

## Publication 2013

Nos ref.	Titre	Auteur	Revue	Vol.	Issue	Pages
2013- 01	Design of Mixed PEO/PAA Brushes with Switchable Properties Toward Protein Adsorption	MF. Delcroix, GL. Huet, T. Conard, S. Demoustier-Champagne, FE. Du Prez, <u>J. Landoulsi</u> , CC. Dupont-Gillain*	Biomacromolecules	14	1	215-225
2013- 02	Bimetallic Au-Pd catalysts for selective hydrogenation of butadiene: Influence of the preparation method on catalytic properties	<u>N. El Kolli</u> , <u>L. Delannoy</u> , <u>C. Louis</u> *	Journal of Catalysis	297		79-92
2013- 03	Preparation of thin film gold based catalysts for oxidation reactions in liquid and gas phases	<u>A.-F. Lamic-Humblot</u> *, P. Barthe, G. Guzman, <u>L. Delannoy</u> , <u>C. Louis</u>	Thin Solid Films	527		96-101
2013- 04	HRTEM and STEM-HAADF characterisation of Au-TiO <sub>2</sub> and Au-Al <sub>2</sub> O <sub>3</sub> catalysts for a better understanding of the parameters influencing their properties in CO oxidation	<u>L. Delannoy</u> , RL. Chantry, <u>S. Casale</u> , ZY. Li, Y. Borensztein, <u>C. Louis</u> *	Physical Chemistry Chemical Physics	15	10	3473-3479
2013- 05	Structure, orientation and stability of lysozyme confined in layered materials	S. Balme*, R. Guegan*, JM. Janot, <u>M. Jaber</u> , M. Lepoitevin, P. Dejardin, X. Bourrat, M. Motelica-Heino	Soft Matter	9	11	3188-3196
2013- 06	Selective terminal function modification of SAMs driven by low-energy electrons (0-15 eV)	J. Houplin, L. Amiaud, <u>V. Humblot</u> , I. Martin, E. Matar, R. Azria, <u>C.-M. Pradier</u> , A. Lafosse*	Physical Chemistry Chemical Physics	15	19	7220-7227
2013- 07	Direct AFM force mapping of surface nanoscale organization and protein adsorption on an aluminum substrate	<u>J. Landoulsi</u> *, V. Dupres	Physical Chemistry Chemical Physics	15	21	8429-8440
2013- 08	Elaboration, activity and stability of silica-based nitroaromatic sensors	<u>D. Mercier</u> , F. Pereira, <u>C. Methivier</u> , P. Montmeat, L. Hairault, <u>C.-M. Pradier</u> *	Physical Chemistry Chemical Physics	15	31	12911-12919
2013- 09	A comparative study of the catalysis of peptide bond formation by oxide surfaces	<u>J.-F. Lambert</u> , <u>M. Jaber</u> , T. Georgelin, L. Stievano	Physical Chemistry Chemical Physics	15	32	13371-13380
2013- 10	Modification of TiO <sub>2</sub> by bimetallic Au-Cu nanoparticles for wastewater treatment	Z. Hai, N. El Kolli, D.-B. Uribe, <u>P. Beaunier</u> , M. Jose-Yacaman, J. Vigneron, A. Etcheberry, S. Sorgues, C. Colbeau-Justin, J.-F. Chen, H. Remita*	Journal of Materials Chemistry A	1	36	10829-10835
2013- 11	Au/xCeO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> catalysts for VOC elimination: oxidation of 2-propanol	<u>P. Lakshmanan</u> , <u>L. Delannoy</u> , <u>C. Louis</u> , N. Bion, J.-M. Tatibouet*	Catalysis Science & Technology	3	11	2918-29-25
2013- 12	Influence of natural adsorbates of magnesium oxide on its reactivity in basic catalysis	D. Cornu, H. Petitjean, G. Costentin, H. Guesmi, <u>J.-M. Krafft</u> , H. Lauron-Pernot*	Physical Chemistry Chemical Physics	15	45	19870-19878
2013- 13	Theoretical insights on the effect of reactive gas on the chemical ordering of gold-based alloys	<u>H. Guesmi</u> *	Gold Bulletin	46	4	213-219
2013- 14	Understanding of the oxygen activation on ceria- and ceria/alumina-supported gold catalysts: a study combining <sup>18</sup> O/ <sup>16</sup> O isotopic exchange and EPR spectroscopy	<u>P. Lakshmanan</u> , <u>F. Averseng</u> , N. Bion*, <u>L. Delannoy</u> , JM. Tatibouet, <u>C. Louis</u>	Gold Bulletin	46	4	233-242
2013- 15	Optimizing the immobilization of gold nanoparticles on functionalized silicon surfaces: amine- vs thiol-terminated silane	<u>M. Ben Haddada</u> , J. Blanchard, S. Casale, J.-M. Krafft, A. Vallee, <u>C. Methivier</u> , S. Boujday*	Gold Bulletin	46	4	335-341

2013-	16	Hydrogen and syngas production by methane dry reforming on SBA-15 supported nickel catalysts: On the effect of promotion by Ce <sub>0.75</sub> Zr <sub>0.25</sub> O <sub>2</sub> mixed oxide	A. Albarazi, <u>P. Beaunier</u> , P. Da Costa*	International Journal OF Hydrogen Energy	38	1	127-139
2013-	17	Esterification of fatty acids with alcohols over niobium phosphate	IAL. Bassan, DR. Nascimento, RAS. San Gil, MIP. da Silva, CR. Moreira, WA. Gonzalez, AC. Faro, <u>T. Onfroy</u> , ER. Lachter*	Fuel Processing Technology	106		619-624
2013-	18	Role of oxygen vacancies in the basicity of ZnO: From the model methylbutynol conversion to the ethanol transformation application	<u>C. Drouilly</u> , J.-M. Krafft, F. Averseng, H. Lauron-Pernot, D. Bazer-Bachi, C. Chizallet, V. Lecocq, G. Costentin*	Applied Catalysis A-General	453		121-129
2013-	19	A Molecular Picture of the Adsorption of Glycine in Mesoporous Silica through NMR Experiments Combined with DFT-D Calculations	<u>N. Folliet</u> , Nicolas, C. Gervais*, D. Costa, G. Laurent, F. Babonneau, L. Stievano, J.-F. Lambert, F. Tielens*	Journal OF Physical Chemistry C	117	8	4104-4114
2013-	20	ZSM-5/SBA-15 microporous/mesoporous composites prepared by a microwave-assisted zeolitisation of Al-SBA-15 mesoporous solids	S. Habib, <u>F. Launay*</u> , H. El Zakhem, M. Mazaj, F. Guenneau, <u>P. Beaunier</u> , D. Brouri, NN. Tusar, V. Kaucic, A. Gedeon	Materials Research Bulletin	48	3	1288-1295
2013-	21	Inhalation of uranium nanoparticles: Respiratory tract deposition and translocation to secondary target organs in rats	F. Petitot*, P. Lestaevel, E. Tournalias, C. Mazzucco, S. Jacquinet, B. Dhieux, O. Delissen, BB. Tournier, F. Gensdarmes, <u>P. Beaunier</u> , I. Dublineau	Toxicology Letters	217	3	217-225
2013-	22	Selective hydrodechlorination of 1,2-dichloroethane on NiSiBEA zeolite catalyst: Influence of the preparation procedure on a high dispersion of Ni centers	<u>R. Baran</u> , II. Kaminska, A. Srebowata*, <u>S. Dzwigaj*</u>	Microporous and Mesoporous Materials	169		120-127
2013-	23	Particular characteristics of silver species on Ag-exchanged LTL zeolite in K and H form	R. Bartolomeu, R. Bertolo, <u>S. Casale</u> , A. Fernandes, C. Henriques, P. da Costa, F. Ribeiro*	Microporous and Mesoporous Materials	169		137-147
2013-	24	Covalent Grafting of Organic-Inorganic Polyoxometalates Hybrids onto Mesoporous SBA-15: A Key Step for New Anchored Homogeneous Catalysts	R. Villanneau*, A. Marzouk, Y. Wang, A. Ben Djamaa, G. Laugel, A. Proust, F. Launay*	Inorganic Chemistry	52	6	2958-2965
2013-	25	Approach for Plasmonic Based DNA Sensing: Amplification of the Wavelength Shift and Simultaneous Detection of the Plasmon Modes of Gold Nanostructures	<u>J. Spadavecchia*</u> , A. Burras, J. Lyskawa, P. Woisel, W. Laure, <u>C.-M. Pradier</u> , R. Boukherroub, S. Szunerits*	Analytical Chemistry	85	6	3288-3296
2013-	26	A comparative study of the thermal behaviour of length-fast chalcedony, length-slow chalcedony (quartzine) and moganite	P. Schmidt*, A. Slodczyk, V. Lea, A. Davidson, S. Paud, P. Sciau	Physics and Chemistry of Minerals	40	4	331-340
2013-	27	Origins of the deactivation process in the conversion of methylbutynol on zinc oxide monitored by operando DRIFTS	<u>C. Drouilly</u> , J.-M. Krafft, F. Averseng, H. Lauron-Pernot, D. Bazer-Bachi, C. Chizallet, V. Lecocq, G. Costentin	Catalysis Today	205		67-75
2013-	28	On the Detrimental Effect of Tungstates on the n-C <sub>10</sub> -SCR of NO <sub>x</sub> on Ag/γ-Al <sub>2</sub> O <sub>3</sub>	J. Blanchard, R.P. Doherty, HY. Law, C. Methivier, C. Thomas*	Topics in Catalysis	56	1 8	134-139
2013-	29	Surface Reduction Mechanism of Cerium-Gallium Mixed Oxides with Enhanced Redox Properties	J. Vecchiotti, S. Collins, WQ. Xu, L. Barrio, D. Stacchiola, M. Calatayud, F. Tielens, JJ. Delgada, A. Bonivardi*	Journal of Physical Chemistry C	117	17	8822-8831
2013-	30	Synthesis of texturally biphasic mesoporous carbon-silica composites and carbons	CF. Santa, <u>M. Jaber</u> , JL. Guth, L. Sierra*	Microporous and Mesoporous Materials	173		53-63

2013-	31	Silica Surface Features and Their Role in the Adsorption of Biomolecules: Computational Modeling and Experiments	A. Rimola, D. Costa, M. Sodupe, <u>J.-F. Lambert</u> , P. Ugliengo*	Chemical Reviews	113	6	4216-4313
2013-	32	Maghemite nanoparticles and maghemite/silica nanocomposite microspheres as magnetic Fenton catalysts for the removal of water pollutants	N. Ferroudj, J. Nzimoto, A. Davidson, D. Talbot, E. Briot, V. Dupuis, A. Bee, MS. Medjram, S. Abramson*	Applied Catalysis B-Environmental	136		43344
2013-	33	Probing the Orientation of beta-Lactoglobulin on Gold Surfaces Modified by Alkyl Thiol Self-Assembled Monolayers	<u>V. Lebec</u> , <u>J. Landoulsi</u> , <u>S. Boujday</u> , C. Poleunis, <u>C.-M. Pradier</u> , A. Delcorte*	Journal Of Physical Chemistry C	117	22	11569-11577
2013-	34	Chiral Recognition of L-Gramicidine on Chiraly Methionine-Modified Au(111)	<u>V. Humblot*</u> , <u>C.-M. Pradier</u>	Journal of Physical Chemistry Letters	4	11	1816-1820
2013-	35	Incorporation of Silver Atoms into the Vacant T-Atom Sites of the Framework of SiBEA Zeolite as Mononuclear Ag(I) Evidenced by XRD, FTIR, NMR, DR UV-vis, XPS, and TPR	<u>S. Dzwigaj*</u> , Y. Millot, JM. Krafft, N. Popovych, P. Kyrienko	Journal of Physical Chemistry C	117	24	12552-12559
2013-	36	Vibrational and electrical investigations of a uniaxially stretched polystyrene/carbon nanotube composite	L. Bokobza*, G. Garnaud, <u>P. Beaunier</u> , JL. Bruneel	Vibrational Spectroscopy	67		6-13
2013-	37	BEA zeolite modified with iron as effective catalyst for N <sub>2</sub> O decomposition and selective reduction of NO with ammonia	P. Boron, L. Chmielarz*, J. Gurgul, K. Latka, T. Shishido, <u>J.-M. Krafft</u> , <u>S. Dzwigaj*</u>	Applied Catalysis B-Environmental	138		434-445
2013-	38	An easy way to obtain thin gold film on silica glass substrate by chemical method	<u>A.-F. Lamic-Humblot*</u> , <u>S. Casale</u> , C. Léger, S. Alperine, <u>C. Louis</u>	Thin Solid Films	539		151-153
2013-	39	Improved activity and stability in CO oxidation of bimetallic Au-Cu/TiO <sub>2</sub> catalysts prepared by deposition-precipitation with urea	A. Sandoval, <u>C. Louis</u> , R. Zanella*	Applied Catalysis B-Environmental	140		363-377
2013-	40	Interaction of Zn-II Porphyrin with TiO <sub>2</sub> Nanoparticles: From Mechanism to Synthesis of Hybrid Nanomaterials	<u>J. Spadavecchia</u> , C. Methivier, <u>J. Landoulsi*</u> , <u>C.-M. Pradier</u>	Chemphyschem	14	11	2462-2469
2013-	41	BSA adsorption on aliphatic and aromatic acid SAMs: Investigating the effect of residual surface charge and sublayer nature	<u>A. Vallee</u> , <u>V. Humblot*</u> , R. Al Housseiny, <u>S. Boujday</u> , <u>CM. Pradier</u>	Colloids and Surfaces B-Biointerfaces	109		136-142
2013-	42	Seeds-induced fluoride media synthesis of nanosized zeolite Beta crystals	Y. Kalvachev*, <u>M. Jaber</u> , V. Mavrodinova, L. Dimitrov, D. Nihtianova, V. Valtchev	Microporous and Mesoporous Materials	177		127-134
2013-	43	Mononuclear pseudo-tetrahedral V species of VSiBEA zeolite as the active sites of the selective oxidative dehydrogenation of propane	<u>K. Chalupka</u> , <u>C. Thomas*</u> , Y. Minot, <u>F. Averseng</u> , <u>S. Dzwigaj</u>	Journal of Catalysis	305		46-55
2013-	44	Surface Segregation of Pd from TiO <sub>2</sub> -Supported AuPd Nanoalloys under CO Oxidation Conditions Observed In situ by ETEM and DRIFTS	<u>L. Delannoy*</u> , S. Giorgio, J.-G. Mattei, C.-R. Henry, <u>N. El Kolli</u> , C. Méthivier, <u>C. Louis</u>	Chemcatchem	5	9	2707-2716
2013-	45	Vapor phase synthesis of cyclopentanone over nanostructured ceria-zirconia solid solution catalysts	P. Sudarsanam, L. Katta, <u>G. Thrimurthulu</u> , BM. Reddy*	Journal of Industrial and Engineering Chemistry	19	5	1517-1524
2013-	46	On the origin of the optimum loading of Ag on Al <sub>2</sub> O <sub>3</sub> in the C <sub>3</sub> H <sub>6</sub> -SCR of NO <sub>x</sub>	<u>T. Chaieb</u> , L. Delannoy, C. Louis, C. Thomas*	Applied Catalysis B-Environmental	142-143		780-784
2013-	47	Formation of Activated Biomolecules by Condensation on Mineral Surfaces - A Comparison of Peptide Bond Formation and Phosphate Condensation	<u>T. Georgelin</u> , <u>M. Jaber</u> , <u>H. Bazzi</u> , <u>J.-F. Lambert*</u>	Origins of Life and Evolution of Biospheres	43	4-5	429-443

2013-	48	A simple thermodynamic approach to predict responses from polymer-coated quartz crystal microbalance sensors exposed to organic vapors	P. Palmas*, J. Klingenfus, B. Vedeau, E. Girard, P. Montmeat, L. Hairault, <u>C.-M. Pradier, C. Méthivier</u>	Talanta	115		616-623
2013-	49	Catalytic activity of HAIBEA and Ni(x)HAIBEA zeolites in hydrogen-assisted dehydrochlorination of 1,2-dichloroethane into vinyl chloride monomer	<u>R. Baran, A. Srebowata, Il. Kaminska, D. Lomot, S. Dzwigaj*</u>	Microporous and Mesoporous Materials	180		209-219
2013-	50	Effects of Pd on Catalysis by Au: CO Adsorption, CO Oxidation, and Cyclohexene Hydrogenation by Supported Au and Pd-Au Catalysts	T. Ward, <u>L. Delannoy</u> , R. Hahn, S. Kendell, C.J. Pursell, <u>C. Louis</u> , BD. Chandler*	ACS Catalysis	3	11	2644-2653
2013-	51	An Unstable Paramagnetic Isopolyoxomolybdate Intermediate Non-Homogeneously Reduced at Different Sites and Trapped in a Host Based on Chemical Adaptability	A. Merca, S. Garai, H. Bogge, ETK. Haupt, A. Ghosh, X. Lopez, J.-M. Poblet, <u>F. Averseng, M. Che, A. Muller*</u>	Angewandte Chemie-International Edition	52	45	11765-11769
2013-	52	Development of novel anti-Kv 11.1 antibody-conjugated PEG-TiO <sub>2</sub> nanoparticles for targeting pancreatic ductal adenocarcinoma cells	A. Sette, J. Spadavecchia, <u>J. Landoulsi, S. Casale</u> , B. Haye, O. Crociani, A. Arcangeli*	Journal of Nanoparticle Research	15	12	UNSP 2111
2013-	53	A comparative <i>in situ</i> TEM and UV-visible spectroscopic study of the thermal evolution of Ag species dispersed on Al <sub>2</sub> O <sub>3</sub> and NaX zeolite supports	<u>E. Sayah, D. Brouri, P. Massiani*</u>	Catalysis Today	218		10-17
2013-	54	Nobel Prize in chemistry 1912 to Sabatier: Organic chemistry or catalysis?	<u>M. Che*</u>	Catalysis Today	218		162-171
2013-	55	Evidence of Pd segregation and stabilization at edges of AuPd nano-clusters in the presence of CO: A combined DFT and DRIFTS study	<u>B. Zhu, G. Thrimurthulu, L. Delannoy, C. Louis, C. Mottet, J. Creuze, B. Legrand, H. Guesmi*</u>	Journal of Catalysis	308		272-281
2013-	56	Hydration Dynamics for Vanadia/Titania Catalysts at High Loading: A Combined Theoretical and Experimental Study	AE. Lewandowska*, M. Calatayud*, <u>F. Tielens</u> , MA. Banares	Journal of Physical Chemistry C	117	48	25535-25544
2013-	57	Homogeneous and Heterogeneous Catalysis for the Synthesis of Cyclic and Polymeric Carbonates from CO <sub>2</sub> and Epoxides: A Mechanistic Overview	<u>G. Laugel, CC. Rocha, P. Massiani, T. Thomas, F. Launay</u>	Advanced Chemistry Letters	1		195-214
2013-	58	Catalytic activity and thermostability of enzymes immobilized on silanized surface: Influence of the crosslinking agent	<u>N. Aissaoui, J. Landoulsi, L. Bergaoui, S. Boujday, J.-F. Lambert*</u>	Enzyme and Microbial Technology	52	6-7	336-343
2013-	59	Sustainable production of acrolein : effects of reaction variables, modifiers doping and ZrO <sub>2</sub> origin on the performance of WO <sub>3</sub> /ZrO <sub>2</sub> catalyst for the gas-phase dehydration of glycerol	SG Chai, L. Tao, <u>J. Vedrine</u> , B. Xu*	RSC Advances	4		4619
2013-	60	Inorganic Phosphate and Nucleotides on Silica Surface: Condensation, Dismutation, and Phosphorylation	<u>T. Georgelin, M. Jaber, T. Onfroy, AA. Hargrove, F. Costa-Torro, JF. Lambert*</u>	Journal of Physical Chemistry C	117	24	12579-12590