRAPS CATALYTIC PROPERTIES

Kazimierz LEJDA
Artur JAWORSKI
Rzeszow University of Technology, Poland

P07-C072
**INFLUENCE OF SELECTED INJECTION PARAMETERS
 ON THE HYDROCARBONS EMISSION
 IN THE COMMON RAIL SYSTEM OF DIESEL ENGINE**

Kazimierz GOLEC
Michal MARECZEK
Tadeusz PAPUGA
Krakow University of Technology, Poland

P07-C107
**ENGINE FUELLED WITH PROPANE-BUTANE AND
 EQUIPPED WITH NOX STORING CATALYTIC
 CONVERTER – EFFICIENCY AND EMISSION OF
 EXHAUST GAS TOXIC COMPONENTS**

Antoni ISKRA
Poznan University of Technology, Poland

P07-C001
**APPLICATION OF DOUBLE INERTIA FLYING WHEELS
 FOR REDUCTION OF IDLE SPEED**

C3 - Development/Research

Conference Room

Chairman: Prof. Jerzy JANTOS, Poland; Prof. Jozef NITA, Poland

Zbigniew STEPIEN
Stanislaw OLEKSIK
*ITN - Institute of Petroleum Processing,
 Krakow, Poland*
Jan DZIDA
Technical University of Bielsko-Biala, Poland

P07-C042
**FUTURE DEVELOPMENT TRENDS OF HD DIESEL
 ENGINES**

Grzegorz KOSZALKA*
Andrzej NIEWCZAS
Lublin University of Technology, Poland

P07-C109
**THE ANALYSIS OF COMBUSTION ENGINE AND SPRING
 -LOADED ACCUMULATOR'S COOPERATION IN HYBRID
 DRIVE SYSTEM OF VEHICLE**

Cezary BOCHENSKI
Warsaw Agricultural Academy, Poland

P07-C173
**EXPERIMENTAL RESEARCH OF THE INFLUENCE OF
 THE SECOND COMPRESSION RING RADIAL
 CLEARANCE ON THE BLOWBY AND OIL
 CONSUMPTION IN A DIESEL ENGINE**

Andrzej AMBROZIK
Dariusz KURCZYNSKI
Kielce University of Technology, Poland

P07-C170
**THE USED OF RME AS A FUEL OF COMPRESSION
 IGNITRON ENGINES**

P07-C056
**THE EFFECT OF MINERAL FUELS, BIOFUELS AND
 THEIR BLENDS ON OPERATION PARAMETERS IN SELF-
 IGNITION ENGINE**

F2 - Engine Testing

Seminar Room

Chairman: Prof. Leszek PIASECZNY, Poland; Prof. Lech SITNIK, Poland

Andrzej FELSKI
*Institute of Navigation and Maritime
 Hydrography Polish Naval Academy, Gdynia,
 Poland*

P07-C127
**POSSIBILITY OF MONITORING OF THE OBJECTS'
 MOVEMENT IN DYNAMIC INVESTIGATION OF THEIR
 PROPULSION SCHEMES.**

Maciej ZIOLKOWSKI
Andrzej BALCERSKI
Gdansk University of Technology, Poland

P07-C125
**INVESTIGATIONS OF DEPENDENCES BETWEEN THE
 AVERAGE LOADS OF MAIN ENGINES AND THE
 NOMINAL TOWROPE HORSEPOWER OF CARGO SHIPS**

Malgorzata PAWLAK
Leszek PIASECZNY
Polish Naval Academy, Gdynia, Poland

P07-C119
**EVALUATION OF SUITABILITY OF EXISTING
 HARMFUL COMPOUNDS DISPERSION MODELS FOR
 ASSESSMENT OF LAND POLLUTION WITH MARINE
 ENGINES' EXHAUST GASES**

Kazimierz ROMANISZYN
Technical University of Bielsko-Biala, Poland

P07-C002
**EMISSION OF CAR FUMES COMPONENTS IN DYNAMIC
 CONDITIONS FOR FUELLING THE ENGINE WITH
 PETROL AND CNG (NATURAL GAS)**

Grzegorz BARANSKI*
Miroslaw WENDEKER
Jacek CZARNIGOWSKI
Piotr JAKLINSKI
Konrad PIETRYKOWSKI
Lukasz GRABOWSKI
Michal ROLA
Lublin University of Technology, Poland

P07-C163
**SIMULATION TEST OF MIXTURE FORMATION IN
 SEQUENTIAL CNG GAS INJECTION OF THE SI ENGINE**

10.40 - 11.00 Coffee Break

11.00 - 12.30 Plenary Session III Congress Room

Chairman: Prof. Marek BRZEZANSKI, Poland

Franz LENZ
Viena University of Technology, Austria

**THE 28th INTERNATIONAL VIENNA MOTOR
 SYMPOSIUM (26th – 27th APRIL 2007)**

12.45 - 13.30 Congress Closing Ceremony Congress Room

List of Papers of the Poster Session I

Krzysztof SICZEK
Technical University of Lodz, Poland

P07-C003
**THE OPERATIONAL CONDITIONS AND WEAR OF
 ELEMENTS IN SELFSTARTER OF NEW GENERATION
 FOR COMBUSTION ENGINE**

Zdzislaw STELMASIAK
Jan WENCELIS
Jerzy LARISCH
Technical University of Bielsko-Biala, Poland

P07-C005
**ANALYZE OF THE REASON OF A RING CRACK IN THE
 OIL COOLING SYSTEM OF THE PISTON HEAD IN A
 DUAL FUEL ENGINE FUELLED WITH MINE GAS**

Dariusz PIETRAS
Antoni SWIATEK
Piotr SWIATEK
Technical University of Bielsko-Biala, Poland

P07-C008
**ESTIMATION OF IMPACT FUEL DOSE COURSE ON
 CHOSEN WORK PARAMETERS AND EMISSION OF THE
 1.3 MULTIJET ENGINE.**

Zdzislaw STELMASIAK
Tomasz KNEFEL
Jerzy LARISCH
Technical University of Bielsko-Biala, Poland

P07-C009
**THE INFLUENCE OF THE TIME BREAK OF THE FUEL
 DIVIDED DOSE ON THE WORK PARAMETERS OF THE
 INJECTOR COMMON RAIL SYSTEM**

Tomasz KNEFEL
Technical University of Bielsko-Biala, Poland

P07-C010
**ELECTRONICALLY CONTROLLED INDICATOR OF
 INJECTION**

Zdzislaw CHLOPEK
Warsaw University of Technology, Poland

P07-C016
**AN EFFECTIVITY EVALUATION OF THE CRT
 PARTICULATE MATTER FILTER IN STATIC AND
 DYNAMIC ENGINE OPERATING CONDITIONS**

Ireneusz PIELECHA
Poznan University of Technology, Poland

P07-C021
**THE INFLUENCE OF THE FUELLING METHOD ON THE
 HCCI ENGINE OPERATING AND EMISSION
 PARAMETERS**

Jerzy MERKISZ
Wladyslaw KOZAK
Maciej BAJERLEIN*
Jaroslaw MARKOWSKI
Poznan University of Technology, Poland

P07-C025
**VERIFICATION OF THE CONCEPT OF INJECTING FUEL
 WITH EXHAUST GAS**

Jerzy MERKISZ
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P07-C027
**RESEARCH ON TOXIC COMPOUND EMISSION IN THE
 EXHAUST OF NON-ROAD VEHICLES**

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TRAVEL DETAILS

By Bus

Departure:

Bus from railway station (East side of railway station, near main bus station) to HOTEL WITEK

Odjazd: Kraków Muzeum Armii Krajowej (koło Dworca Autobusowego – wschodnia część dworca kolejowego)

Kraków > Modlniczka (Hotel WITEK),

Od poniedziałku do piątku oprócz świąt (Monday – Friday)

Kraków Muzeum Armii Krajowej	o	6:00	8:00	10:00	12:00	14:00	16:00	18:00	20:00
Kraków Nowy Kleparz		6:03	8:03	10:03	12:03	14:03	16:03	18:03	20:03
Kraków Czarnowiejska		6:06	8:06	10:06	12:06	14:06	16:06	18:06	20:06
Modlniczka Hotel Witek	p	6:18	8:18	10:18	12:18	14:18	16:18	18:18	20:18
Modlniczka Hotel Witek	o	6:50	9:50	12:50	15:50	18:50			
Kraków Czarnowiejska		7:02	10:02	12:02	16:02	19:02			
Kraków Nowy Kleparz		7:06	10:06	12:06	16:06	19:06			
Kraków Muzeum Armii Krajowej	p	7:09	10:09	12:09	16:09	19:09			

o – odjazd (departure), p - przyjazd (arrival)

Soboty, niedziele i święta (Saturday, Sunday)

Kraków Muzeum Armii Krajowej	o	7:30	10:30	13:30	16:30	19:30
Kraków Nowy Kleparz		7:33	10:33	13:33	16:33	19:33
Kraków Czarnowiejska		7:36	10:36	13:36	16:36	19:36
Modlniczka Hotel Witek	p	7:48	10:48	13:48	16:48	19:48
Modlniczka Hotel Witek	o	6:50	9:50	12:50	15:50	18:50
Kraków Czarnowiejska		7:02	10:02	12:02	16:02	19:02
Kraków Nowy Kleparz		7:06	10:06	12:06	16:06	19:06
Kraków Muzeum Armii Krajowej	p	7:09	10:09	12:09	16:09	19:09

o – odjazd (departure), p - przyjazd (arrival)

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departure from Zygmunt Augusta street (near bus station - east side of railway station) or from bus stop – west side of railway station (by shopping center Galeria Krakowska)

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Z dworca kolejowego – tramwaj numer 4 do końcowego przystanku w Bronowicach i z Bronowic autobusy miejskie: 238, 248, 258, 268, 278
From Railwaystation – Tram number 4 (direction BRONOWICE to the end station) and from Bronowice Bus number: 238, 248, 258, 268, 278

TAXI

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TRAVEL DETAILS

20 May 2007 (Sunday)

Trains from Warsaw to Krakow

Warsaw departure:	12:05	14.05	16:05	18.05	20:05
Krakow arrival:	14:50	16:50	18:50	20:50	22:50

23 May (Wednesday)

Krakow departure:	11:00	12.00	14:00	15.00	18:00
Warsaw arrival:	13:45	14:45	16:45	17:45	20:45

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