Seventh International Congress
on Catalysis and
Automotive Pollution Control

CAPoC7

Brussels, August 2006

Second Circular Programme

August 30 - September 1, 2006
Brussels, Belgium

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Registration

Participants should fill in the registration form in **CAPITAL LETTERS** and return it with payment to the symposium treasurer. A surcharge will be added to all registration sent later than August 1st (see registration form).

J-M. Bastin - Symposium Treasurer
Chimie Physique des Matériaux
CP 243 Campus de la Plaine - ULB
B-1050 Brussels - Belgium

The registration fee includes:

- Wednesday evening reception.
- morning and afternoon coffee breaks.
- lunch meals.
- book of preprints (which will be distributed at the beginning of the symposium).
- proceedings of the symposium, including the accepted oral and poster presentations.

The proceedings will appear as a volume of the journal "Topics in Catalysis".

- students may register at a reduced fee if at the same time a staff member of their laboratory is present at full fee. The student fee does not include the proceedings.
- **accompanying persons** not participating in the scientific sessions are **free of charge, but must register.**

Website of the conference

www.ulb.ac.be/sciences/cpmct/capoc7

Payment

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Hotel accommodation

is being handled by "**Resotel**". Rooms have been reserved in several hotels in the centre of Brussels.
Accommodation can only be guaranteed to those participants who have filled in the enclosed accommodation form and sent it directly to:

RESOTEL
122 av. de l'Atlantique
B-1150 Bruxelles - Belgique
Tel : 32 (0)2 779 39 39 - Fax : 32 (0)2 779 39 00
E-mail : natasha@resotel.be

Venue

The Congress will be held at the "Institut de Sociologie Solvay"
Av. Jeanne 44 - 1050 Brussels (on the University Campus "Solbosch")
There is frequent public transport service (bus 71, tram 93, 94) between campus and city centre. Large multilevel parking facilities are available next to the "Institut de Sociologie"
(see map ULB Campus Solbosch – last page of this booklet).

Arrival

The registration desk will be open on Tuesday August 29th, from 16h00 to 19h00, and during the congress starting on Wednesday August 30th at 8h00 a.m..

Language

Presentations, discussions and proceedings will be exclusively in English.

Social Programme

• **Wednesday, August 30th**
A reception will be held in the evening. It is **free of charge** for all registered participants and accompanying persons, however, **you have to register** (see registration form).

• **Thursday, August 31st**
The symposium dinner will take place in the evening at the "Hotel Amigo". The cost is of 75 Euro per head. Payment should be made together with the registration fee (see registration form).

Enquiries

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SCIENTIFIC PROGRAMME

INTRODUCTORY SESSIONS

WEDNESDAY AUGUST 30th

08h00 **Opening of the registration desk**

09h00 **Welcome address**

09h30 **European emissions legislations for mobile sources.**
L 1 *R. Schulte Braucks*
DGE AI, European Commission, Brussels, Belgium

10h30 **Developments in Diesel engines technology.**
L 2 *M. Khair*
Southwest Research Institute, San Antonio, USA

11h30 **A critical comparison of HC-SCR and NO_x storage for low-temperature aftertreatment.**
L 3 *R. Burch*
Queen's University Belfast, Belfast, N. Ireland

12h30 ***Lunch*** **– Poster Session (overview)**

ORAL SESSIONS

WEDNESDAY AUGUST 30th

PARTICULATES CONTROL

14h00 **Diesel exhaust controls: a new challenge for Diesel oxidation catalysts and catalytic soot filters: zero production of NO_2.**

K 1 *J. Lemaire*
AEEDA, France

14h30 **Catalytic effect of platinum on the kinetics of carbon oxidation by NO_2 and O_2.**

O 1 *V. Tschamber, M. Jeguirim, F. Ammari, P. Ehrburger*
Université de Haute Alsace, Mulhouse, France

14h50 **2D simulation of the regeneration performance of a catalysed DPF for heavy-duty applications.**

O 2 *M. Frey, G. Wenninger, B. Krutzsch, G. C. Koltsakis[a], O. A. Haralampous[a], Z. C. Samaras[a]*
Daimler Chrysler AG, Stuttgart, Germany
[a] Aristotle University Thessaloniki, Thessaloniki, Greece

15h10 **Technical achievements and new potential risk: studies on particulate matter of low-emission Diesel engine.**

O 3 *D. S. Su, J.-O. Müller, R. Schlögl*
Fritz-Haber-Institut, Berlin, Germany

15h30 ***Coffee Break*** **– Poster Session (1 - 22)**

16h00 **Discussion of posters (1 - 22)**

17h00 **Highly active and potential soot oxidation materials for fuel borne catalysts and catalysed soot filters.**

K 2 *K. Krishna, A. Bueno-López, M. Makkee, J. A. Moulijn*
Delft University of Technology, Delft, The Netherlands

17h30 **Measurements of Diesel soot oxidation kinetics in an isothermal flow reactor – catalytic effects using Pt based coatings.**

O 4 *M. Kalogirou, D. Katsaounis, G. C. Koltsakis, Z. C. Samaras*
Aristotle University Thessaloniki, Thessaloniki, Greece

17h50 **Secondary nanoparticle emissions during Diesel particulate trap regeneration.**

O 5 *E. Cauda, S. Hernandez, D. Fino, G. Saracco, V. Specchia*
Politecnico di Torino, Torino, Italy

18h30 **Departure to the reception**

19h00 **Reception**

THURSDAY AUGUST 31st

NO_X CONTROL

08h30 **Thermal ageing phenomena and strategies towards reactivation of NO_x storage catalysts.**

K 3 *M. Casapu, J.-D. Grunwaldt, M. Maciejewski, A. Baiker, M. Wittrock[a], U. Göbel[a]*
ETH, Zürich, Switzerland
[a] Umicore AG & Co. KG, Hanau, Germany

09h00 **Experimental investigation on the role of Pt, Rh, Ba, Ce and Al_2O_3 on NO_x-storage catalyst functions.**

O 6 *V. Schmeißer, J. de Riva Pérez, U. Tuttlies, G. Eigenberger*
University of Stuttgart, Stuttgart, Germany

09h20 **How to control the selectivity in the reduction of NO_x with H_2 over Pt-Ba/Al_2O_3 lean NO_x trap catalysts?**

O 7 *I. Nova, L. Castoldi, L. Lietti, E. Tronconi, P. Forzatti*
Politecnico di Milano, Milano, Italy

09h40 **Selective reduction of NO_x in Diesel exhaust with hydrocarbons over alumina catalyst in NEDC conditions.**

O 8 *I. Nadjar, J.-M. Trichard[a], P. Da Costa, G. Djéga-Mariadassou*
Université Pierre et Marie Curie, Paris, France
[a] Renault S.A., Guyancourt, France

10h00 ***Coffee Break*** **– Poster Session (23-77)**

11h00 **NO_x storage capacity, SO_2 resistance and regeneration of Pt/(Ba)/CeZr model catalysts for NO_x-trap system.**

K 4 *E. C. Corbos, S. Elbouazzaoui, X. Courtois, P. Marecot, D. Duprez*
CNRS-Université de Poitiers, Poitiers, France

11h30 **Dynamic phenomena of SCR-catalysts containing Fe-exchanged zeolites - experiments and computer simulations.**

O 9 *S. Malmberg, M. Votsmeier, J. Gieshoff, N. Söger, L. Mussmann, A. Schuler[a], A. Drochner[a]*
Umicore AG & Co. KG, Hanau, Germany
[a] Technische Universität Darmstadt, Darmstadt, Germany

11h50 **FT-IR study of NO_x storage mechanism over $Pt/Ba/Al_2O_3$ catalysts. Effect of the Pt-Ba proximity.**
O 10 *U. Elizundia, R. López-Fonseca, I. Landa, M. A.Gutiérrez-Ortiz, J. R. González-Velasco*
Universidad del País Vasco, Bilbao, Spain

12h10 **NH_3-NO/NO_2 SCR for Diesel exhausts aftertreatment: mechanism and modelling of a catalytic converter.**
O 11 *C. Ciardelli, I. Nova, E. Tronconi*
Politecnico di Milano, Milano, Italy

12h30 ***Lunch*** **– Poster Session (23-77)**

TWC – MECHANISMS – KINETICS – MODELING

14h00 **Emission control technologies for spark-ignition engines – recent trends and future developments.**
K 5 *M. Twigg*
Johnson Matthey, Royston, United Kingdom

14h30 **Basic investigation of the chemical deactivation of V_2O_5/WO_3-TiO_2 SCR catalysts by additives and impurities from fuels, lubrication oils and urea solution.**
O 12 *O. Kröcher, M. Elsener*
Paul Scherrer Institut, Villigen, Switzerland

14h50 **Effects of catalyst aging on the activity and selectivity of commercial three-way catalysts.**
O 13 *J. H. Baik, H. J. Kwon, Y. T. Kwon, I.-S. Nam, S. H. Oh*[a]
Pohang University of Science and Technology, Korea
[a] General Motors R&D Center, Warren, USA

15h10 **NSR catalysis studied using scanning tunnelling microscopy.**
O 14 *M. Bowker, M. Hall, E. Fourre, P. Stone, M. Ishii*[a]
Cardiff University, United Kingdom
[a] Toyota Motor Corporation, Aichi, Japan

15h30 ***Coffee Break***

16h00 **Discussion of posters (23-77)**

19h30 **Symposium dinner**

AGEING – POISONING – FUEL ALTERNATIVES – MISCELLANEOUS

09h00 **Selective catalytic reduction of NO_x over Ag/Al_2O_3 using various biodiesels as reducing agents.**
O 15 *K. Arve, K. Eränen, M. Snåre, D. Yu. Murzin*
Åbo Akademi University, Åbo, Finland

09h20 **Regeneration treatments of S-poisoned Pd/Al_2O_3 and Pd/CeO_2-Al_2O_3 catalysts for the combustion of methane.**
O 16 *F. Arosio, S. Colussi[a], G. Groppi, A. Trovarelli[a]*
Politecnico di Milano, Milano, Italy
[a] Università degli Studi di Udine, Udine, Italy

09h40 ***Coffee Break*** **– Poster Session (78-104)**

10h30 **Discussion of posters (78-104)**

11h30 **The effect of thermal aging and sulfur oxides on Pt-Pd based Diesel oxidation catalysts.**
O 17 *T. Beutel, D. Hollobaugh, T. Mueller, T. Schmitz, T. Gegan, B. Nartowicz, N. Brungard, G. Munzing, J. Dettling*
Engelhard Corporation, Iselin, USA

11h50 **Effect of phosphorus poisoning on catalytic activity of Diesel exhaust gas catalyst components containing oxide and Pt.**
O 18 *V. Kröger[a], M. Hietikko[a], U. Lassi[a,b], A. Suopanki[c], R. Laitinen[a], R. L. Keiski[a]*
[a] University of Oulu, Oulu, Finland
[b] Central Ostrobothnia Polytechnic, Kokkola, Finland
[c] Ecocat Oy, Oulu, Finland

12h10 **Concluding remarks**

12h30 ***Lunch***

PARTICULATES CONTROL (P1 – P22)

P 1 **deNO$_x$ reduction by methanol over Co/alumina.**
J.-W. Park, C. Potvin, G. Djéga-Mariadassou
Université Pierre et Marie Curie, Paris, France

P 2 **Mechanistic study of the Diesel soot oxidation with NO_2 and O_2 on mixed oxides with fluorite- and perovskite-like structures.**
V. A. Matyshak, O. N. Silchenkova, A. A. Ukharskii, T. G. Kuznetsova[a], V. A. Sadykov[a], V. N. Korchak
Semenov Institute of Chemical Physics RAS, Moscow, Russia
[a] Boreskov Institute of Catalysis SB RAS, Russia

P 3 **Simultaneous removal of NO_x and carbon particulates over Cu/CeO_2-AC catalyst.**
Z. Liu, A. Wang, C. Xu, X. Wang, T. Zhang
Dalian Institute of Chemical Physics, Dalian, China

P 4 **A catalytic Diesel particulate filter with a heat recovery function.**
A. Obuchi, J. Uchisawa, A. Ohi, T. Nanba, N. Nakayama
National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan

P 5 **Catalytic combustion of particulate matter poisoning effect of SO_2 on the catalytic activity of Cu-KNO_3/Al_2O_3.**
S. Mosconi, A. Carrascull, I. D. Lick[a], M. I. Ponzi, E. N. Ponzi[a]
INTEQUI (CONICET-UNSL), San Luis, Argentina
[a] CINDECA (CONICET-UNLP), La Plata, Buenos Aires, Argentina

P 6 **Au-based catalyst oxidation of Diesel soot particulates.**
M. L. Ruiz, M. I. Ponzi, E. N. Ponzi[a]
INTEQUI (CONICET-UNSL), San Luis, Argentina
[a] CINDECA (CONICET-UNLP), La Plata, Buenos Aires, Argentina

P 7 **Zirconia supported ruthenia catalysts for Diesel soot oxidation.**
M. Dhakad, N. Labhsetwar, S. S. Rayalu, T. Mitsuhashi[a], H. Haneda[a], S. Devotta
National Environmental Engineering Research Institute, Nehru Marg, Nagpur-440020, India
[a] National Institute for Materials Science, Tsukuba, Ibaraki-305-0044, Japan

P 8 **Performance of K-promoted catalysts for NO_x/soot removal from simulated Diesel exhaust.**
N. Nejar, M. J. Illán-Gómez
University of Alicante, Alicante, Spain

P 9 **Particulate emission control in developing countries: catalytic reduction of particulates.**
I. Zirkwa, R. Kolke, F. Dursbeck[a]
HJS Fahrzeugtechnik GmbH & Co. KG, Menden, Germany
[a] TALSA, Santiago, Chile

P10 **Study on the mechanism of the simultaneous catalytic reaction of soot and NO_x in Diesel exhaust.**
H. Bockhorn, S. Kureti, D. Reichert
Universität Karlsruhe, Karlsruhe, Germany

P 11 **4-way catalysis: incorporation of catalytic formulations in the porosity of wall flow filters.**
A. Lambert, T. Bécue, E. Comte, J. P. Joulin[a]
Institut Français du Pétrole, Vernaison, France
[a] CTI, Salindres, France

P 12 **Development of catalytic materials for next generation Diesel particulate filters.**
S. Lorentzou, S. Skopa, A. G. Konstandopoulos
Aerosol & Particle Technology Laboratory, Thessaloniki, Greece

P 13 **Development of a 3-D CFD simulator for the assessment of a sintered metal Diesel particulate filter.**
N. Vlachos, I. Stavropoulos, D. Zarvalis, S. Skopa, A. G. Konstandopoulos
Aerosol & Particle Technology Laboratory, Thessaloniki, Greece

P 14 **Reduction of soot pollution from automotive Diesel engine by ceramic foam catalytic filter.**
P. Ciambelli, G. Matarazzo, V. Palma, P. Russo, E. Merlone Borla[a]*, M. F. Pidria*[a]
Università di Salerno, Fisciano, Italy
[a] Centro Ricerche Fiat, Orbassano, Italy

P 15 **High performances of Pt-K/Al_2O_3 vs. Pt-Ba/Al_2O_3 LNT catalysts in the simultaneous removal of NO_x and soot.**
L. Castoldi, R. Matarrese, L. Lietti, P. Forzatti
Politecnico di Milano, Milano, Italy

P 16 **Kinetics and mechanism of soot oxidation by NO_2 and mixtures of NO_2 + O_2 w/wo a catalyst in Diesel exhaust gas conditions.**
P. Darcy[a,b]*, P. Da Costa*[b]*, H. Mellottée*[b]*, J.-M. Trichard*[a]*, S. Calvo*[a]*, G. Djéga-Mariadassou*[b]
[a] Renault, Guyancourt, France.
[b] Université Pierre et Marie Curie, Paris, France

P 17 **A Diesel particulate filter for older generation cars.**
W. Tylus, J. Zabrzeski
Wroclaw University of Technology, Wroclaw, Poland

P 18 **Thermally stable metal ruthenate type soot oxidation catalyst for Diesel exhaust emission control.**
N. K. Labhsetwar, S. S. Rayalu, M. Dhakad, A. Watanabe[a], T. Mitsuhashi[a], H. Haneda[a]
National Environmental Engineering Research Institute, Nagpur, India
[a] National Institute for Materials Science, Tsukuba, Ibaraki-305-0044, Japan

P 19 **Investigation of the decomposition of soot.**
J. Grundmann, S. Müller, R.-J. Zahn, A. Quade, H. Steffen
Institut für Niedertemperatur-Plasmaphysik, Greifswald, Germany

P 20 **Modeling of catalysed Diesel particulate filters for cost reduction analysis.**
H. Colas, G. Crehan, T. Bertin, M. Wermester, A. S. Quiney
PSA Peugeot Citroën, La Garenne-Colombes, France

P 21 **Efficient material design for Diesel particulate filters.**
C. D. Vogt, I. Lappas, A. Schäfer-Schäfer-Sindlinger, H. Kurachi[a]
NGK Europe GmbH, Germany
[a] NGK Insulators Ltd., Japan

P 22 **Promotion effect of surface lanthanum in soot oxidation over ceria-based catalysts.**
E. Aneggi, G. Dolcetti, C. de Leitenburg, A. Trovarelli
Università di Udine, Udine, Italy

NO_x CONTROL (P23 – P77)

P 23 **Promoting effect of C_3H_8 and SO_2 on the activity of Pt-Sn/γ-Al_2O_3 catalysts for CH_4 emissions abatement from lean burn natural gas vehicles.**
G. Corro, O. Vazquez C., F. Bañuelos, J. L. G. Fierro[a]
Benemerita Universidad Autonoma de Puebla, Puebla, Mexico
[a] Instituto de Catálisis y Petroleoquímica, Madrid, Spain

P 24 **Selective catalytic reduction of NO by NH_3 on Cu(II) ion-exchanged offretite prepared by different methods.**
W. Arous, H. Tounsi, S. Djemel, A. Ghorbel, G. Delahay[a]
Laboratoire de Chimie des Matériaux et Catalyse, FST, Tunis, Tunisie
[a] Laboratoire de Matériaux Catalytiques et Catalyse en Chimie Organique, ENSCM, Montpellier, France

P 25 **Role of different Ba-containing phases in supported Pt-Ba NSR catalysts.**
M. Piacentini, M. Maciejewski, A. Baiker
ETH, Zürich, Switzerland

P 26 **Low-temperature selective catalytic reduction of NO with NH_3 over Mn-Fe/USY.**
Q. Lin, J. Hao, J. Li
Tsinghua University, Beijing, China

P 27 **Role of cobalt on γ-Al_2O_3 based NO_x storage catalyst.**
Joo-Hyoung Park, Hyun Ju Cho, Sang Jun Park, In-Sik Nam, Gwon Koo Yeo[a], Jeong Ki Kil[a], Young Kee Youn[a]
Pohang University of Science and Technology, Pohang, Korea
[a] Hyundai Motors Company & Kia Motors Corporation, Yongin-Si, Korea

P 28 **NO_x trap modeling and experimental validation using ultra-fast analyzers.**
G. C. Koltsakis, N. K. Margaritis, O. A. Haralampous
Aristotle University Thessaloniki, Thessaloniki, Greece

P 29 **Modeling and simulation of NO_x abatement with storage/reduction catalysts for lean burn and Diesel engines.**
J. Koop, O. Deutschmann, V. Schmeißer[a], G. Eigenberger[a]
University of Karlsruhe, Karlsruhe, Germany
[a] University of Stuttgart, Stuttgart, Germany

P 30 **Rare earths based oxides as alternative to Ba in NO_x-trap catalysts.**
E. Rohart, G. Blanchard, V. Harlé, S. Verdier, K. Yokota, M. Allain[a]
RHODIA Research, Aubervilliers, France
[a] RHODIA Electronics, La Rochelle, France

P 31 **Study on the performance of Cu/sepiolite catalyst for NO reduction.**
W. Dao, F. Cuiyun, Y. Yang, L. Li
Beijing University of Technology, Beijing, China

P 32 **A realistic simulation model for NO_x-storage catalyst dynamics.**
V. Schmeißer, U. Tuttlies, G. Eigenberger
Universität Stuttgart, Stuttgart, Germany

P 33 **Effect of O_2 concentration on the selective catalytic reduction of NO over Na/Pt impregnated titanium-pillared interlaying clays (Ti-PILCs).**
F. Dorado, A. de Lucas, A. Romero, A. de Lucas-Consuegra, P. B. García, J. L. Valverde
Universidad de Castilla-La Mancha, Spain

P 34 **Selective catalytic reduction of NO_x over Ag/Al_2O_3 catalyst: from laboratory to bench test.**
J. Li, Y. Zhu, S. Kang, L. Fu, J. Hao
Tsinghua University, Beijing, China

P 35 **A kinetic study of NO_x reduction over Pt/SiO_2 model catalysts with hydrogen as reducing agent.**
A. Söderholm, N. W. Currier[a], A. Yezerets[a], L. Olsson
Chalmers University of Technology, Göteborg, Sweden
[a] Cummins Inc., Columbus, USA

P 36 **Catalytic reduction of nitrogen monoxide by propene in the presence of excess oxygen over gold based ceria catalyst.**
L. T. Nga Nguyen, C. Potvin, G. Djéga-Mariadassou, L. Delannoy, C. Louis
Université Pierre et Marie Curie, Paris, France

P 37 **Fundamental studies of NO_x storage at low temperatures.**
L. Olsson, P. Jozsa[a], M. Nilsson[b], E. Jobson[a]
Chalmers University of Technology, Göteborg, Sweden
[a] Volvo Technology Corporation, Göteborg, Sweden
[b] Volvo Powertrain Corporation, Göteborg, Sweden

P 38 **Characterisation of structured hydrolysis catalysts for urea-SCR.**
S. Steinbach, J. Grünwald, U. Glückert, T. Sattelmayer
Technische Universität München, Garching, Germany

P 39 **Mechanistic aspects of lean NO_2 reduction by propane over HZSM-5.**
H. Härelind Ingelsten, A. Palmqvist, M. Skoglundh
Chalmers University of Technology, Göteborg, Sweden

P 40 **The H_2 role in the synergistic phenomenon in selective NO_x reduction by propane over mechanical mixture of oxide catalysts.**
V. Matyshak, T. Burdeynaya[a], A. Zakirova[a], V. Tretyakov[a], V. Korchak
Semenov Institute of Chemical Physics RAS, Moscow, Russia
[a] Topchiev Institute of Petrochemical Synthesis RAS, Moscow, Russia

P 41 **Model gas investigations on the impact of ammonium formate on the emissions in urea-SCR.**
O. Kröcher, M. Elsener
Paul Scherrer Institut, Villigen, Switzerland

P 42 **Reaction distributions in NO_x storage/reduction catalysts.**
W. S. Epling, W. P. Partridge[a], J.-S. Choi[a], A. Yezerets[b], N. W. Currier[b]
University of Waterloo, Waterloo, Canada
[a] Oak Ridge National Laboratory, Knoxville, USA
[b] Cummins, Inc., Columbus, USA

P 43 **Identification of adsorbed species on Cu-ZSM-5 under NH_3 SCR conditions.**
H. Sjövall, E. Fridell, R. J. Blint[a], L. Olsson
Chalmers University of Technology, Göteborg, Sweden
[a] General Motors R&D Center, Warren, USA

P 44 **Kinetics and surface chemistry of the hydrolysis of isocyanic acid in the urea-SCR process.**
P. Hauck, A. Jentys, J. A. Lercher
Technische Universität München, Garching, Germany

P 45 **Effects of oxidation and NO_x storage properties on the selectivity of Ag/Al_2O_3 catalysts for HC-SCR of NO_x.**
L. Kylhammar, A. Palmqvist, M. Skoglundh
Chalmers University of Technology, Göteborg, Sweden

P 46 **Transport modelling combined with a microkinetic model for NSR using the finite element method.**
B. Wickman, A. Lundström, J. Sjöblom, D. Creaser
Chalmers University of Technology, Göteborg, Sweden

P 47 **Preparation and characterization of Pd-Co catalysts on sulphated zirconia for the SCR-NO with methane.**
A. A. Rubert, A.-S. Mamede[a], C. I. Cabello, C. E. Quincoces, M. G. González
Univ. de La Plata-CONICET, La Plata, Argentina
[a] Univ. Sc. et Tech. de Lille, Villeneuve d'Ascq, France

P 48 **A pathway of $NO-H_2-O_2$ reaction over Pt/ZrO_2 through ammonium nitrate.**
T. Nanba, K. Sugawara, S. Masukawa, J. Uchisawa, A. Obuchi
National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Japan

P 49 **Gold supported on surface acidity modified ZSM-5 for SCR of NO with propene.**
X. Wang, A. Wang, Z. Liu, P. Gao, X. Yang, T. Zhang
Dalian Institute of Chemical Physics, Dalian, China

P 50 **C_2H_2-SCR of NO over MoO_3/HZSM-5 catalyst.**
X. Wang, S. Yu, H. Yang, S. Zhang
Dalian University of Technology, Dalian, China

P 51 **Modeling NO_x adsorption on a thin Na-ZSM-5 film supported on a cordierite monolith.**
I. Perdana[a,b], D. Creaser[a], B. Wikan Tyoso[b], I Made Bendiyasa[b], Rochmadi[b]
[a] Chalmers University of Technology, Göteborg, Sweden
[b] Gadjah Mada University, Indonesia

P 52 **Reduction of NO in lean burn condition over Pd supported catalysts: kinetic study.**
F. Dhainaut, S. Pietrzik, P. Granger
Université des Sciences et Technologies de Lille, Villeneuve d'Ascq, France

P 53 **Using acetylene for SCR of NO in excess of oxygen over Ce-HY.**
S. Yu, X. Wang, C. Wang, Y. Xu
Dalian University of Technology, Dalian, China

P 54 **Combined XPS and TPR study of sulfur removal from a $Pt/BaO/Al_2O_3$ NO_x storage-reduction catalyst.**
A. Yu. Stakheev, P. Gabrielsson[a], I. Gekas[a], N. N. Tolkachev, G. N. Baeva, G. O. Bragina, N. S. Teleguina
Zelinsky Institute of Organic Chemistry, Moscow, Russia
[a] Haldor Topsoe, Lyngby, Denmark

P 55 **NO_x reduction performance of lean NO_x catalyst and lean NO_x adsorber using DME as reducing agent.**
S. Erkfeldt[a,b], E. Jobson[a,b], A. Palmqvist[b]
[a] Volvo Technology Corporation, Göteborg, Sweden
[b] Chalmers University of Technology, Göteborg, Sweden

P 56 **Selective catalytic reduction of NO_x by NH_3 on Fe based catalysts.**
P. Balle, B. Geiger, S. Kureti
Universität Karlsruhe, Karlsruhe, Germany

P 57 **Reduction of NO_x by H_2 on Pt containing catalysts in Diesel exhaust.**
S. Kureti, F. J. P. Schott
Universität Karlsruhe, Karlsruhe, Germany

P 58 **Improved water resistivity of lean deNO_x performance of CuZSM-5.**
M. Berggrund, M. Skoglundh, A. E. C. Palmqvist
Chalmers University of Technology, Göteborg, Sweden

P 59 **Global kinetic models for the oxidation of NO on platinum under lean conditions.**
W. Hauptmann, A. Drochner, H. Vogel, M. Votsmeier[a], J. Gieshoff[a]
Technical University of Darmstadt, Darmstadt, Germany
[a] Umicore AG & Co. KG, Hanau, Germany

P 60 **Combined use of a MS-spectrometer and a new UV analyser in the dynamic study of NH_3-SCR for Diesel exhaust aftertreatment.**
C. Ciardelli, I. Nova, E. Tronconi, M. Ascherfeld[a], W. Fabinski[a]
Politecnico di Milano, Milano, Italy
[a] ABB Automation GmbH, Frankfurt, Germany

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F. Basile, G. Fornasari, A. Gambatesa, M. Livi, A. Vaccari
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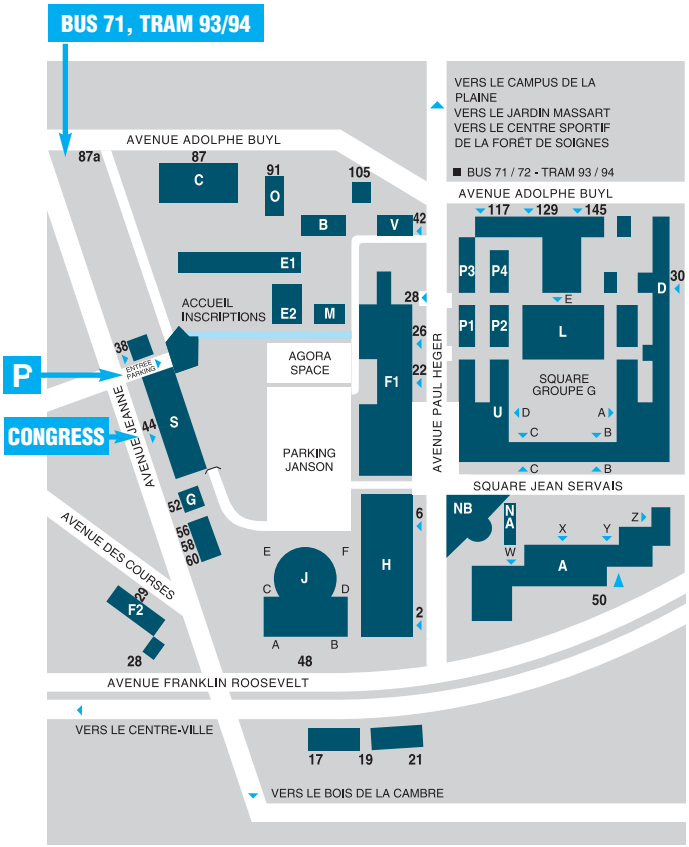

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