Six topics

Topic 1 : Dielectrics
Topic 2 : Organic Chemistry
Topic 3 : Catalysis
Topic 4 : Polymers and Composites
Topic 5 : Biochemistry, Natural Products and Environment
Topic 6 : Inorganics and Ceramics

Main lecture : (60 minutes)
Lecture : (45 minutes)
Oral communication : (15 or 20 minutes)
Poster presentation : (3 or 5 minutes)

(*) Reference of papers “xx.(y.Z)” with xx : paper number, y : topic number and Z as L for a lecture, C for an oral communication and P for a poster presentation.

Monday, 4 September 2000  (Morning)

11.00 - 12.00 : Opening Session

• “The quest for excellence in microwaves and chemistry”
Ricky Metaxas, EUG, Engineering Department, University of Cambridge, England, UK, and President of AMPERE

• “Technical organization of the Conference”
Albert Gourdenne, Laboratoire Catalyse, Chimie Fine et Polymères, ENSCT, Toulouse, France, and Chairman of the Conference

12.30 - 14.30 : Lunch Break (on site)
Monday, 4 September 2000  (Afternoon)

14.30 - 15.00 : Keynote address of the Chairman

■ "Chemistry and microwaves : state of the art"
Albert Gourdenne, Chairman of the Conference

15.00 - 17.00. Topic 1 - Dielectrics
Chair : Ricky Metaxas, Cambridge, United Kingdom

15.00 - 16.00 : Main lecture

01 (L1) - ■ "Electrical high frequency properties of matter : classical and modern measurement techniques".
Guglielmo d'Ambrosio, Microwave Interactions Division, Dipartimento di Ingegneria Elettronica e delle Telecomunicazioni, Università di Napoli Federico II, Napoli, Italy

16.00 - 17.00 : Session of communications

02 (L,C) - ■ "Dielectric measurement of ceramic compact bodies by millimeter wave spectroscopy".
S. Sano, Y Hotta, T. Banno and A. Tsuzuki, National Industrial Research Institute, Nagoya, Japan
S. Miyake, Y. Makino, T. Ueno, Osaka University, Osaka, Japan

03 (L,C) - ■ "Dielectric properties of polymers and composites revisited".
A Gourdenne, Laboratoire Catalyse, Chimie Fine et Polymères, Ecole Nationale Supérieure de Chimie de Toulouse, Toulouse, France

17.30 - 19.00 : Welcome reception (on site)
Tuesday, 5 September 2000  (Morning)

08.30 - 10.00. Topic 2. Organic Chemistry (I) 021
Chair : Jack. Hamelin, Rennes, France

08.30 - 09.15 : Lecture
04 (2.L) - "Microwave assisted organic reactions at atmospheric pressure"
Richard Gedye, Department of Chemistry & Biochemistry,
Laurentian University, Sudbury, Ontario, Canada

09.15 - 10.00 : Lecture
05 (2.L) - "Solvent-free organic syntheses using microwaves"
Rajender S. Varma, National Risk Management Research Laboratory,
U.S. Environmental Protection Agency, Cincinnati, Ohio, USA

10.00 - 10.30. Coffee Break

10.30 - 12.30. Topic 3 : Catalysis (I)
Chair : Antonio de la Hoz, Ciudad Real, Spain

10.45 - 11.45 : Main Lecture
06 (3.L) - "Microwave catalysis: a reflection on a decade of achievements and
a look to the 21st Century"
Gary Bond, Department of Chemistry
University of Central Lancashire, Preston, United Kingdom

11.45 - 12.30 : Lecture
07 (3.L) - "Microwave activation of catalytic reactions"
Milan Häjek, Institute of Chemical Process Fundamentals
Academy of Sciences of the Czech Republic, Prague, Czech Republic

12.30 - 14.30 : Lunch Break (on site)
Tuesday, 5 September, 2000  (Afternoon)

14.30 - 15.30. Topic 4 : Polymers and Composites (I)
Chair : John Jones, Guildford, United Kingdom

14.30 - 15.30 : Main lecture
08 (4.L) -  "Microwave (2 450 MHz) or radiofrequency (27.12 MHz) activation of polymerization reactions"
Albert Gourdenne, Laboratoire Catalyse, Chimie Fine et Polymères, Ecole Nationale Supérieure de Chimie de Toulouse, Toulouse, France

15.30 - 16.30. Topic 6. Inorganics and Ceramics (I)
Chair : Didier Stuerga, Dijon, France

15.30 -16.30 : Main lecture
09 (6.L) -  "Application of microwaves (2.45 GHz) to processing of metallic, ceramic and composite materials"
Monika Willert-Porada, Materials Processing Department, Bayreuth University, Bayreuth, Germany

16 30 -17.00 : Coffee Break

17.00 - 18.30.Topic 6 : Inorganics and Ceramics (II)
Chair : Yuji Wada, Osaka, Japan

17.00 -17.45 : Lecture
10 (6.L) -  "Microwave enhanced self-propagating, high-temperature synthesis of ceramic powders"
Jon Binner¹ and Jinhui Peng²
(1) : Institute for Polymer Technology and Materials Engineering, Loughborough University Loughborough, Leicestershire, United Kingdom
(2) : Department of Metallurgy, Kunming University of Science and Technology, Kunming, Yunnan, P. R. China

17.45 -18.30 : Lecture
11 (6.L) -  "Application of microwave radiation to glasses and glass-ceramics"
Cristina Leonelli, Department of Chemistry, Faculty of Engineering, University of Modena and Reggio Emilia, Modena, Italy
Wednesday, 6 September 2000  (Morning)

08.00 - 10.00. Topic 2 : Organic Chemistry (II)  Concurrent Session
Chair : C. Oliver Kappe, Graz, Austria

Organic Chemistry in Homogeneous Media : Oral communications

12 (2.C) - "A new model to explain the changes in the selectivity under microwave irradiation versus classical heating"
F. Langa 1, P. Pilar de la Cruz 1, A. de la Hoz 2, E. Espildora 1, F. P. Cossio 3 and B. Lecea 4
(1) : Facultad de Ciencias, Universidad de Castilla-La Mancha, Toledo, Spain
(2) : Facultad de Quimica, Universidad de Castilla-La Mancha, Ciudad Real, Spain
(3) : Facultad de Quimica, Universidad del Pais Vasco, San Sebastien-Dontostia, Spain
(4) : Facultad de Farmacia, Universidad del Pais Vasco, Vittoria-Gasteiz, Spain

13 (2.C) - "Chalcones synthesis and their reactivity towards nitromethane under microwave irradiation in solvent-free conditions"
D. Michaud, E. Le Gall, K. Guillou, F. Texier-Boullet and J. Hamelin,
Synthèse et Electrosynthèse Organiques, University of Rennes I, Rennes, France

14 (2.C) - "Rate and yield enhancements in the microwave-mediated Biginelli dihydropyrimidine synthesis : myth or reality ?"
A. Stadler and C. O. Kappe, Institute of Chemistry, Karl-Franzens University, Graz, Austria

15 (2.C) - "Synthesis of new benzylidenecineole derivatives, as potential UV sunscreens, using solvent-free conditions and microwaves technology"
E. Mariani 1, C. Villa 1, M.T. Genta 1, A. Bargagna 1, A. Loupy 2 and A. Petit 2
(1) : Dipartimento di Scienze Farmaceutiche dell’Universtà, Genova, Italy
(2) : Institut de Chimie Moléculaire d’Orsay, Paris-South University, Orsay, France

16 (2.C) - "Synthesis of 3-isoxazolo[60]fullerene dyads under microwave irradiation irradiation"
F. Langa 1, P. de la Cruz 1, E. Espildora 1 and A. de la Hoz 2,
(1) : Facultad de Ciencias del Medio Ambiente, Universidad de Castilla-La Mancha, Spain
(2) : Facultad de Ciencias Químicas, Universidad de Castilla-La Mancha, Spain

17 (2.C) - "New microwave-enhanced deuteration/tritiation studies"
J. R. Jones and S. Y. Lu, Chemistry Department, School of Physics and Chemistry, University of Surrey, United Kingdom

18 (2.C) - "Microwave assisted oxidation processes using hydrogen peroxide as an oxidant"
D. Bogdal and M. Lukasiewicz, Department of Chemistry, Politechnika Krakowska, Krakov, Poland.
Organic Chemistry in Homogeneous Media: Poster presentations

19 (2.P) - "Esterification reactions under microwave irradiation in homogeneous media"  
G. Salmoria¹, E. Dall’Oglio², E. Rosa² and C. Zucco²,  
(1): Laboratoire d’Electronique Microonde, ENSEEIHT, Toulouse, France  
(2): Departamento de Quimica, Universidade de Santa Catarina, Santa Catarina, Brazil

20 (2.P) - "Study of dielectric properties of substances involved in a chemical reaction. The Friedel-Craft acylation case"  
G. Salmoria¹, J. Marquie² and M. Audhuy¹,  
(1): Laboratoire d’Electronique Microonde, ENSEEIHT, Toulouse, France  
(2): Héterochemie Fondamentale et Appliquée, Université Paul Sabatier, Toulouse, France

21 (2.P) - "Synthesis of benzofuran derivatives under irradiation in dry media"  
D. Bogdal and M. Warzala, Department of Chemistry, Politechnika Krakowska, Krakow, Poland

22 (2.P) - "Microwave synthesis of 9-substituted acridine derivatives"  
E. Veverková, M. Nosková and Š. Toma, Faculty of Natural Sciences, Comenius University, Bratislava, Slovakia

Wednesday, 6 September 2000 (Morning)

08.00 - 10.00. Topic 6: Inorganics and Ceramics (II)  
Chair: Wilhem Schwieger, Erlangen, Germany

Inorganics and Ceramics: Oral communications

23 (6.C) - "Hot-spot voltammetry: microwave-enhanced electrochemical experiments under extreme conditions"  
F. Marken¹, B. A. Coles² and R. G. Compton²,  
(1): Department of Chemistry, Loughborough University, Loughborough, United Kingdom  
(2): Physical & Theoretical Chemistry Laboratory, Oxford University, Oxford, United Kingdom

24 (6.C) - "The effect of microwave radiation on ion diffusion rates"  
G. Whittaker and L. Cronin, Department of Chemistry, University of Edinburgh, Edinburgh, Scotland, UK

25 (6.C) - "Microwave reactor for in-situ X-ray diffraction measurements. Evidence of non-thermal effects in silver iodide"  
G. Robb, R. Djandazov, G. Whittaker and A. Harrison, Department of Chemistry, University of Edinburgh, Edinburgh, Scotland, UK
26 (6.C) - “Investigation of line-breadth values of XRD-Spectra for valuation of microwave treated zeolite spectra” P. 299
M. Hasznos-Nezdei 1, E. Pallai-Varsányi 1 and S. Szabo 2,
(1) : Research Institute of Chemical and Process Engineering, University of Kaposvar, Veszprém, Hungary
(2) : Department of Earth and Environmental Science, University of Veszprém, Hungary

27 (6.C) - “Microwave irradiation in chemistry and analytical chemistry of Platinum group metals” P. 303
A. Buslaev 1 and T. Buslaeva 2,
(1) : V. I. Vernadsky Institute of Geochemistry and Analytical Chemistry, Moscow, Russia
(2) : M. V. Lomonosov Fine Chemical Technology Institute, Moscow, Russia

Inorganics and Ceramics : Poster presentations

28 (6.P) - “Microwave activated voltammetry : the thermally enhanced anodic stripping detection of cadmium” P. 307
F. Marken 1, Y. C. Tsai 2, S. L. Matthews 2, B. A. Coles 2 and R. G. Compton 2,
(3) : Department of Chemistry, Loughborough University, Loughborough, United Kingdom
(4) : Physical & Theoretical Chemistry Laboratory, Oxford University, Oxford, United Kingdom.

29 (6.P) - “Electromagnetic Properties of ceramic materials during microwave processing” P.311
G. V. Salmoria 1 M. Audhuy 1, M. M. da Silva 2 and R. G. Gerônimo 2,
(1) : Laboratoire d’Electronique Microonde, ENSEEIHT, Toulouse, France
(2) : Departamento do Eng. Materiais, Universidade do Extremo Sul Catarinense, Criciúma, Brazil.

30 (6.P) - “Microwave assisted fast dewaxing of technical ceramics” P. 315
P. Veronesi 1, M. Orlandi 2, C. Leonelli 1 and G. C. Pellacani 1,
(1) : University of Modena e Reggio Emilia, Modena, Italy
(2) : Bettini S. p. A., Lecco, Italy.

31 (6.P) - “Microwave processing of various iron and manganese oxides” P.319
I. D. Youngson 1, T. Kelso, A.G. Whittaker 1 and A. HarrisonT.,
Department of Chemistry, University of Edinburgh, Edinburgh, Scotland.

10.00 - 10.30. Coffee Break
Wednesday, 6 September 2000 (Morning)

10.30 - 12.30. Topic 2: Organic Chemistry (III)  Concurrent Session
Chair: Fernando Langa, Toledo, Spain

Organic Chemistry in Heterogenous Media: Oral communications

32 (2.C) — "Microwave-assisted combinatorial chemistry. Some examples of high-speed solid-phase organic synthesis"
O. Kappe and A. Stadler, Institute of Chemistry, Karl-Franzens University, Graz, Austria

33 (2.C) — "Microwave Synthesis of Fullerene Structures"
N. Budraa, Jet Propulsion Laboratory, California Institute of Technology, Pasadena, United States of America

34 (2.C) — "Microwave-enhanced dehalogenation studies"
J. R. Jones¹, W. J. S. Lockley², S. Y. Lu¹ and S. F. Thompson²,
(1): Chemistry Department, School of Physics and Chemistry, University of Surrey, UK
(2): Medicinal Chemistry, AstraZeneca R&D Charnwood, Loughborough, UK

35 (2.C) — "The study of microwave effects on nucleophilic substitutions of triphenylphosphine and tributylphosphine with benzylic compounds"
B. Gotov¹, J. Cvengroš¹, S. Toma¹ and A. Loupy²,
(1): Faculty of Natural Science, Comenius University, Bratislava, Slovakia
(2): Institut de Chimie Moléculaire d’Orsay, Paris-South University, Orsay, France

36 (2.C) — "Microwave application in 1,3-dipolar cycloadditions and their influence upon formation of ether 1,3-oxazolidines or pyrrolidines"
M. Potacek and M. Travniecek, Faculty of Sciences, University of Brno, Czech Republic.

37 (2.C) — "Use of heterogeneous catalysis and microwave irradiation in an efficient one-pot synthesis of benzene derivatives via ring opening of Diels-Alder cycloadducts of substituted furans"
A de la Hoz¹, M. V. Gómez¹, J. A. Mayoral², A. Moreno¹, A. Sainz¹ and E. Vásquez¹,
(1): Facultad de Quimica, Universidad de Castilla- La Mancha, Ciudad Real, Spain
(2): Facultad de Ciencias, Universidad de Zaragoza, Zaragoza, Spain

38 (2.C) — "Microwave induced rearrangement in organic reactions (The case of Claisen & Fries)"
F. M. Moghaddam, Department of Chemistry, Sharif University of Technology, Tehran, Iran
Organic Chemistry in Heterogenous Media: Poster presentations

39 (2.P) - “Highly diastereoselective Michael addition of flavanone to its chalcone precursor under solvent-free conditions using microwaves”
T. Patonay 1, R. S. Varma 2, A. Vass 3, A. Levai 1 and J. Dudás 3,
(1) Department of Organic Chemistry, Faculty of Science, University of Debrecen, Debrecen, Hungary
(2) National Risk Management Research Laboratory, US Environmental Protection Agency, Cincinnati, Ohio, United States of America
(3) Research Institute of Chemical & Process Engineering, Pannon University of Agricultural Sciences, Veszprém, Hungary

40 (2.P) - “Selective synthesis of mono- and di-glyceride from triglyceride in presence of microwaves”
C. Mazzocchia 1, A. Kaddouri 1, G. Modica 2 and R. Nannicini 2,
(1) Industrial Chemistry and Chemical Engineering Department, Polytechnico di Milano, Milan, Italy
(2) E. N. E. A., Ispra, Varese, Italy

41 (2.P) - “Microwave (2.45 GHz) assisted hetero-Diels-Alder and retro-Diels-Alder reactions supported on graphite”
C. Laporte, A. Laporterie and B. Garrigues,
Hétérochimie Fondamentale et Appliquée, Université Paul Sabatier, Toulouse, France

42 (2.P) - “Solvent-free protection of carbonyl group over “Zeolite HX” under microwave irradiation”
M. S. Hashtroudi 1, M. Kasemzad 1 and S. Balalaie 2,
(1) Energy and Environment Department, Materials and Energy Research Center, Tehran, Iran
(2) Chemistry Department, K. N. Toosi University, Tehran, Iran

43 (2.P) - “One-pot preparation of coumarins by Knoevenagel condensation in solvent-free condition under microwave irradiation”
S. Balalaie and N. Nemati, Chemistry Department, K. N. Toosi University, Tehran, Iran

10.30 - 12.00. Topic 6: Inorganics and Ceramics (III) Concurrent Session
Chair: Cristina Siligardi, Modena, Italy

44 (6.C) - “Reaction mechanisms observed during microwave-initiated self propagating high-temperature synthesis (MISHS) of SiC powders”
T. Chudoba 1, W. Lojkowski 1, J. Binner 2, D. Kuzmenko 1,2, T. Cross 3,
(1) Unipress, High Pressure Research Center, Warsaw, Poland
(2) Institute for Polymer Technology and Materials Engineering, Loughborough University, Loughborough, United Kingdom
(1) Department of Electrical and Electronic Engineering, University of Nottingham, Nottingham, United Kingdom
45 (6.C) - "Microwave processing of oxide melts: a new tool in solid state chemistry"  
Ch Gerk and M. Willert - Porada, Materials Processing Department, Bayreuth University, Bayreuth, Germany

46 (6.C) - "Microwave calcination of mixture metal oxides used as ceramic pigments"  
G. V. Salmoria ¹, M. Audhuy ¹, M. M. da Silva Paula ¹ and R. J. Gerônimo ²,  
(1): Laboratoire d'Electronique Microonde, ENSEEIHT, Toulouse, France  
(2): Departamento do Eng. Materiais, Universidade do Extremo Sul Catarinense, Criciúma, Brazil

47 (6.C) - "Microwave synthesis of X-rays amorphous ferrites and the magnetic properties"  
T. Kimura, H. Takizawa, K. Uheda and T. Endo,  
Department of Materials Chemistry, Tohoku University, Sendai, Japan

12.30 - 14.30: Lunch Break (on site)

Wednesday, 6 September 2000 (Afternoon)

14.30 - 16.00. Topic 4: Polymers and composites (II)  
Chair: Luis Alberto Jermolovicius, Sao Paulo, Brazil

48 (4.C) - "A broad band microwave characterization of an epoxy-amine reactive system"  
G. d'Ambrosio ¹, M. Giordano ², L. Nicolais ², R. Massa ¹, M. D. Migliore ¹,  
G. Panariello ¹ and G. Vitolo ¹,  
(1): Microwave Interactions Division, Dipartimento di Ingegneria Elettronica e dell Telecomunicazioni, Università di Napoli Federico II, Napoli, Italy  
(2): Instituto per la Tecnologia dei Materiali Compositi, CNR, Napoli, Italy

49 (4.C) - "Alteration of styrene emulsion polymerization kinetics under microwave irradiation"  
L. A. Jermolovicius, B. Schneiderman and J. T. Senise, Instituto Mauá de Tecnologia, São Caetano do Sul, Brazil

50 (4.C) - "Electromagnetic properties measurements as a control of the microwave polymeric materials processing"  
G. V. Salmoria ¹, M. Audhuy ¹ and V. Soldi ²,  
(1): Laboratoire d'Electronique Microonde, ENSEEIHT, Toulouse, France  
(2): Laboratorio de Polímeros, Departamento de Química, Florianópolis, Brazil.
51 (4.C) - “A comparative study between thermal and microwave partially curing process of the epoxy resins”
H. Iovu 1, I. Calinescu 1, D. Martin 2 and E. Mateescu 2,
(1) : Politehnica, University of Bucharest, Bucharest, Romania
(2) : National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania.

52 (4.C) - “Synthesis of some aza[18] annulenes and poly-aza[18]annulenes (Polymer phtalocyanines) using microwaves”
C. Boscornea, I. Calinescu and C. Tarabasanu, Polytechnica University, Bucharest, Romania.

16.00 - 16.15. Coffee Break


Session 5.1 : Biochemistry and Natural Products
Chair : Pavel Kadlec, Prague, Czech Republic

Oral communications

53 (5.C) - “Effects of microwaves exposure Microwave (GSM- 900; CW 915 MHz) on ODC activity and polyamine levels in various in mice and rats”
B. Persson 1, L. Persson 2 and L. Salford 3,
Departments of 1 Medical Radiation Physics, 2 Molecular and Cellular Physiology and 3 Neurosurgery, Lund University, Lund, Sweden.

54 (5.C) - “Microwave effects on enzymes : research activity at the MIND”
G. d’Ambrosio and R. Massa, Microwave Interactions Division, Dipartimento di Ingegneria Elettronica e dell Telecomunicazioni, Università di Napoli Federico II, Napoli, Italy

55 (5.C) - “Controlling wet bubble disease of mushroom by using microwaves”
A. Oktay 1, O. A. Karabulut 2, A. Akman 1 and K. Ihan 2,
(1) : Microwave Research Group, Electronic Engineering Dept, Uludag University, Bursa, Turkey
(2) : Department of Plant Protection, Agriculture Faculty, Uludag University, Bursa, Turkey

56 (5.C) - “Microwave effect on microbial contaminations of several herbs”
E. Pallai, A. Vass and E. Szijjártó, Research Institute of Chemical and Process Engineering, University of Kaposvár, Veszprem, Hungary
57 (5.C) - "Effect of microwave treatment on physical and chemical changes of rice" P. 237
P. Kadlec, J. Kaasova, Z. Bubnik and V. Pour, Department of Carbohydrate Chemistry and Technology, Institute of Chemical Technology, Prague, Czech Republic

58 (5.C) - "Effect of germination and microwave treatment chemical composition of PEA" P. 241
P. Kadlec 1, A. Rubecová 1, J. Kaasová 1, M. V. L. Swaine 2, M. J. Swain 2, E. Pallai-Varsanyi 3 and A. Vass 3,
(1) : Department of Carbohydrate Chemistry and Technology, Institute of Chemical Technology, Prague, Czech Republic
(2) : Food Refrigeration and Process Engineering Center, University of Bristol, United Kingdom,
(3) : Research Institute of Chemical Engineering, University of Kaspovar, Vesprém, Hungary.

Poster presentations

59 (5.P) - "Microwave assisted extraction of calamus roots" P. 245
J. Germanus, H. Sonnenschein and P. Harting, Institut für Nichtklassische Chemie, University of Leipzig, Leipzig, Germany.

60 (5.P) - "Microwave assisted phosphorylation of lignocellulose - ion exchange materials on basis of wood" P. 249
H. Sonnenschein and R. Hampel, Institut für Nichtklassische Chemie, University of Leipzig, Leipzig, Germany.

Session 5.2 : Environment
Chair : Rajender S. Varma, Cincinnati, Ohio, USA

Oral communications

61 (5.C) - "Applications of microwave irradiation in environmental, synthetical and technical chemistry" P. 253
M. Nüchter 1, B. Ondruschka 1, S. Knecht 1, U. Müller 1 and K. Fisher 2,
(1) : Institut für Technische Chemie und Umweltchemie der Friedrich-Schiller-Universität Jena, Jena, Germany
(2) : Anorganische und Analytische Chemie der Universität Trier, Universitätsring, Trier, Germany

62 (5.C) - "A predictive model of heat and mass transfer phenomena in a VOC’s contaminated soil undergoing a microwave remediation" P. 257
D. Acierno 1, A. Barba 2 and M. d’Amore 2,
(1) : Dept of Materials and Production Engineering, Università di Napoli Frederico II, Napoli, Italy
(2) : Dept of Chemical and Food Engineering, University of Salerno, Italy
Poster presentations

63 (5.P) - "Development of a microwave sensitive ceramic filter for soot removal"
Y. Zhang and A. Bliek, Department of Chemical Engineering, University of Amsterdam, Amsterdam, The Netherlands

64 (5.P) - "Development of microwave-dryable, industrially-applied, waterborne polymers and coatings"
S. Barra, R. Terreux, A. Trapani, and D. Cabrol-Bass
(1): Research & Development Division, Rohm and Haas Company, Sophia Antipolis, France
(2): Université de Nice-Sophia Antipolis, Nice, France

20.00 - 23:00: Banquet of the Ampere Conference
Restaurant “Eden Beach Casino”
(at 400 meters from Palais des Congrès)

Thursday, 7 September 2000 (Morning)

08.00 - 10.00. Topic 3: Catalysis (II)

08.00 - 09.00: Catalysis in Homogeneous Media
Chair: James Thomas, Blacksburg, VA, USA

65 (3.C) - "Investigation on microwave utilization for the catalytic sulfonylation of aromatics"
J. Marquié, A. Lapoterie, G. Salmoria and N. Roques
(1): Hétérochimie Fondamentale et Appliquée, CNRS, Université Paul Sabatier, Toulouse, France
(2): Laboratoire Microonde, ENSEEIHT, Toulouse, France
(3): Rhodia Organique Fine, C.R.I.T. Carrières, Saint-Fons, France

66 (3.C) - "Rapid palladium-catalyzed internal vinylations and arylations utilizing microwave flash heating"
K. Vallin, M. Larhed and A. Hallberg, Department of Organic Pharmaceutical Chemistry, Uppsala Biomedical Center, Uppsala University, Uppsala, Sweden

67 (3.C) - "Synthesis of photo-sensitive metal complexes by microwave irradiation"
Takeko-Matsmura-Inoue and N. Yoshikawa,
Nara University of Education, Takabatake, Nara-shi, Japan

XIII
09.00 - 10.00. Catalysis in Heterogeneous Media
Chair: Saeed Balalaie, Tehran, Iran

Oral communications

68 (3.C) - “Thermal modeling of microwave-heated packed and fluidized beds for catalytic chemical reactions” P.147
J. R. Thomas, Mechanical Engineering Department, Virginia Polytechnic Institute & State University, Blacksburg, United States of America

69 (3.C) - “Solvent-free microwave enhanced Knoevenagel condensation of 3-isochromanone with aldehydes on inorganic solid materials” P. 153
A. Vass 1 and T. Lóránt 2,
(1): Research Institute of Chemical and Process Engineering, University of Kaposvar, Vezprém, Hungary
(2): Faculty of Medicine, University of Pécs, Pécs, Hungary

70 (3.C) - “Zeolite HY and Silicagel as new and efficient heterogeneous catalysts for the synthesis of triarylimidazoles and tetrasubstituted imidazoles under microwave irradiation” P. 157
S. Balalaie 1, A. Arabanian 1 and M. S. Hashtroudi 2,
(1): Department of Chemistry, K. N. Toosi University of Technology, Tehran, Iran
(2): Energy & Environmental Department, Material and Energy Research Center, Tehran, Iran

71 (3.C) - “Catalytic transformation of t-butylphenols under microwave irradiation in the presence of montmorillonite KSF” P. 161
M. T. Radoiu 1, J. Kurfiirstova 2 and M. Hájek 2
(1): National Institute for Lasers, Plasmas and Radiation Physics, Bucharest, Romania
(2): Institute of Chemical Process Fundamentals, Academy of Sciences of the Czech Republic, Prague, Czech Republic

Poster presentations

72 (3.P) - “Aromatic electrophilic substitution versus conjugate addition in the reaction of N-acetyl-α,β-didehydroalanine methyl ester with heterocyclic compounds under heterogeneous catalysis assisted by microwave irradiation” P. 165
A. de la Hoz 1, J. A. Mayoral 2, A. Moreno 1 and E. Vásquez 1,
(1): Facultad de Química, Universidad de Castilla-La Mancha, Ciudad Real, Spain
(2): Facultad de Ciencias, Universidad de Zaragoza, Zaragoza, Spain

73 (3.P) - “Kinetic study of a reaction to be run in a microwave irradiated system” P. 169
R. Carta, Dipartimento di Ingegneria Chimica i Materiali, Universita di Cagliari, Cagliari, Italy

74 (3.P) - “Microwave-enhanced hydrogen isotope exchange studies of heterocyclic compounds” P. 173
S. Anto a, G. S. Getvoldsen a, J. R. Harding b, J. R. Jones a, S.-Y. Lu a and J. C. Russell c
a. Chemistry Department, School of Physics and Chemistry, University of Surrey, UK
b. Astra Zeneca, Mereside, Alderley Park, Macclesfield, UK
c. Biocompatibles Ltd, Frensham Business Park, Farnham, UK

75 (3.P) - "Reagentless oxidation of benzoins with "Zeolite A" in solvent-free condition under microwaves"  P. 177
S. Balalaie 1, M. Golizeh 1 and M. S. Hashtroudi 2,
(1): Chemistry Department, K. N. Toosi University, Tehran, Iran
(2): Energy and Environment Department, Materials and Energy Research Center, Tehran, Iran

76 (3.P) - "Microwave-assisted selective oxidation of benzylalcohol in solventless systems using claycop"  P. 181
I. Calinescu 1, L. Papahagi 1, H. Iovu 1 and D. Martin 2,
(1): Politehnica University of Bucharest, Bucharest, Romania
(2): National Institute for Laser, Plasma and Radiation Physics, Bucharest, Romania

10.00 10.30 : Coffee Break

10.30 - 12.00. Topic 6 : Inorganics and Ceramics (III)
Chair : Elizabeth Pallai, Veszprem, Hungary

77 (6.C) - "Sintering of glass powders by microwave heating"  P. 339
A. Siligardi, M. C. d’Arrigo, C. Leonelli and A. Bonamartini-Corradi,
Department of Chemistry, Faculty of Engineering, University of Modena and Reggio Emilia, Modena, Italy

78 (6.C) - "Novel preparation of nanoparticules of inorganic materials under microwave irradiation"  P. 343
Y. Wada, H. Kuramoto, J. Anand, T. Kitamura and S. Yanagida, Material and Life Science, Graduate School of Engineering, Osaka University, Osaka, Japan

79 (6.C) - "How to take advantage of microwave heating in nanoparticules growing"  P. 347
K. Bellon, T. Caillot, D. Chaumont and D. Stuerga, Laboratoire de Recherches sur la Réactivité des Solides, CNRS-Université de Bourgogne, Dijon, France

80 (6.C) - "Defined microwave heating in the crystallization of microporous materials observed by in situ ultrasound monitoring"  P. 351
R. Herrmann 2, M. Brinkmann 1, W. Grill 3, T.J. Kim 3, O. Scharf 2, R. Shertlen 4, M. Schnacht 3, W. Schwieger 2, C. Stenzel 1, H. Toufar 5 and Y. Venot 4,
ZESAM-Group (ZEolite Synthesis and Analysis under Microwave heating),
(1) : Astrium GmbH, (2): Erlangen University, (3) : Leipzig University,
(4): Karlsruhe University, (5) : Tricat GmbH, Bitterfeld, Germany

12.30 - 14.00 : Lunch Break (on site)

14.00 - 16.00 : Round Table
SUMMARY

Monday 4 September:

09.00 – 11.00 : Registration
11.00 – 12.00 : Opening Session (Presiding : Ricky Metaxas, President of AMPERE)
12.30 – 14.30 : Lunch break
14.30 – 15.30 : Keynote address of the Chairman of the Conference
15.00 – 17.00 : Topic 1 (Dielectrics)
17.30 – 19.00 : Welcome Reception (on site)

Tuesday, 5 September

08.00 – 10.00 : Topic 2 (Organic Chemistry). Session I
10.00 – 10.30 : Coffee break
10.30 – 12.15 : Topic 3 (Catalysis). Session I
12.30 – 14.30 : Lunch break
15.30 – 16.30 : Topic 6 (Inorganics and Ceramics). Session I
16.30 – 17.00 : Coffee break
17.30 – 18.30 : Topic 6 (Inorganics and Ceramics). Session II

Wednesday, 6 September

08.00 – 10.00 : Topic 2 (Organic Chemistry). Session II
08.00 – 10.00 : Topic 6 (Inorganics and Ceramics). Session III
10.00 – 10.30 : Coffee break
10.30 – 12.30 : Topic 2 (Organic Chemistry). Session III
10.30 – 12.00 : Topic 6 (Inorganics and Ceramics). Session IV
12.30 – 14.30 : Lunch break
14.30 – 16.30 : Topic 4 (Polymers and Composites). Session II
16.30 – 17.00 : Coffee break
17.00 – 18.30 : Topic 5 (Biochemistry, Natural Products and Environment)
20.00 – 23.00 : Conference Banquet at Restaurant “Eden Beach Casino”

Thursday, 7 September

08.00 – 10.00 : Topic 3 (Catalysis). Session II
10.00 – 10.30 : Coffee break
10.30 – 12.00 : Topic 6 (Inorganics and Ceramics). Session V
12.15 – 14.00 : Lunch break
14.00 – 16.00 : Round Table