



SYMPOSIUM H

Optoelectronics II: Molecular Photonics : From Macroscopic to Nanoscopic Applications

May 30 – June 2, 2000

Symposium Organizers:

I. Ledoux, ENS, Cachan, France

Z. Bao, Lucent Technology, Murray Hill, USA

J. Zyss, ENS, Cachan, France

Papers will be published in Synthetic Metals

E-MRS 2000 SPRING MEETING

SYMPOSIUM H

Tuesday May 30, 2000

Mardi 30 mai 2000

Morning

Matin

Session I : DEVICES AND TECHNOLOGY:

:

- H-I.1** 8:40 Invited NON-CIRCULAR MICRODISKS AS HIGH Q MICROCAVITIES, **R.K. Chang**, Henry Ford II Professor of Applied Physics, Yale University, New Haven CT 06520, USA
- H-I.2** 9:10 Invited LIGHT-TRIGGERED SWITCHING DEVICES FOR MOLECULAR ELECTRONICS, **S.L. Gilat**, Bell Labs, Lucent Technologies, 600 Mountain Avenue, Murray Hill NJ 07974, USA
- H-I.3** 9:40 Invited POLYMERS WITH SEMICONDUCTOR NANOCRYSTALS, **N.C. Greenham** and D.S. Ginger, Cavendish Laboratory, Madingley Road, Cambridge CB3 0HE, UK
- H-I.4** 10:10 THE INFLUENCE OF LiF THICKNESS ON THE BUILT-IN VOLTAGE OF BLUE-EMITTING POLYMER LIGHT-EMITTING DIODES WITH LiF/Al CATHODES, **T.M. Brown**, R.H. Friend and F. Cacialli, Cavendish Laboratory, Madingley Rd, Cambridge, UK, I. Millard, D. Lacey, CDT Ltd Greenwich House, Madingley Rd, Cambridge, UK
- H-I.5** 10:30 NOVEL POLYMER BASED RESONANT GRATING-WAVEGUIDE STRUCTURES, **A. Donval**, E. Toussaere and J. Zyss, Laboratoire de Photonique Quantique et Moléculaire, (UMR CNRS #8537), Ecole Normale Supérieure de Cachan, 61 av. du Président Wilson, 94235 Cachan, France, G. Levy-Yurista and A.A. Friesem, Dept of Physics of Complex Systems, Weizmann Institute of Science, Rehovot 76100, Israel
- 10:50 **BREAK**

Session II : LIGHT-EMITTING POLYMERS AND DIODES

- H-II.1** 11:20 Invited PHOTON-MEDIATED HYBRIDISATION OF FRENKEL EXCITONS IN ORGANIC SEMICONDUCTOR MICROCAVITIES, **D.G. Lidzey**, D.D.C Bradley, A. Armitage, S. Walker, M.S. Skolnick, Department of Physics and Astronomy, The University of Sheffield, Sheffield S3 7RH, UK
- H-II.2** 11:50 ANALYSIS OF POLYMER BASED DEVICES, **N. Tessler**, Y. Roichman, Electrical Engineering Department, Technion, 32000 Haifa, Israel and D.J. Pinner, Cavendish Lab, Madingley Rd, Cambridge CB3 0HE, UK
- H-II.3** 12:10 DYNAMICS OF SPACE CHARGE DISTRIBUTIONS IN SIDE CHAIN PPV LEDS, **F. Michelotti**, S. Bussi, L. Dominici, M. Bertolotti, Istituto Nazionale di Fisica della Materia and Università di Roma "La Sapienza", Dipartimento di Energetica, Via A. Scarpa 16, 00161 Roma, Italy, Z. Bao, Lucent Technologies, Murray Hill, USA
- 12:40 **LUNCH**

Tuesday May 30, 2000
Mardi 30 Mai 2000

Afternoon
Après-midi

Session III : NONLINEAR POLYMERS AND DEVICES

- H-III.1** 14:00 Invited REALIZATION OF SUB 1-V POLYMERIC EO MODULATORS THROUGH SYSTEMATIC DEFINITION OF MATERIAL STRUCTURE/FUNCTION RELATIONSHIPS, **L.R. Dalton**, Department of Chemistry, University of Washington, Seattle WA 98195, USA
- H-III.2** 14:30 Invited OPTICAL AND ELECTRICAL PROCESSING OF NEW ORIENTED ELECTROOPTIC POLYMER DEVICES, **E. Toussaere**, LPQM, Ecole Normale Supérieure de Cachan, 61 avenue du Président Wilson, 94235 Cachan, France
- H-III.3** 15:00 Invited OPTICS IN PERIODICALLY STRUCTURED POLYMER FILMS, **J.-M. Nunzi**^(1,2), L. Rocha⁽¹⁾, V. Dumarcher⁽¹⁾, C. Denis⁽¹⁾, P. Raimond⁽¹⁾, C. Fiorini⁽¹⁾, F. Sobel⁽²⁾, B. Sahraoui⁽²⁾, D. Gindre^(1,2), ⁽¹⁾LETI, CEA - Technologies Avancées, DEIN/SPE, Groupe Composants Organiques, CEA Saclay, 91191 Gif-sur-Yvette Cedex, France, ⁽²⁾Laboratoire des Propriétés Optiques des Matériaux et Applications, Université d'Angers, 2 Boulevard Lavoisier, 49045 Angers Cedex, France
- H-III.4** 15:30 NOVEL HIGHLY EFFICIENT AND STABLE CHROMOPHORES FOR POLYMER ELECTRO-OPTIC APPLICATIONS, I. Liakatas, M. Boesch, **Ch. Bosshard**, C. Cai, C. Fischer, and P. Guenter, Nonlinear Optics Laboratory, Institute of Quantum Electronics, Swiss Federal Institute of Technology, ETH Hoenggerberg, 8093 Zuerich, Switzerland
- H-III.5** 15:50 AC-FIELD POLING OF POLYMERS CONTAINING AZO-DYES STUDIED BY DIELECTRIC AND ELECTRO-OPTIC SPECTROSCOPY, **T.G. Pedersen**, Inst. of Physics, Aalborg University, Pontoppidanstraede 103, 9220 Aalborg East, Denmark, P.M. Johansen and H.C. Pedersen, Optics and Fluid Dynamics Dept., Riso National Laboratory, 4000 Roskilde, Denmark
- 16:10 **BREAK**

Session IV : LUMINESCENT MATERIALS

- H-IV.1** 16:30 Invited LIGHT - EMITTING DIODES BASED ON LIQUID - CRYSTALLINE POLYFLUORENES, **D. Neher**, University of Potsdam, Institute of Physics, Am Neuen Palais 10, 14469 Potsdam, Germany
- H-IV.2** 17:00 Invited OPTICAL PROPERTIES OF HIGHLY ORIENTED POLY(P-PHENYLENE-VINYLENE), **D. Comoretto**, INFN, Dip. di Chimica e Chimica Industriale, Università di Genova, Via Dodecaneso 31, 16146 Genova, Italy
- H-IV.3** 17:30 METHODS FOR ACHIEVING POLARIZED LEDS, **Z. Bao**, L. Chen, A.J. Lovinger, J. Sapjeta1, Bell Laboratories, Lucent Technologies, 600 Mountain Avenue, Murray Hill, NJ 07974, USA, R. Jakubiak, L. Rothberg, Department of Chemistry, University of Rochester, Ming Yan, Lawrence Livermore National Laboratories, USA
- H-IV.4** 17:50 FLUORINATED DENDRIMERIC COMPLEXES FUNCTIONALIZED WITH LIGHT AMPLIFICATION LANTHANIDE CATIONS, C. Pitois, A. Hult, Royal Institute of Technology, Department of Polymer Technology, 10044 Stockholm, Sweden, A. Claesson, Acreo AB, Electrum 233, 16440 Kista, Sweden, **M. Lindgren**, Division of Laser Systems, Defence Research Establishment (FOA32), P.O. Box 1165, 58111 Linköping, Sweden

Wednesday May 31, 2000

Mercredi 31 mai 2000

Afternoon

Après-midi

Session V : SINGLE MOLECULE SPECTROSCOPY AND APPLICATIONS

- H-V-1** 14:00 Invited RECTIFICATION BY A SINGLE MOLECULE, **R.M. Metzger**, Laboratory for Molecular Electronics, Chemistry Department, University of Alabama, Tuscaloosa AL 35487-0336, USA
- H-V-2** 14:30 Invited FLUORESCENCE CORRELATION SPECTROSCOPY: SINGLE MOLECULE ANALYSIS IN LIFE SCIENCE, **R. Rigler** Department of Medical Biophysics, Karolinska Institutet, 17177 Stockholm, Sweden
- H-V-3** 15:00 OPTICAL MICROSCOPY WITH A SINGLE-MOLECULE LIGHT SOURCE, C. Hettich, J. Michaelis, C. Schmitt, S. Kühn, J. Mlynek and V. Sandoghdar, Fachbereich Physik, Universität Konstanz, Fach M696, 78457 Konstanz, Germany
- H-V-4** 15:20 MOLECULAR REARRANGEMENTS OBSERVED BY SINGLE-MOLECULE MICROSCOPY, W. Tröbsinger⁽¹⁾, A. Renn⁽¹⁾, B. Hecht⁽¹⁾, U. P. Wild⁽¹⁾, A. Montali⁽²⁾, P. Smith⁽²⁾, Ch. Weder⁽²⁾, ⁽¹⁾Institute for Physical Chemistry, ETH Zurich, Switzerland, ⁽²⁾Institute of Polymers, ETH Zurich, Switzerland, Physical Chemistry Laboratory & Institute of Polymers, Swiss Federal Institute of Technology, 8092 Zurich, Switzerland
- 15:40 **BREAK**
- 16:10 – 19:00 **POSTER SESSION**
- H/P01** THEORETICAL SEARCH FOR MOLECULAR AGGREGATES WITH STRONG NONLINEAR OPTICAL ACTIVITY, V.M. Yartsev, Centro de Física, Instituto Venezolano de Investigaciones Científicas (IVIC), Apartado 21827, Caracas 1020-A, Venezuela
- H/P02** FERROCENYL DERIVATIVES WITH Mo(TpAn) UNITS FOR SECOND AND THIRD-ORDER NON-LINEAR OPTICAL APPLICATIONS, G. Rojo⁽¹⁾, F. Agullo-Lopez⁽¹⁾, J.A. Campo⁽²⁾, M. Cano⁽²⁾, J.V. Heras⁽²⁾, ⁽¹⁾Departamento de Física de Materiales, C-IV, Universidad Autónoma, Cantoblanco, 28049 Madrid, Spain, ⁽²⁾Departamento de Química Inorgánica I, Facultad de Ciencias Químicas, Universidad Complutense, 28040 Madrid, Spain
- H/P03** COMPARISON OF NITRILE AND ACETYLIDE η^5 -MONOCYCLOPENTADIENYL COMPLEXES FOR 2nd ORDER NLO, W. Wenseleers, G. Aerts and E. Goovaerts, University of Antwerpen, 2610 Antwerpen, Belgium
- H/P04** HYPER-RAYLEIGH SCATTERING OF TRANS-TETRAAMMINERUTHENIUM(II) COMPLEXES, I. Asselberghs, S. Houbrechts and A. Persoons, Laboratory of Chemical and Biological Dynamics, Center for Research on Molecular Electronics and Photonics, University of Leuven, Celestijnenlaan 200D, Leuven, Belgium, B.J. Coe, J.A. Harris, L.J. Harrington, M.C. Chamberlain, J.P. Essex-Lopresti and S. Gaines, Department of Chemistry, University of Manchester, Oxford Road, Manchester M13 9PL, UK, J.C. Jeffery and L.H. Rees, Department of Chemistry, University of Bristol, Cantock's Close, Bristol, BS8 1TS, UK, T. Gelbrich and M.B. Hursthouse, EPSRC X-ray Crystallography Service, Department of Chemistry, University of Southampton, Highfield, Southampton, SO17 1BJ, UK
- H/P05** INFLUENCE OF THE TWIST ANGLE OF BIPHENYLS ON THEIR NLO PROPERTIES: A THEORETICAL AND EXPERIMENTAL STUDY BY NMR, IR AND NLO TECHNIQUES, A. Fort⁽¹⁾, A. Boeglin⁽¹⁾, V. Stortz⁽¹⁾, L. Mager⁽¹⁾, C. Amyot⁽²⁾, C. Combellas⁽²⁾, A. Thiébaud⁽²⁾, ⁽¹⁾Groupe d'Optique Non Linéaire et d'Optoélectronique, IPCMS, UMR 7504, 23 rue du Loess, 67037 Strasbourg Cedex France, ⁽²⁾ESPCI, Laboratoire Environnement et Chimie Analytique, 10 rue Vauquelin, 75231 Paris Cedex, France
- H/P06** INVESTIGATION OF NEW PUSH-PULL PYRIDINE-N-OXIDE DERIVATIVES AS 1D NLO CHROMOPHORES WITH VANISHING DIPOLE MOMENT, C. Bourgogne, P. Masson, J.-F. Nicoud, Groupe des Matériaux Organiques-IPCMS, 23 rue du Loess 67037 Strasbourg, France and S. Brasselet, I. Ledoux, J. Zyss, LPQM-ENS Cachan, 61 avenue du Président Wilson 94235 Cachan, France

- H/P07** SYNTHESIS AND CHARACTERIZATION OF NEW 2-D CHARGE TRANSFER MOLECULES FOR SECOND ORDER NLO, L. Gehringer, C. Bourgoigne, P. Masson, J.-F. Nicoud, IPCMS-GMO, 23 rue du Loess, 67037 Strasbourg, France and I. Ledoux-Rak, J. Zyss, ENS-LPQM, 61 avenue du Président Wilson, 94235 Cachan, France
- H/P08** SECOND-HARMONIC SCATTERING BY PYROELECTRIC TWINS OF KLiSO₄, D. Rouede⁽¹⁾, Y. Le Grand⁽¹⁾, P. Rabiller⁽¹⁾, C. Scherf⁽²⁾; ⁽¹⁾ Groupe Matière Condensée et Matériaux, U.M.R. 6626, Bat. 11a, Campus de Beaulieu, Université de Rennes1, 35042 Rennes Cedex, France; ⁽²⁾ Institut für Kristallographie, RWTH Aachen, 52056 Aachen, Germany
- H/P09** PREPARATION AND CHARACTERIZATION OF SOME NEW L-ARGININE SALTS CRYSTALS, R.P. Sukiasyan⁽¹⁾, H.A. Karapetyan⁽²⁾, E.W. Van Stryland⁽³⁾ and A.M. Petrosyan⁽¹⁾, ⁽¹⁾Yerevan State University, Alex Manoogian St.1, Yerevan 375049, Armenia, ⁽²⁾Molecular Structure Research Center, NAS of Armenia, ⁽³⁾CREOL, University of Central Florida, USA
- H/P10** GROWTH OF SINGLE CRYSTALS OF TRIS(PHENYLQUINOXALINE), S. Blumstengel, A. Borghesi, INFN and Dipartimento di Scienza dei Materiali, Univ. di Milano-Bicocca, Via Cozzi 53, 20125 Milano, Italy; L. Antolini, Dipartimento di Chimica, Univ. di Modena e Reggio Emilia, Via Campi 183, 41100 Modena, Italy; M. Jandke, P. Strohsriegel, Makromolekulare Chemie I and Bayreuther Institut für Makromolekülforschung, Uni. Bayreuth, 95440 Bayreuth, Germany
- H/P11** LIGHT INFLUENCE ON SOME MESOMORPHIC MEMBRANARE SYSTEMS, M. Ghelmez (Dumitru), B. Dumitru, M. Honciuc, C. Popa, A.P. Sterian, "Politehnica" University of Bucharest, Splaiul Independentei 313, 77 206 Bucharest, Romania
- H/P12** LIQUID CRYSTALLINE MONODOMAINS CONTAINING NLO CHROMOPHORE, E. Amendola, M. Giamberini, Institute of Composite Materials technology, CNR, P. le Tecchio 80, 80125 Naples, Italy, and E. Toussare and J. Zyss, LPQM – ENS Cachan, 61 avenue du Président Wilson, 94235 Cachan cedex, France
- H/P13** FERROELECTRIC IN-PLANE REARRANGEMENT OF PVDF MOLECULES IN LANGMUIR FILMS STUDIED BY OPTICAL SECOND HARMONIC GENERATION, E.D. Mishina, A.S. Sigov, Moscow State Institute of Radioengineering, Electronics and Automation, 117454 Moscow, Russia, Th. Rasing, Research Institute for Materials, University of Nijmegen, Toernooiveld 1, 6525 ED Nijmegen, The Netherlands
- H/P14** NEW POLYMERS CONTAINING AMINOPHENYLAZOPHENYLBENZOXAZOLE CHROMOPHORES FOR APPLICATIONS IN NONLINEAR OPTICS, T. Beltrani, A. Castaldo, R. Centore, S. Concilio, A. De Maria, A. Sirigu, A. Tuzi, Dipartimento di Chimica, Università di Napoli "Federico II", Via Mezzocannone 4, 80134 Naples, Italy
- H/P15** NEW FUNCTIONAL COPOLYMERS OF N-(4-CARBOXYPHENYL) MALEIMIDE WITH METHYLMETHACRYLATE AND METHACRYLIC ACID, V.B. Konsulov, D.I. Diakova, Z.S. Grozeva, Faculty of Chemistry, University "Ep. K. Preslavski" Shumen, 115 "Alen mak" str., Shumen 9700, Bulgaria
- H/P16** NEW FUNCTIONALIZED POLYIMIDES FOR NLO MATERIALS, A. Volozhyn, T. Chamenko, M. Czvirko, Institute of Physical Organic Chemistry Nat. Acad. of Sci., Belarus, 13 Surganov str., Minsk 220072, Belarus
- H/P17** STRONG FIELD POLING OF MULTIPOLAR STRUCTURES :FUNDAMENTALS AND DEVICE IMPLICATIONS, I. Ledoux, I. Cazenobe, S. Brasselet, E. Toussaere and J. Zyss, LPQM – UMR 8537, Ecole Normale Supérieure de Cachan, 61 avenue du Président Wilson, 94235 Cachan Cedex, France
- H/P18** NANOSCOPIC STRUCTURE ETCHED IN POLYMERS BY F.I.B, D. Chiron, T. Trigaud, J.-P. Moliton, UMOP, Faculté des Sciences, 123 av. Albert Thomas, 87060 Limoges, France
- H/P20** NONLINEAR OPTICAL RESPONSE OF CHARGED OR DOPED CONJUGATED SYSTEMS, M. Del Zoppo, C. Castiglioni, A. Bianco, G. Zerbi, Dip. di Chimica Industriale, Politecnico di Milano, Piazza Leonardo da Vinci 32, 20133 Milano, Italy

- H/P21** Z-SCAN MEASUREMENTS OF THIRD-ORDER OPTICAL NONLINEARITIES ON POLY(PHENYLACETYLENES), M. Falconeri, ENEA-C.R. Casaccia, Divisione Nuovi Materiali, via Anguillarese 301, 00060 Roma, Italy ; R.Damato, M.V. Russo, A. Furlani, Dipartimento di Chimica, Università degli Studi di Roma La Sapienza, P.le Aldo Moro 5, 00185 Roma, Italy
- H/P22** BRAGG GRATINGS IN PLANAR POLYDIACETYLENE WAVEGUIDES AND THEIR APPLICATION IN INTEGRATED OPTICS, M.A. Bader and G. Marowsky, Laser-Laboratorium Goettingen e.V., Nonlinear Optics Dept., P.O.Box 2619, 37016 Goettingen, Germany
- H/P23** NONLINEAR CHARACTERIZATION OF ULTRATHIN FILMS OF POLY-CARBAZOYLDIACETYLENE DCHD-HS BY MEANS OF SURFACE PLASMON SPECTROSCOPY, I. Moggio⁽¹⁾, D. Comoretto⁽¹⁾, C. Cuniberti⁽¹⁾, G. Dellepiane⁽¹⁾, E. Giorgetti⁽²⁾, G. Margheri⁽²⁾, F. Gelli⁽²⁾, S. Sottini⁽²⁾, ⁽¹⁾INFN, INSTN, Dipartimento di Chimica e Chimica Industriale, Università di Genova, Via dodecaneso 21, 16146 Genova, Italy, ⁽²⁾Istituto di Ricerca sulle Onde Elettromagnetiche, CNR Via Panciattichi 64, 50127 Firenze, Italy
- H/P24** THEORETICAL CALCULATIONS OF THE GEOMETRIES AND OF THE LOWEST OPTICAL TRANSITIONS OF CHARGED OLIGODIACETYLENES, M. Ottonelli, I. Moggio, G. Musso, D. Comoretto, C. Cuniberti, G. Dellepiane, INFN -- Dipartimento di Chimica e Chimica Industriale, via Dodecaneso 31, 16146 Genova, Italy, and Dipartimento di Chimica e Chimica Industriale dell'Università di Genova Via Dodecaneso 31, 16146 Genova, Italy
- H/P25** A NOVEL TECHNIQUE TO DETERMINE ABSOLUTE VALUES OF THIRD-ORDER SUSCEPTIBILITIES: THIRD-HARMONIC GENERATION IN THE GAS PHASE, Ch. Bosshard and U. Gubler, Nonlinear Optics Laboratory, Institute of Quantum Electronics, Swiss Federal Institute of Technology, ETH Hönggerberg, 8093 Zürich, Switzerland
- H/P26** PHOTOADDRESSABLE BLOCK COPOLYMERS T. Breiner⁽¹⁾, C. Frenz⁽¹⁾, U. Theissen⁽²⁾, S.J. Zilker⁽²⁾, D. Haarer⁽²⁾ and H.-W. Schmidt⁽¹⁾, ⁽¹⁾Makromolekulare Chemie I, Universität Bayreuth, Germany, ⁽²⁾Experimentalphysik IV, Universität Bayreuth, Bayreuther Institut für Makromolekülforschung, Germany
- H/P27** ON THE DYNAMICS AND THE SYMMETRY OF PHOTOINDUCE ORDERING OF PHOTOISOMERIZABLE DYES IN AMORPHOUS MATRICES, M. Dumont, Laboratoire de Photonique Quantique et Moléculaire, ENS de Cachan, 61 Av du Président Wilson, 94235 Cachan cedex, France
- H/P28** SURFACE DEFORMATION ON AZOBENZENE POLYMER FILM INDUCED BY OPTICAL NEAR FIELD OF PS MICROSPHERES, T. Ikawa, M. Hasegawa, M. Tsuchimori and O. Watanabe, Toyota Central R&D Labs., Inc., Nagakute, Aichi 480-1192, Japan and Y. Kawata, C. Egami, O. Sugihara and N. Okamoto, Faculty of Engineering, Shizuoka University, Johoku, Hamamatsu 432-8561, Japan
- H/P29** NEW MATERIAL: FERROELECTRIC LANMUIR-BLODGETT FILM IMPREGNATED WITH DYE MOLECULES, V.B. Zaitsev, S.A. Pestova, G.S. Plotnikov, M.V. Lomonosov Moscow State University, Moscow, Russia
- H/P30** PHOTOLUMINESCENCE IN A CONJUGATED POLYMER/GLASS COMPOSITE FILM, A. Donval, D. Josse, R. Hierle, I. Ledoux-Rak, E. Toussaere and J. Zyss, Laboratoire de Photonique Quantique et Moléculaire 'UMR CNRS #8537), Ecole Normale Supérieure de Cachan, 61 av. du Président Wilson, 94235 Cachan, France, G. Perpelitsa, O. Levi and D. Davidov, Racach Institute of Physics, The Hebrew University of Jerusalem, Jerusalem 91904, Israel, I. Bar-Nahum and R. Neumann, Casali Institute of Applied Chemistry, The Hebrew University of Jerusalem, Jerusalem 91904, Israel
- H/P31** ELECTROCHEMICAL AND ELECTROLUMINESCENT PROPERTIES OF RANDOM COPOLYMERS OF FLUORINE-AND ALKOXY-SUBSTITUTED POLY(P-PHENYLENE VINYLE)S, R. Riehn⁽¹⁾, J. Morgado⁽¹⁾, R. Iqbal⁽²⁾, S.C. Moratti⁽²⁾, A.B. Holmes⁽²⁾, S. Volta⁽³⁾ and F. Cacialli⁽¹⁾, ⁽¹⁾Cavendish Laboratory, University of Cambridge, Madingley Rd, Cambridge CB3 0HE, UK, ⁽²⁾Melville Laboratory, Pembroke Street, Cambridge, UK, ⁽³⁾Inst. f. Org. Chem. und Makromol. Chem., Friederich-Schiller-Universität Jena, Humboldtstr. 10, 07743 Jena, Germany
- H/P32** OPTICAL PROPERTIES OF OLIGOTHIOPHENE HETERO-STRUCTURES GROWN BY ORGANIC MOLECULAR BEAM DEPOSITION, S. Tavazzi, F. Meinardi, A. Borghesi, A. Sassella, and R. Tubino, INFN and Dipartimento di Scienza dei Materiali, Università Milano-Bicocca, Via Cozzi 53, 20125 Milano, Italy

- H/P33** ORGANIC LUMINESCENT DEVICES BASED ON PYRIDINE-PHENOL BORON COMPLEXES, Key Laboratory for Supramolecular Structure and Spectroscopy, J. Shen, Y. li and Y Wang, Jilin Laboratory, Changchun 130023, China
- H/P34** SYNTHESIS AND CHARACTERIZATION OF DYE CONTAINING FLUORINATED POLYIMIDE THIN FILMS, A. Quaranta^(1,2), S. Carturan⁽¹⁾, G. Maggioni⁽¹⁾, G. Della Mea^(1,2), M. Ischia⁽²⁾, R. Camprostrini⁽²⁾, ⁽¹⁾Istituto Nazionale di Fisica Nucleare, Laboratori Nazionali di Legnaro, Via Romea 4, 35020 Legnaro (Pd), Italy, ⁽²⁾Università di Trento; Dipartimento di Ingegneria dei Materiali, Mesiano (Tn) Italy
- H/P35** ORGANIC LIGHT-EMITTING DIODE IN THE NEAR INFRARED, R. Antony, A. Moliton, UMOP (Faculté des Sciences) and R. Granet, P. Krausz, LCSN (Faculté des Sciences), 123 av. Avenue Albert Thomas, 87060 Limoges Cedex, France
- H/P36** ORGANIC LIGHT-EMITTING DIODES BASED ON MULTILAYER STRUCTURES, D. Troadec, R. Antony, A. Moliton, UMOP, Faculté des Sciences, 123 Av. Albert Thomas, 87060 Limoges Cedex, France, and G. Vériot, LCR, Thomson CSF, Domaine de Corbeville, 91404 Orsay Cedex, France
- H/P37** ULTRAVIOLET PHOTOELECTRON SPECTROSCOPY ON NEW HETEROCYCLIC MATERIALS FOR MULTILAYER ORGANIC LIGHT EMITTING DIODES, M.B. Casu, S. Schrader, P. Imperia, B. Schulz, Universität Potsdam, Institut für Physik, Am Neuen Palais 10, 14469 Potsdam, Germany, M. Jandke, P. Strohriegl, Makromolekulare Chemie I, Universität Bayreuth, 95440 Bayreuth, Germany and B. Falk, Institute of Thin Film Technology and Microsensorics, Kekulestr. 6, 12489 Berlin, Germany
- H/P38** THERMALLY STIMULATED PROCESSES IN HETEROCYCLIC MATERIALS SUITABLE FOR HETEROLAYER ORGANIC LIGHT EMITTING DIODES, P. Imperia, S. Schrader, M.B. Casu, Universität Potsdam, Institut für Physik, Am Neuen Palais 10, 14469 Potsdam, Germany, M. Jandke, P. Strohriegl, Makromolekulare Chemie I, Universität Bayreuth, 95440 Bayreuth, Germany and B. Falk, Institute of Thin Film Technology and Microsensorics, Kekulestr. 6, 12489 Berlin, Germany
- H/P39** TOWARDS 3D PHOTONIC CRYSTALS, V.M Shelekhina, O.A Prokhorov, P.A. Vityaz, Powder Metallurgy Institute, Platonova St. 41, 220600 Minsk, Belarus, A.P. Stupak, S.V. Gaponenko, Institute of Molecular and Atomic Physics, 220072 Minsk, Belarus, N.V. Gaponenko, Belarusian State University of Informatics and Radioelectronics, P. Browki St.6, 220027 Minsk, Belarus
- H/P40** CARBON NANOTUBE SYSTEMS BY STEP OXIDATION AND DECORATION, P. Schaff, Institute of Physics, TU Ilmenau, 98684 Ilmenau, Germany, O. Marchenko Institute of Physics, 45 Nauki Prosp., 01028 Kyiv, Ukraine, S. Bulavenko, G. Karlash, A. Benilov, Yu. Kirgisov, Yu. Astashkin, S. Durov, A. Gorchinsky, V. Pogorelov, Yu. Prilutskiy, E. Buzaneva, Radiophysical and Physical Departments Kiev National Taras Shevchenko University 64 Vladimirska str., 01033 Kiev, Ukraine
- H/P41** NANOSTRUCTURED CONJUGATED MOLECULAR FILMS: SPATIALLY-CONTROLLED GROWTH ONTO NANOFABRICATED SUBSTRATES, F. Biscarini, M. Murgia, C. Menozzi, M. Cavallini, M. Brinkmann, M. Muccini, CNR-Istituto di Spettroscopia Molecolare, Via P. Gobetti 101, 40129 Bologna, Italy, M. Calleja, R. Garcia, CSIC-Instituto de Microelectronica, Av. I. Newton 8, 28760 Tres Cantos, Madrid, Spain
- H/P42** SOLUBLE POLYDIACETYLENES:MOLECULAR PROPERTIES AND SOLID STATE ORGANIZATION, M. Alloisio, I. Moggio, D. Comoretto, C. Cuniberti, C. Dell'Erba, G. Dellepiane, INFN-Dipartimento di Chimica e Chimica Industriale, Università di Genova, Via Dodecaneso 31, 16146 Genova, Italy
- H/P43** MICROSCOPIC ASPECTS OF FRACTURE IN DIAMOND-LIKE CARBON AND RELATED MATERIALS, A.N. Izotov and V.P. Kisel, Inst. of Solid State Physics, RAS, 142432 Chernogolovka, Moscow distr., Russia
- H/P44** OPTICAL CHARACTERIZATION OF POLYMERIC WAVEGUIDES REALIZED BY ION BEAM ASSISTED ETCHING, C. Cornic, B. Lucas, A. Moliton, UMOP (Faculté des Sciences) and B. Colombeau, IRCOM (Faculté des Sciences), 123 Av. Albert Thomas, 87060 Limoges Cedex, France
- H/P45** CHARGE TRANSPORT IN MULTILAYERED CADMIUM STEARATE LANGMUIR-BLODGETT FILMS, Yu.N. Savin, S.I. Gordeev, A.V. Tolmachev, STC "Institute for Single Crystals", Dept. Institute for Single Crystals, Lenin Ave.60, 310001 Kharkov, Ukraine

- H/P46** FORMATION OF A PHOTOPOLYMER TIP AT THE END OF A SINGLE-MODE OPTICAL FIBER, C. Ecoffet, C. Triger, DPG, ENSCMu, CNRS, UMR 7525, 3 rue Alfred Werner, 68093 Mulhouse, France, and R. Bachelot, G. Wurtz and P. Royer, LNIO, UTT, 12 rue Marie Curie, BP 2060, 10010 Troyes Cedex, France
- H/P47** CALCULATION OF TEMPERATURE FIELDS IN IRRADIATED BY ELECTRONS POLYTETRAFLUOROETHYLENE IN RESONANT AREA OF ENERGY ABSORPTION, A.E. Burin, A.A. Kupchishin, A.I. Kupchishin, B. Taipova, Dostyk 13, 480100 Almaty, Kazakhstan
- H/P48** INVESTIGATION OF MECHANICAL DURABILITY OF IRRADIATED BY ELECTRONS METALLIZED POLYIMIDE FILMS IN LOADED STATE, M. Abadi, G.I. Boiko, B.A. Zhubanov, B.A. Kozhamkulov, S.K. Kudaikulova, A.A. Kupchishin, A.I. Kupchishin, B. Taipova, B.A. Tronin, Dostyk 13, 480100 Almaty, Kazakhstan
- H/P49** DETERMINATION OF IONIC AND PURE ELECTRONIC CONTRIBUTIONS TO THE ELECTRO-OPTIC COEFFICIENT OF CADMIUM TELLURIDE AND GALLIUM ARSENIDE SINGLE CRYSTALS, A. Zappettini, A. Milani, S. M. Pietralunga, E. Bocchi, M. Martinelli, CORECOM, via Ampère 30, 20131 Milano, Italy
- H/P50** EFFICIENT NEAR-IR SECOND HARMONIC GENERATION IN II-VI SEMICONDUCTORS, A. Milani, A. Zappettini, S.M. Pietralunga and M. Martinelli, CORECOM, via Ampère, 30, 20131 Milano, Italy and A. Mycielski Inst. of Phys., Polish Academy of Sciences, 02-668 Warszawa, Al. Lotnikow 32/46, Poland
- H/P51** PHOTOSTIMULATED REBUILDING OF STRUCTURE IN MOLECULAR MEDIA, B.L. Oksengendler, S.Sh. Rashidova, N.N. Turaeva, Institute of Polymer Chemistry and Physics, 700128, Kadiry str.7B, Tashkent, Uzbekistan
- H/P52** $H_2V_{10}Mo_2O_{31.7} \cdot 8.6H_2O$ LAYERED FLMS DEPOSITED FROM GELS AS ELECTROCHROMIC MATERIALS, V. Bondarenka, S. Grebinskij, A. Kindurys, S. Mickevicius, D. Senulienė, Semiconductor Physics Institute, A. Gostauto 11, 2600 Vilnius, Lithuania, V. Volkov, G. Zakharova, Institute of Solid State Chemistry, Pervomaiskaia 91, 620219 Yekaterinburg, Russia
- H/P53** OPTICALLY-INDUCED EFFECTS IN ROTATING NONLINEAR 3-ATOMIC MOLECULES, V.V. Andreev, Chuvash State University, Moskovskii pr. 15, Cheboksary 428015, Russia
- H/P54** VORTEX INTERFERENCE IN JOSEPHSON ARRAYS IN THE INSULATING PHASE, A. Vourdas, Department of Electrical Engineering and Electronics, University of Liverpool, Brownlow Hill, Liverpool L69 3GJ, UK, A.C. Cefalas and E. Sarantopoulou, National Hellenic Research Foundation. Theoretical and Physical Chemistry Institute, 48 Vas. Constantinou Aven., Athens 11635, Greece
- H/P55** MODULATION OF PERIOD OF QUANTUM BEATS FROM OPTICAL EMISSION FROM THE EXCITED ELECTRONIC STATES OF MERCURY TRIATOMIC CLUSTERS, E. Sarantopoulou and A.C. Cefalas, National Hellenic Research Foundation Theoretical and Physical Chemistry Institute, 48 Vas. Constantinou Avenue, Athens 11635 Greece, A. Vourdas, Department of Electrical Engineering and Electronics, University of Liverpool, Brownlow Hill, Liverpool L69 3GJ, UK
- H/P56** CALCULATION OF DIFFRACTIVE OPTICAL ELEMENTS WITH USE OF A FULLY VECTORIAL BEAM PROPAGATION METHOD AND FABRICATION OF THESE ELEMENTS WITH EXCIMER LASER ABLATION, P. Gerard, M. Flury, J. Fontaine, T. Engel, Laboratoire des Systèmes Photoniques ENSPS, Pôle API, boulevard Sébastien Brant, 67400 Illkirch Graffenstaden, France

Thursday June 1, 2000

Jeudi 1^{er} juin 2000

Morning

Matin

Session VI : PHOTOINDUCED MOLECULAR MOTION AND PATTERNING

- H-VI.1** 8:30 Invited PHYSICS AND TECHNOLOGY OF OPTICAL STORAGE IN POLYMER THIN FILMS, **P.S. Ramanujam**, R.H. Berg and S. Hvilsted, Riso National Laboratory, 4000 Roskilde, Denmark
- H-VI.2** 9:00 ELLIPSOMETRIC STUDY OF PHOTOISOMERIZATION IN LANGMUIR-BLODGETT MULTILAYERS OF A PHOTSENSITIVE AZO-POLYMER, **L. Cristofolini**, S. Arisi, P. Camorani, M. P. Fontana, Dipartimento di Fisica and Istituto Nazionale per le Fisica della Materia, Universita' di Parma, 43100 Parma, Italy
- H-VI.3** 9:20 SURFACE GRATINGS IN AZOBENZENE SIDE-CHAIN POLYMERS: AN INVESTIGATION WITH PULSED HOLOGRAPHY AND CONFOCAL RAMAN MICROSCOPY, **S.J. Zilker**⁽¹⁾, M.R. Huber⁽¹⁾, O. Baldus⁽¹⁾, A. Leopold⁽¹⁾, H. Menzel⁽²⁾, V. Börger⁽²⁾, C. Sourisseau⁽³⁾, F. Lagugné-Labarhet⁽³⁾, T. Bieringer⁽⁴⁾, ⁽¹⁾University of Bayreuth, 95440 Bayreuth, Germany, ⁽²⁾University of Hannover, 30167 Hannover, Germany, ⁽³⁾CNRS and Université de Bordeaux, 33405 Talence, France, ⁽⁴⁾Bayer-AG, 51368 Leverkusen, Germany
- H-VI.4** 9:40 ALL-OPTICAL ORIENTATION OF OCTUPOLAR DYES, **R. Piron**, I. Ledoux, E. Toussaere, and J. Zyss, Laboratoire de Photonique Quantique et Moléculaire (UMR 8537), ENS-Cachan, 61 av. du Président Wilson, 94 235-Cachan, France and G. Viscardi, Dipartimento di Chimica Generale ed Organica Applicata, Corso Massimo D'Azeglio 48, 10125 Torino, Italy
- 10:00 **BREAK**

Session VII : PHOTONIC MATERIALS

- H-VII.1** 10:30 Invited SYMMETRY, LASER ACTION AND COUPLING IN 2-DIMENSIONAL PHOTONIC CRYSTALS, **A. Dodabalapur**, A. Mekis, R.E. Slusher, J.A. Rogers, D.M. Tennant, A. Timko, M. Meier, Z. Bao, and O. Nalamasu, Bell Laboratories, Lucent Technologies, Murray Hill, NJ 07974, USA, J. Joannopoulos, MIT, Physics Department, Cambridge MA, USA
- H-VII.2** 11:00 Invited SOL-GEL DERIVED FILMS IN MESOPOROUS MATRICES: POROUS SILICON, ANODIC ALUMINA AND ARTIFICIAL OPALS, **N.V. Gaponenko**, Belarusian State University of Informatics and Radioelectronics, P. Browki St. 6, 220027 Minsk, Belarus
- H-VII.3** 11:30 Invited LIGHT EMISSION FROM OPAL-LIKE POLYMERIC PHOTONIC CRYSTALS, **S.G. Romanov**, Institute of Materials Science and Department of Electrical Engineering, University of Wuppertal, Gauss-Str. 20, 42097 Wuppertal, Germany
- H-VII.4** 12: 00 SELF-ASSEMBLY OF FLOATING MAGNETIC PARTICLES ON LIQUIDS INTO ORDERED STRUCTURES- A NOVEL METHOD FOR THE FABRICATION OF TUNABLE BANDGAP STRUCTURES, M. Golosovsky, Y. Saado and **D. Davidov**, Racah Institute of Physics, The Hebrew University of Jerusalem, Israel
- 12:40 **LUNCH**

Thursday June 1, 2000

Jeudi 1^{er} Juin 2000

Afternoon

Après-midi

Session VIII : MOLECULAR MATERIALS FOR NONLINEAR OPTICS

- H-VIII.1** 14:00 Invited WAVELENGTH CONVERSION IN NONLINEAR ORGANIC CRYSTALS THROUGH CASCADING PROCESSES, **V. Degiorgio**, INFN and Dipartimento di Elettronica, Università di Pavia, 27100 Pavia, Italy
- H-VIII.2** 14h 30 Invited ORIENTED CRYSTALLIZATION OF NLO ORGANIC MATERIALS, **P.Damman**^(1,2) R. Vallée⁽²⁾, M. Dosière⁽²⁾, E. Toussaere⁽²⁾, J. Zyss⁽²⁾, ⁽¹⁾Université de Mons-Hainaut, Laboratoire de PhysicoChimie des Polymères, 20, Place du Parc, 7000 Mons, Belgium, and ⁽²⁾Ecole Normale Supérieure de Cachan, Laboratoire de Photonique Quantique et Moléculaire (UMR CNRS #8537), 61 Avenue Président Wilson, 94235 Cachan Cedex, France
- H-VIII.3** 15:00 Invited APPLICATION OF MOLECULAR RECOGNITION CONCEPT IN THE GROWTH OF ORGANIC NONLINEAR OPTICAL CRYSTALS, **C.S. Yoon**, H.-K. Hong, J. Park, Dept of Physics, KAIST, Daeduck Science Town, Taejon 305-701, Korea and K.-S. Lee, Dept. of Macromolecular Science, Hannam University, Taejon 306-791, Korea
- H-VIII.4** 15:30 ORIENTATION OF THIN FILMS OF CONJUGATED SYSTEMS BY DIFFERENT TECHNIQUES, **I. Moggio**⁽¹⁾, J. Le Moigne⁽²⁾, A. Thierry⁽³⁾, D. Comoretto^(1,4), E. Arias-Marin⁽²⁾, G. Dellepiane^(1,4), C. Cuniberti, ⁽¹⁾Dipartimento di Chimica e Chimica Industriale, Via Dodecaneso 31, 16146 Genova, Italy, ⁽²⁾Institut de Physique et Chimie des Matériaux de Strasbourg, UMR 7504, 23 rue du Loess, BP 20, 67037 Strasbourg, France, ⁽³⁾Institut Charles Sadron, 6 rue Boussingault, 67083 Strasbourg, France, ⁽⁴⁾INFN
- H-VIII.5** 15:50 FLUORENE OLIGOMERS : A NEW TYPE OF EFFICIENT MOLE-CULES FOR TWO-PHOTON ABSORPTION AND OPTICAL LIMITING APPLICATIONS, **Y. Morel**⁽¹⁾, O. Stephan⁽¹⁾, Y. Kervella⁽¹⁾, C. Andraud⁽²⁾, P.L. Baldeck⁽¹⁾, ⁽¹⁾Laboratoire de Spectrométrie Physique, Université Joseph Fourier, CNRS, B.P. 87, 38402 St Martin d'Hères, France, ⁽²⁾Ecole Normale Supérieure de Lyon, Stéréochimie et Interactions moléculaires, UMR CNRS n° 117, 69364 Lyon cedex 07, France

16:10

BREAK

Session IX : PHOTOVOLTAIC DEVICES

- H-IX.1** 16:30 INFLUENCE OF ENERGY LEVELS ON THE ELECTRONIC PROPERTIES OF ORGANIC LIGHT HARVESTING DEVICES, **R. Bilke**, A. Leicht, C. Jäger, M. Thelakkat, H. Karickal, D. Haarer, Lehrstuhl für Experimentalphysik IV, Universität Bayreuth, 95440 Bayreuth, Germany, Lehrstuhl für Makromolekulare Chemie, Universität Bayreuth, 95440 Bayreuth, Germany
- H-IX.2** 16:50 PENTACENE BASED PHOTOVOLTAIC DEVICES, **J.H. Schoen**, Ch. Kloc, B. Batlogg, Bell Laboratories, Lucent Technologies, Murray Hill, NJ 09774-0636, USA
- H-IX.3** 17:10 NOVEL HOLE CONDUCTING SYSTEMS BASED ON TRIARYL-AMINES FOR APPLICATION IN DYE-SENSITIZED SOLAR CELLS, H.R Karickal⁽¹⁾, C. Schmitz⁽¹⁾, **M. Thelakkat**⁽¹⁾, M. Heim⁽²⁾, R. Bilke⁽²⁾, D. Haarer⁽²⁾, G. Nelles⁽³⁾, A. Yasuda⁽³⁾; ⁽¹⁾Makromolekulare Chemie I and BIMF, University of Bayreuth, 95440 Bayreuth, Germany, ⁽²⁾Experimentalphysik IV, University of Bayreuth, 95440 Bayreuth, Germany, ⁽³⁾Sony International (Europe) GmbH, Stuttgarterstraße 106, 70736 Fellbach, Germany

H-IX.4 17:30 A HIGH FREQUENCY LIGHT - INDUCED ELECTRON SPIN RESONANCE STUDY OF CONJUGATED POLYMER-FULLERENE COMPOSITES, J. De Ceuster, E. Goovaerts, University of Antwerp, 2610 Antwerpen, Belgium, J.C. Hummelen, University of Groningen, 9747 AG Groningen, The Netherlands, V. Dyakonov, University of Oldenburg, 26111 Oldenburg, Germany

H-IX.5 17:50 ELECTRICAL ADMITTANCE STUDIES OF POLYMER PHOTO-VOLTAIC CELLS, J. Meyer, V. Dyakonov, J. Parisi, University of Oldenburg, 26111 Oldenburg, Germany, C.J. Brabec, N.S. Sariciftci, University of Linz, 4040 Linz, Austria, J.C. Hummelen, University of Groningen, 9747 AG Groningen, The Netherlands

Friday June 2, 2000
Vendredi 2 juin 2000

Morning
Matin

Session X : NANOSTRUCTURES

- H-X.1** 8:30 Invited ORGANIC NANOCRYSTALS GROWN IN GEL-GLASSES FOR OPTICAL DEVICES, N. Sanz⁽¹⁾, I. Wang⁽²⁾, P.L. Baldeck⁽²⁾ and **A. Ibanez**⁽¹⁾, ⁽¹⁾Laboratoire de Cristallographie, CNRS, BP 166, 38042 Grenoble Cedex 09, France and ⁽²⁾Laboratoire de Spectrométrie Physique Université J. Fourier, CNRS (UMR 5588), BP 87, 38402 Saint Martin d'Hères cedex, France
- H-X.2** 9:00 ERBIUM-DOPED SILICA COLLOID/POLYMER NANO-COMPOSITE OPTICAL WAVEGUIDES, L.H. Slooff, M.J.A. de Dood, T. van Dillen, D.L.J. Vossen, A. van Blaaderen and A. Polman, FOM-Institute for Atomic and Molecular Physics, Kruislaan 407, 1098 SJ Amsterdam, The Netherlands
- H-X.3** 9:20 ELECTROMAGNETIC RESPONSE OF CARBON NANOTUBES AND NANOTUBE ROPES, G.Ya. Slepyan, S.A. Maksimenko, Institute for Nuclear Problems, Belarus State University, Bobruiskaya 11, 220050 Minsk, Belarus, A. Lakhtakia, Department of Engineering Science and Mechanics, Pennsylvania State University, University Park, PA 16802-1401, USA, O.M. Yevtushenko, Institute of Radiophysics and Electronics, Nat. Ac. Sci. of Ukraine, Ak. Proskura str. 12, Kharkov, 310085, Ukraine
- H-X.4** 10:10 (2D+1) SPATIAL OPTICAL SOLITONS IN DYE DOPED LIQUID CRYSTAL CELLS, J.F. Henninot⁽¹⁾, M. Debailleul⁽¹⁾, F. Derrien⁽¹⁾, G. Abbate⁽²⁾, M. Warengem⁽¹⁾, ⁽¹⁾Laboratoire de Physico-Chimie des Interfaces et Applications, (EA 2463) Faculté Jean Perrin, SP 18, 62307 Lens Cedex, France, ⁽²⁾INFN Unità di Napoli and Dip. Di Scienze Fisiche, Via Cintia Monte San Angelo, Università di Napoli "Federico II", 80126 Napoli, Italy
- 10:40 **BREAK**

Session XI : MOLECULAR PHOTONICS : MODELIZATION ASPECTS

- H-XI.1** 11:10 Invited COHERENCE SIZES IN THE OPTICAL RESPONSE OF SINGLE MOLECULES, DENDRIMERS AND CHROMOPHORE AGGREGATES, **S. Mukamel**, V. Chernyak, T. Minami and S. Tretiak, Department of Chemistry, University of Rochester, P.O. Box 270216, Rochester, NY 14627-0216, USA
- H-XI.2** 11:40 CHAIN FLEXIBILITY AND NONLINEAR OPTICAL PROPERTIES OF CONJUGATED MOLECULES, M. Del Zoppo, C. Castiglioni, S. Sugliani, G. Zerbi, Dip. di Chimica Industriale, Politecnico di Milano, Piazza Leonardo da Vinci 32, 20133 Milano, Italy
- H-XI.3** 12:00 LINEAR AND NON-LINEAR OPTICAL PROPERTIES OF PUSH-PULL CHROMOPHORES: VIBRONIC AND SOLVATION EFFECTS BEYOND PERTURBATION THEORY, A. Painelli and F. Terenziani Dip. Chimica GIAF Parma University 43100 Parma, Italy
- 12:20 **LUNCH**

Friday June 2, 2000
Vendredi 2 juin 2000

Afternoon
Après-midi

Session XII : MOLECULAR AND MATERIAL ENGINEERING FOR PHOTONICS

- H-XII.1** 14:00 MOLECULAR SWITCH DEVICES REALISED BY PHOTOCROMIC OLIGOTHIOPHENES, A. Yassar⁽¹⁾, N. Rebière-Galy⁽²⁾, M. Frigoli⁽²⁾, C. Moustrou⁽²⁾, A. Samat⁽²⁾, R. Guglielmetti⁽²⁾ ⁽¹⁾LMM, CNRS, 2 rue Henry Dunant, 94320 Thiais, France, ⁽²⁾LCMOM, ERS CNRS 158, Faculté des sciences de Luminy, 163 Av. de Luminy, 13288 Marseille cedex 09, France
- H-XII.2** 14:20 OPTICAL AND MORPHOLOGICAL INVESTIGATIONS OF NON-HOMOGENEITY IN POLYFLUORENE BLENDS, J. Morgado, Instituto Superior Tecnico, Dep. Eng. Quimica, Av. Rovisco Pais, Lisboa, Portugal, R.H. Friend, F. Cacialli, Cavendish Laboratory, Madingley Rd, Cambridge, UK, E. Mons, CDT Ltd Greenwich House, Madingley Rd, Cambridge, UK
- H-XII.3** 14:40 MOLECULAR ENGINEERING OF OCTUPOLAR BIPYRIDYL METAL COMPLEXES, H. Le Bozec, T. Renouard, M. Bourgault, UMR 6509 CNRS-Université de Rennes 1, Campus de Beaulieu, 35042 Rennes, France and C. Dhenaut, S. Brasselet, I. Ledoux, J. Zyss, ENS, 61 avenue du Pt Wilson, 94235 Cachan, France
- H-XII.4** 15:00 CIRCULAR - DIFFERENCE EFFECTS IN SECOND - HARMONIC GENERATION FROM THIN FILMS, C. Sioncke, S. Van Elshocht, T. Verbiest, A. Persoons, Laboratory of Chemical and Biological Dynamics, K.U.Leuven, Celestijnenlaan 200D, 3001 Heverlee, Belgium
- H-XII.5** 15:20 PROPELLER-SHAPED OCTUPOLAR MOLECULES DERIVED FROM TRIPHENYLBENZENE, J. Brunel and A. Jutand, Ecole Normale Supérieure, Département de Chimie (UMR 8640), 24 rue Lhomond, 75231 Paris Cedex 05, France, M. Blanchard-Desce, Ecole Normale Supérieure, Département de Chimie (UMR 8640), 24 rue Lhomond, 75231 Paris Cedex 05, France or UMR 6510, Université Rennes 1, Campus Scientifique de Beaulieu, Bât. 10A, 35042 Rennes, France, I. Ledoux and J. Zyss ENS Cachan, Laboratoire de Photonique Quantique et Moléculaire (UMR 8537), 61 avenue du Président Wilson, 94235 Cachan cedex, France

END OF SYMPOSIUM H