

## Academic References- Catalyst Characterisation

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- G 5. **Adsorption & reaction induced morphological changes of the copper surface of a methanol synthesis catalyst**  
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Hsiao-Jung Wu, Heng-Kai Hsu, Chao-Ming Chiang  
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- G 8. **A Study of the Kinetics & Mechanism of the Adsorption & Anaerobic Partial Oxidation of *n*-Butane over a Vanadyl Pyrophosphate Catalyst**  
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- G 11. **Characterization & catalytic properties of Pt/TiO<sub>2</sub> catalyst prepared by photochemical deposition**  
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- G 12. **Selective & Facile C-F Bond Activation of Trifluoromethyl Groups on Cu(111)**  
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J. Couves,<sup>a\*</sup> M. Atkins,<sup>a</sup> M. Hague,<sup>b</sup> B.H. Sakakini,<sup>c</sup> K.C. Waugh<sup>c</sup>  
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M A Gómez García<sup>\*1</sup>, S Thomas, V Pitchon, A Kiennemann  
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- G 31 **Structures and Properties of Zirconia-Supported Ruthenium Oxide Catalysts for the Selective Oxidation of Methanol to Methyl Formate**  
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Evgenii V. Kondratenko<sup>a,\*</sup>, Javier Pe´rez-Rami´rez<sup>b,\*</sup>  
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- G 36 **The devolatilisation of particles of a complex fuel (dried sewage sludge) in a fluidised bed**  
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- G 37 **The influence of silver on the structural, redox and catalytic properties of the rhytomelane-type manganese oxides in the low-temperature CO oxidation reaction**  
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- G 38 **The influence of the preparation methods and pretreatment conditions on the properties of Ag-MCM-41 catalysts**  
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- G 42 **Selective poisoning of active centers of sulfated zirconia monitored by TAP, XPS, and DRIFTS**  
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- G 43 **Structural and thermal study of carbon-modified molybdenum sub-oxide catalysts**  
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*Applied Catalysis A: General* 321 (2007) 117–124
- G 44 **Acid strengths and catalytic activities of sulfonic acid on polymeric and silica supports**  
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- G 45 **Embedded Rh(1 wt.%)@Al<sub>2</sub>O<sub>3</sub>: Effects of high temperature and prolonged aging under methane partial oxidation conditions**  
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*Applied Catalysis B: Environmental* 73 (2007) 84–97
- G 46 **Design and operation of a high pressure reaction cell for in situ X-ray absorption spectroscopy**  
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*Catalysis Today* xxx (2006) xxx–xxx
- G 47 **Catalytic decomposition of N<sub>2</sub>O over CeO<sub>2</sub> promoted Co<sub>3</sub>O<sub>4</sub> spinel catalyst**  
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- G 48. **Structure–activity relations in Cs-doped heteropolyacid catalysts for biodiesel production**  
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- G 49. **TiO<sub>2</sub> nanopowders doped with boron and nitrogen for photocatalytic applications**  
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- G 50 **An integrated system of biological and catalytic oxidation for the removal of o-xylene from exhaust**  
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- G 51 **An investigation of NO/CO reaction over perovskite-type oxide  $\text{La}_{0.8}\text{Ce}_{0.2}\text{B}_{0.4}\text{Mn}_{0.6}\text{O}_3$  (B = Cu or Ag) catalysts synthesized by reverse microemulsion**  
 Hong He \*, Mei Liu, Hongxing Dai, Wenge Qiu, Xuehong Zi  
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*Catalysis Today*, 126, 2007, p. 290–295
- G 52 **Cu/ZnO/Al<sub>2</sub>O<sub>3</sub> catalysts for oxidative steam reforming of methanol: The role of Cu and the dispersing oxide matrix**  
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*Applied Catalysis B: Environmental*, 77, 2007, p. 46–57
- G 53 **Mechanism of ammonia oxidation over oxides studied by temporal analysis of products**  
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*Journal of Catalysis*, 250, 2007, p. 240–246
- G 54 **Nanosized perovskite-type oxides  $\text{La}_{1-x}\text{Sr}_x\text{MO}_3$  (M = Co, Mn; x = 0, 0.4) for the catalytic removal of ethylacetate**  
 Jianrong Niu, Jiguang Deng, Wei Liu, Lei Zhang, Guozhi Wang, Hongxing Dai \*, Hong He, Xuehong Zi  
 Laboratory of Catalysis Chemistry and Nanoscience, Department of Chemistry and Chemical Engineering, College of Environmental and Energy Engineering, Beijing University of Technology, Beijing 100022, PR China  
*Catalysis Today*, 126, 2007, p. 420–429
- G 55 **Promotion effect of residual K on the decomposition of N<sub>2</sub>O over cobalt–cerium mixed oxide catalyst**  
 Li Xue<sup>a</sup>, Changbin Zhang<sup>a</sup>, Hong He<sup>a,\*</sup>, Yasutake Teraoka<sup>b</sup>  
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*Catalysis Today*, 126, 2007, p. 449–455
- G 56 **Selective catalytic oxidation of ammonia from MAP decomposition**  
 Shilong He, Changbin Zhang, Min Yang, Yu Zhang, Wenqing Xu, Nan Cao, Hong He\*  
 Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, 18 Shuangqing Road, P.O. Box 2871, Beijing 100085, China  
*Separation and Purification Technology*, 58, 2007, p. 173–178



- G 57 **Synthesis of CeO<sub>2</sub>–MnO<sub>x</sub> mixed oxides and catalytic performance under oxygen-rich condition**  
 Xiaodong Wu \*, Qing Liang, Duan Weng, Jun Fan, Rui Ran  
 Laboratory of Advanced Materials, Department of Materials Science and Engineering, Tsinghua University, Beijing 100084, China  
*Catalysis Today*, 126, 2007, p. 430–435
- G 58 **Significant impact of nitric acid treatment on the cathode performance of Ba<sub>0.5</sub>Sr<sub>0.5</sub>Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>3–δ</sub> perovskite oxide via combined EDTA–citric complexing process**  
 Wei Zhou, Ran Ran, Zong Ping Shao \*, Hong Xia Gu, Wan Qin Jin, Nan Ping Xu  
 College of Chemistry and Chemical Engineering, Nanjing University of Technology, No. 5 Xin Mofan Road, Nanjing 210009, Jiangsu, PR China  
*Journal of Power Sources*, 174, 2007, p. 237–245
- G 59 **Hydrogen dissociation on oxide covered MgH<sub>2</sub> by catalytically active vacancies**  
 A. Borgschulte<sup>a,\*</sup>, M. Biemann<sup>a</sup>, A. Züttel<sup>a</sup>, G. Barkhordarian<sup>b</sup>, M. Dornheim<sup>b</sup>, R. Bormann<sup>b</sup>  
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<sup>b</sup>GKSS-Research Center Geesthacht GmbH, WTP, Building 59, Max-Planck-Strasse 1, 21502 Geesthacht, Germany  
*Applied Surface Science – Article in Press*
- G 60 **New polystyrene sulfonic acid resin catalysts with enhanced acidic and catalytic properties**  
 P.F. Siril<sup>1</sup>, H.E. Cross, D.R. Brown\*  
 Department of Chemical and Biological Sciences, University of Huddersfield, Huddersfield, HD1 3DH, UK  
*Journal of Molecular Catalysis A: Chemical*, 279, 2008, p. 63–68
- G 61 **A comparative investigation on the properties of Cr-SBA-15 and CrO<sub>x</sub>/SBA-15**  
 Lei Zhang<sup>a</sup>, Yanhui Zhao<sup>a</sup>, Hongxing Dai<sup>a,\*</sup>, Hong He<sup>a</sup>, C.T. Au<sup>b,\*\*</sup>  
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<sup>b</sup>Department of Chemistry, Center for Surface Analysis and Research, Hong Kong Baptist University, Kowloon Tong, Hong Kong, China  
*Catalysis Today – Article in Press*
- G 62 **An investigation of NO/CO reaction over perovskite-type oxide La<sub>0.8</sub>Ce<sub>0.2</sub>B<sub>0.4</sub>Mn<sub>0.6</sub>O<sub>3</sub> (B = Cu or Ag) catalysts synthesized by reverse microemulsion**  
 Hong He \*, Mei Liu, Hongxing Dai, Wenge Qiu, Xuehong Zi  
 Department of Chemistry and Chemical Engineering, College of Environmental and Energy Engineering, Beijing University of Technology, Beijing 100022, China  
*Catalysis Today*, 126, 2007, p. 290–295
- G 63 **Coral-like nanostructured α-Mn<sub>2</sub>O<sub>3</sub> nanocrystals for catalytic combustion of methane. Part I. Preparation and characterization**  
 Yi-Fan Han \*, Luwei Chen, Kanaparthi Ramesh, Ziyi Zhong, Fengxi Chen, Jianhau Chin, Hongwai Mook  
 Institute of Chemical and Engineering Sciences, 1 Pesek Road, Jurong Island 627833, Singapore  
*Catalysis Today – Article in Press*

- G 64. **Re-investigating the CO oxidation mechanism over unsupported MnO, Mn<sub>2</sub>O<sub>3</sub> and MnO<sub>2</sub> catalysts**  
 Kanaparthi Ramesh, Luwei Chen, Fengxi Chen, Yan Liu, Zhan Wang, Yi-Fan Han \*  
 Institute of Chemical and Engineering Sciences (ICES), 1 Pesek Road, Jurong Island, Singapore 627833, Singapore  
*Catalysis Today – Article in Press*
- G 65. **Soft ionisation analysis of evolved gas for oxidative decomposition of an epoxy resin/carbon fibre composite.**  
 G Jiang\*, S J Pickering, G S Walker, N Bowering, K H Wong, C D Rudd.  
 School of Mechanical Materials and Manufacturing Engineering, The University of Nottingham, Nottingham NG7 2RD, UK  
*Science Direct – Thermochimica Acta 454 (2007) p. 109 - 115*
- G 66. **Insight into the key aspects of the regeneration process in the NO<sub>x</sub> Storage Reduction (NSR) reaction probed using fast transient kinetics coupled with isotopically labelled <sup>15</sup>N<sub>2</sub>O over Pt and Rh-containing Ba/Al<sub>2</sub>O<sub>3</sub> catalysts**  
 J P Breen\*, R Burch, C Fontaine-Gautrelet, C Hardacre, C Rioche  
 CenTACat, School of Chemistry and Chemical Engineering, Queen's University of Belfast, Belfast, BT9 5AG, Northern Ireland  
*To appear in Applied Catalysis B: Environmental*
- G 67. **Vanadium-metal(IV)phosphates as catalysts for the oxidative dehydrogenation of ethane**  
 L. Lisi a, \*, G. Ruoppolo a, M.P. Casaleto b, P. Galli c,  
 M.A. Massucci c, P. Patrono d, F. Pinzari d  
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 d Istituto di Metodologie Inorganiche e dei Plasmi, CNR, Monterotondo Scalo, Roma, Italy  
*Journal of Molecular Catalysis A: Chemical 232 (2005) 127–134*
- G 68. **Evaluating the catalytic performances of SAPO-34 catalysts for the oxidative dehydrogenation of ethane**  
 L. Lisi<sup>a</sup>, L. Marchese<sup>b\*</sup>, H.O. Pastore<sup>c</sup>, A. Frache<sup>b</sup>, G. Ruoppolo<sup>d</sup> and G. Russo<sup>a</sup>  
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*Topics in Catalysis Vol. 22, Nos. 1/2, January 2003 (# 2003)*
- G 69. **Effect of interparticle interaction on the low temperature oxidation of CO over size-selected Au nanocatalysts supported on ultrathin TiC films**  
 Luis K. Ono and Beatriz Roldán-Cuenya\*  
 Department of Physics, University of Central Florida, Orlando, FL 32816, USA  
*Catalysis Letters ( 2007) DOI: 10.1007/s10562-007-9027-7*

- G 70. **Kinetic and spectroscopic study of methane combustion over  $\alpha$ -Mn<sub>2</sub>O<sub>3</sub> nanocrystal catalysts**  
 Yi-Fan Han <sup>\*</sup>, Luwei Chen, Kanaparthi Ramesh, Effendi Widjaja, Srilakshmi Chilukoti, Ingrid Kesumawinata Surjami, Junsong Chen  
 Institute of Chemical and Engineering Sciences, 1, Pesek Road, Jurong Island, 627833 Singapore  
*Journal of Catalysis* 253 (2008) 261–268
- G 71. **Properties and performance of Ba<sub>0.5</sub>Sr<sub>0.5</sub>Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>3</sub>–<sub>y</sub>+Sm<sub>0.2</sub>Ce<sub>0.8</sub>O<sub>1.9</sub> composite cathode**  
 Kang Wang <sup>a</sup>, Ran Rana, Wei Zhoua, Hongxia Gua, Zongping Shao <sup>a,\*</sup>, Jeongmin Ahn<sup>b</sup>  
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 Sloan 217, Pullman, WA 99164-2920, USA  
*Journal of Power Sources* xxx (2008) xxx–xxx
- G 72. **Noncatalytic hydrothermolysis of ammonia borane**  
 Moiz Diwan, Victor Diakov<sup>1</sup>, Evgeny Shafirovich, Arvind Varma  
 School of Chemical Engineering, Purdue University, 480 Stadium Mall Drive, West Lafayette, IN 47907, USA  
*journal homepage: www.elsevier.com/locate/ijhydene*
- G 73. **Methane oxidation by NO and O<sub>2</sub> from reverse spillover on alumina supported palladium catalysts**  
 Rui Marques, Sandra Capela, Stéphanie Da Costa, Franck Delacroix, Gérald Djéga-Mariadassou, Patrick Da Costa  
*Catalysis Communications*
- G 74. **Oxygen selective membranes based on B-site cation-deficient (Ba<sub>0.5</sub>Sr<sub>0.5</sub>)(Co<sub>0.8</sub>Fe<sub>0.2</sub>)<sub>y</sub>O<sub>3-δ</sub> perovskite with improved operational stability**  
 Lei Ge<sup>1</sup>, Ran Ran<sup>1</sup>, Kun Zhang<sup>1</sup>, Shaomin Liu<sup>2</sup>, Zongping Shao<sup>1\*</sup>  
<sup>1</sup> State Key Laboratory of Materials-Oriented Chemical Engineering, Nanjing University of Technology, No 5 Xin Mofan Road, Nanjing 210009, P R China  
<sup>2</sup> ARC Center for Functional Nanomaterials, School of Engineering, The University of Queensland, Brisbane, Queensland 4072, Australia  
*To appear in Journal of Membrane Science*
- G 75. **Evaluation of Ba<sub>0.5</sub>Sr<sub>0.5</sub>Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>3-δ</sub> as a potential cathode for an anode-supported proton-conducting solid-oxide fuel cell**  
 Ye Lin<sup>1</sup>, Ran Ran<sup>1</sup>, Yao Zheng<sup>1</sup>, Zongping Shao<sup>1\*</sup>, Wanqin Jin<sup>1</sup>, Nanping Xu<sup>1</sup>, Jeongmin Ahn<sup>2</sup>  
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*To appear in Journal of Power Sources*
- G 76. **A modified commercial DRIFTS cell for kinetically relevant operando studies of heterogeneous catalytic reactions**  
 F C Meunier<sup>a,\*</sup>, A Goguet<sup>b,\*</sup>, S Shekhtman<sup>b</sup>, D Rooney<sup>b</sup>, H Daly<sup>b</sup>  
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*To appear in Applied Catalysis A: General*

- G 77. **[V,Al]-MCM-22 catalyst in the oxidative dehydrogenation of propane**  
 A Teixeira-Neto<sup>a,b,c</sup>, L Marchese<sup>b</sup>, G Landi<sup>c</sup>, L Lisi<sup>c</sup>, H O Pastore<sup>a,\*</sup>  
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*Science Direct – Catalysis Today (2007), doi: 10.1016/j.cattod.2007.11.012*
- G 78. **Barium- and strontium-enriched (Ba<sub>0.5</sub>Sr<sub>0.5</sub>)<sub>1+x</sub> Co<sub>0.8</sub>Fe<sub>0.2</sub>O<sub>3-δ</sub> oxides as high-performance cathodes for intermediate-temperature solid-oxide fuel cells**  
 Wei Zhou, Ran Ran, Zongping Shao\*, Wei Zhuang, Jing Jia, Hongxia Gu, Wanqin Jin, Nanping Xu  
 State Key Laboratory of Materials-Oriented Chemical Engineering, Nanjing University of Technology, No 5 Xin Mofan Road, Nanjing, JiangSu, 210009, China  
*Science Direct – Acta Materialia (2008), doi:10.1016/j.actamat.2008.02.002*
- G 79. **Hydrogen desorption studies of the Mg<sub>24</sub>Y<sub>5</sub>-H system: Formation of Mg tubes, kinetics and cycling effects**  
 Claudia Zlotea<sup>a,\*</sup>, Martin Sahlberg<sup>b</sup>, Sedat Özbilen<sup>a</sup>, Pietro Moretto<sup>a</sup>, Yvonne Andersson<sup>b</sup>  
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*Science Direct – Acta Materialia (2008), doi:10.1016/j.actamat.2008.01.029*
- G 80. **Catalytic Oxidation of CO Gas over Nanocrystallite CuxMn1-xFe2O4**  
 K. S. Abdel Halim a), A. M. Ismail b), M. H. Khedr c) , M. F. Abadir b)  
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*Springer Top Catal (2008) 47:66–72 , DOI 10.1007/s11244-007-9031-6*
- G 81. **Enhanced hydrogen storage in Ni/Ce composite oxides**  
 Léonard E. A. Berlouis,\*a , Clotilde Jubin,a, Brian G. McMillan,a, James Morrow,a, Mark D. Spicer,a, Leung P. Tang,a, Olivier Bordelanne,b, and Michael Weston,b.  
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*Phys. Chem. Chem. Phys., 2007, 9, 6032–6039*
- G 82. **Quantification of Brønsted Acid Sites in Microporous Catalysts by a Combined FTIR and NH<sub>3</sub>-TPD Study**  
 G. V. A. Martins,<sup>†,‡</sup> G. Berlier,<sup>\*</sup>,<sup>†</sup> C. Bisio,<sup>§</sup> S. Coluccia,<sup>†</sup> H. O. Pastore,<sup>‡</sup> and L. Marchese<sup>\*,§</sup>  
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<sup>‡</sup> Universidade Estadual de Campinas.  
<sup>§</sup> Università del Piemonte Orientale.  
*J. Phys. Chem. C 2008, 112, 7193–7200*

- G 83. **Effect of Pt Impregnation on a Precipitated Iron-based Fischer–Tropsch Synthesis Catalyst**  
 Weiqi Yu b), Baoshan Wu a), Jian Xu a), Zhichao Tao a), Hongwei Xiang a), Yongwang Li a)  
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*Springer Science+Business Media, LLC 2008 - DOI 10.1007/s10562-008-9524-3*
- G 84. **High Performance of Fe–K Oxide Catalysts for Dehydrogenation of Ethylbenzene to Styrene with an aid of ppm-order Pd**  
 Yasushi Sekine, Ryo Watanabe, Masahiko Matsukata, Eiichi Kikuchi  
 Department of Applied Chemistry, School of Science and Engineering, Waseda University, 3-4-1 Okubo, Shinjuku, Tokyo, Japan  
*Springer Science+Business Media, LLC 2008 DOI 10.1007/s10562-008-9580*
- G 85. **A new low temperature approach to developing mesoporosity in metal-doped carbons for adsorption and catalysis**  
 H. M. Williams a), E. A. Dawson a), P. A. Barnes a), G. M. B. Parkes a L. A. Pears b), C. J. Hindmarsh b).  
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*Springer Science+Business Media, LLC 2008 DOI 10.1007/s10934-008-9233-8*
- G 86. **Preparation and Evaluation of Ammonia Decomposition Catalysts by High-Throughput Technique**  
 Hongchao Liu <sup>a, b</sup>, Hua Wang <sup>a</sup>, Jiangnan Shen <sup>a, b</sup>, Ying Sun <sup>a, b</sup>, and Zhongmin Liu <sup>a\*</sup>  
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*React.Kinet.Catal.Lett. Vol. 93, No. 1, 11–17 (2008) 10.1007/s11144-008-5155-3*
- G 87. **Single-Crystalline La<sub>0.6</sub>Sr<sub>0.4</sub>CoO<sub>3-d</sub> Nanowires/Nanorods Derived Hydrothermally Without the Use of a Template: Catalysts Highly Active for Toluene Complete Oxidation**  
 Jiguang Deng a), Lei Zhang a), Hongxing Dai a), Hong He a), Chak Tong Au b)  
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*Springer Science+Business Media, LLC 2008 DOI 10.1007/s10562-008-9422-8*
- G 88. **On the Synergy Effect in MoO<sub>3</sub>–Fe<sub>2</sub>(MoO<sub>4</sub>)<sub>3</sub> Catalysts for Methanol Oxidation to Formaldehyde**  
 Emma Söderhjelm a), Matthew P. House b), Neil Cruise a), Johan Holmberg c), Michael Bowker b), Jan-Olov Bovin d), Arne Andersson e).  
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*Springer Science+Business Media, LLC 2008 DOI 10.1007/s11244-008-9112-1*

- G 89. **Promotion Effects and Mechanism of Alkali Metals and Alkaline Earth Metals on cobalt#Cerium Composite Oxide Catalysts for N<sub>2</sub>O Decomposition**  
part 1  
Li Xue, Hong He, Chang Liu, Changbin Zhang, and Bo Zhang  
Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, 18 Shuangqing Road, Beijing 100085, PR China  
*Environ. Sci. Technol.*, **2009**, 43 (3), 890-895 • DOI: 10.1021/es801867y • Publication Date (Web): 05 January 2009
- G 89. Supporting Information:**Promotion effects and mechanism of alkali metals and alkaline earth metals on cobalt-cerium composite oxide catalysts for N<sub>2</sub>O decomposition**  
part 2  
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Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, 18 Shuangqing Road, Beijing 100085, PR China  
*Environ. Sci. Technol.*, **2009**, 43 (3), 890-895 • DOI: 10.1021/es801867y • Publication Date (Web): 05 January 2009
- G 90. **Investigation of Pt catalytic effects on carbon support corrosion of the cathode catalyst in PEM fuel cells using DEMS spectra**  
Wei Li, Alan M. Lane  
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(2009), doi:10.1016/j.elecom.2009.04.001