



Universität Hamburg
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Forschungszentrum Borstel
Leibniz-Zentrum für Medizin und Biowissenschaften

2nd Circular:

GERMAN LIQUID CRYSTAL CONFERENCE 2011

39. Arbeitstagung der Deutschen Gesellschaft für Flüssigkristalle (DGFK)

Hamburg 30th March to 1st April 2011

Venue:

University of Hamburg, Faculty of Science, Department of Chemistry,
Lecture Hall B, Martin-Luther-King-Platz 6, 20146 Hamburg

Welcome:

The German Liquid Crystal Society and the Organising Committee cordially invite all participants to Hamburg for the 39th German Liquid Crystal Conference to be held at the University of Hamburg in the Department of Chemistry. We hope that the lectures will inspire to new ideas and fruitful discussions afterwards. Furthermore, if you like to stay a day longer in Hamburg, enjoy the city, its many museums, parks and the harbour.

Volkmar Vill
(Conference Chairman)



General Information:

The German Liquid Crystal Conference 2011 brings together scientists working on mesoscale systems such as low molecular and polymeric liquid crystals, colloids, glycolipids, micelles, membranes, thin films and block copolymers. The topics include the chemical synthesis and instrumental characterisation, the theory and modelling as well as relevant research and applications in the field of biological, photonic and charge transfer systems.

The conference language is English.

More and updated information is on our home page:

<http://www.chemie.uni-hamburg.de/glcc2011/>

Organising Committee:

K. Brandenburg	Research Centre Borstel
H. Bretting	University of Hamburg
T. Gutschmann	Research Centre Borstel
G. Lattermann	DFKG Bayreuth
M. Fröba	University of Hamburg
J. Thiem	University of Hamburg
V. Vill (Chairman)	University of Hamburg
R. Willumeit	Helmholtz-Centre Geesthacht
H. Weller	University of Hamburg

Arrival:

By plane: The S-Bahn station (green sign) is between terminals 1 and 2. From there, go to Barmbek and change to the Underground U3 (yellow line) and leave at Schlump – about 5 minutes walk from the conference venue.

By train. Arriving by train at Hamburg main station (Hauptbahnhof): Take the U2 (red line) to Schlump – about 5 minutes walk to the venue. Alternatively take bus 4 or 5 from Mönckeberg St. to Grindelhof bus stop. This is even closer to the venue (about 1 minute).

By car: There is practically no parking space in the vicinity of the institutes, so this is very inconvenient and is not recommended.

There is an overview of public transport lines at:

<http://www.hvv.de/streckennetz/usar-plan/>

Public Transport:

Each participant will receive a ticket for public transport (busses, U- and S-Bahn) from Wednesday to Friday.

PC-Terminals and Internet Access:

There will be a wireless hot spot with guest access as well as several open PCs for free use.

Meals:

Included in the conference fee are: all coffee breaks, snacks at the get-together as well as the conference dinner. You will have to take care of yourself for breakfast and lunch. There are many coffee shops, restaurants and fast-food shops near the venue with reasonable prices. The Mensa is also within easy walking distance.

Contact:

Volkmar Vill (chairman) University of Hamburg, Faculty of Science
Department of Chemistry, Martin-Luther-King-Platz 6, 20146 Hamburg
Tel.: +49-40-42838-4249

glcc2011@chemie.uni-hamburg.de (Hagen Bretting)

Registration and Information Desk:

The Registration and Information Desk will be in the foyer of the Department of Chemistry and will help with scientific, organisational and financial questions. Participants should register here and collect the conference material and badges. The badges should be worn as a courtesy to other participants and for identification at the Conference get-together and at the Conference dinner.

The registration opens at 10:00 on Wednesday morning.

For registration please see our home-page and the questionnaire at:

<http://www.chemie.uni-hamburg.de/glcc2011/registration/>

Registration fees (until 28.02.2011):

150 € Regular Participant

125 € Member of the DFKG

60 € Students

45 € Accompanying Persons

(including breaks, snacks at the get-together, conference dinner, proceedings book and public transportation). For late registration add 25 € each.

Payment:

Please transfer the registration fee to:

Recipient: Glycoverein,

Bank: Sparkasse zu Lübeck, Breite Straße 18 – 28, 23552 Lübeck, Germany

e-mail: info@sparkasse-luebeck.de, Telefon: 0451 147-147,

Account number: 160028841;

Bank identification code: 23050101

IBAN number: DE72 2305 0101 0160 028841

BIC (=SWIFT): NOLADE 21 SPL

Hotels and Accommodation:

Hotels should be booked via internet or by the tourist information

<http://www.hamburg-tourism.de/>

Hotels near the venue are also listed at:

<http://www.chemie.uni-hamburg.de/glcc2011/accomondation/>

The organizing committee has made a special arrangement with the Hotel “Mercure Hamburg an der Messe”, which is within 3 minutes walking distance of the conference venue (79 Euro/night including breakfast). When booking, mention that you are attending the Liquid Crystal Conference.

A good address for low budget participants is the Etap Hotel Hamburg St. Pauli, which is 3 underground stations and less than 30 minutes from the conference venue.

Final Program:

Wednesday 30th March:

14:00 Welcome Remarks

Chair: Günter Lattermann

14:15 - 15:00 Self-assembly of Bolaphospholipids in Water: Formation of Nanoparticles; Nanofibers and Hydrogels.

Alfred Blume, A. Meister, G. Graf, M. Bastrop, S. Drescher and B. Dobner (Halle)

15:00 - 15:30 Self-assembly of Nanoparticles.

Horst Weller (Hamburg)

15:30 - 15:50 pH- and Salt-Dependent Aggregation Behaviour of Symmetric Single-Chain Bolaphospholipids.

Gesche Graf, S. Drescher, A. Meister, B. Dobner and A. Blume (Halle)

15:50 - 16:10 Ferroelectric and Antiferroelectric Phases of Bent Mesogens with Large Opening Angle.

Martin Kirchhoff, U. Kornek, S. Stern, A. Eremin, R. Stannarius, C. Zhu and C. S. Park (Magdeburg)

16:10 – 16:40 Coffee Break

Chair: Yo Shimizu

16:40 - 17:10 Beam Characteristics of Liquid Crystal Lasers.

Jürgen Schmidtke, C. Mowatt and H.J. Coles (Paderborn)

17:10 - 17:30 Polar Order in Free-Standing Fibres of the B7-Phase.

Ulrike Kornek, S. Stern, R. Stannarius, A. Eremin, F. Araoka, L. Guo, H. Takezoe, A. Jákli, H. Nádasi and W. Weissflog (Magdeburg)

17:30 – 17:50 Orientational Order Parameters of a de Vries-Like Ferroelectric Liquid Crystal: Experimental Comparison Using Polarized Raman Spectroscopy and X-Ray Diffraction.

Alberto Sanchez-Castillo, M. A. Osipov, S. Jagiella, M. Kašpar, V. Hamplová and F. Giesselmann (Stuttgart)

17:50 – 18:10 Influence of Solvent Quality on the Self-Organization of Archetypical Hairy Rods-Branched and Linear Side Chain Polyfluorenes: Rod like Chains Versus “Beta sheets” in Solution.

M. Knaapila, **Vasyl Haramus**, F. B. Dias, L. Almasy, F. Galbrecht, H. D. Burrows, U. Scherf and A. P. Monkman (HC Geesthacht)

18:10 – 18:30 Nematic Textures in Micro fluidic Environment.

Anupam Sengupta, U. Tkalec, and Ch. Bahr (MPI Göttingen)

18:30 - 19:00 Alfred-Saupe-Award

The Alfred-Saupe Price of this year goes to **Günter Baur**, Freiburg.
More about the award at:

<http://www-e.uni-magdeburg.de/liquidcr/honours.shtml>

19:00 - 20:00 Possibility to have a first look at the posters

19:00 - 20:00 Mitgliederversammlung der DGFK, Room 105

20:00 - 22:00 Get-together in the Foyer of the Chemical Institutes

Thursday, 31st March

Chair: Heinz Kitzerow

9:00 - 9:45 New Materials for Polymer-Stabilised Blue Phase.

Norihiko Tanaka, M. Wittek, M.C. Wu, M. Bremer, D. Pauluth and K. Tarumi (Merck, Darmstadt)

9:45 - 10:15 Design Strategies for Ionic Liquid Crystals.

Koen Binnemans, K. Lava, K. Goossens and T. Cardinaels (Leuven/Belgium)

10:15 - 10:35 New 2D-Correlated Structure of a Lyotropic Liquid Crystalline Diol.

Johanna Bruckner, D. Krueerke, and F. Giesselmann (Stuttgart)

10:35 - 10:55 Comparative Study of the Equilibrium Phase Diagrams of Propylene-glycol-Diacrylate / Liquid Crystal Blends
Yazid Derouiche, F. Dubois, R. Douali, C. Legrand, L. Méchernène and U. Maschke (Villeneuve d'Ascq/France)

10:55 – 11:30 Coffee Break

Chair: Sabine Laschat

11:30 - 12:00 Ordering Transitions of Liquid Crystalline Thin Films Driven by In-Situ Enzyme-Induced Hydrogel Degradation.
I-Hsin Lin, L. S. Birchall, R. V. Ulijin, S. B. Webb (Manchester/UK)

12:00 - 12:20 Analysis of the Formation of Polymer/Liquid Crystal Systems Prepared by Ultraviolet and Electron Beam Curing
Ammar Elqidrea, R. Meziane and U. Maschke (Villeneuve d'Ascq/France)

12:20 - 12:40 The Simplest Two-Dimensional Anisotropic Fluids Flow Orientation Coupling in Free-Standing SmC Films.
Kirsten Harth, A. Eremin and R. Stannarius (Magdeburg)

12:40 – 14:00 Lunch

Chair: Carsten Tschierske

14:00 - 14:30 On a Three-Phase Coexistence of Isotropic Phases in the Phytantriol/Water/Ethanol System.
Pawel Pieranski and L. Latypova (Paris-Sud/France)

14:30 - 15:00 Hekates – from the Formation of LC Nano-Structures and Functional, Multichromophore Star Mesogens.
Matthias Lehmann, St. Gloza and M. Jahr (Würzburg)

15:00 - 15:20 Fluorescent Mesogens Based on Rod-Shaped Aromatic Hydrocarbon Cores.
J. Buchs, H. Sawade and **Dietmar Janietz** (Potsdam-Golm)

15:20 - 15:40 Liquid Crystalline Crown Ethers: Effect of Crown Size and Complexation.
Martin Kaller and S. Laschat (Stuttgart)

15:40 - 16:00 2D Manipulation of Dielectrical Microparticles in Nematic Liquid Crystals.
Fedor Podgornov, A. Ryzhkova and W. Haase (Darmstadt)

16:00 -16:20 Photon-controlled isothermal phase transitions among Colr, SmA and Isotropic phases accompanied with the alternative change of molecular anisotropy
D. Tanaka, H. Ishiguro, K. Ohnishi, K. Uchida and **Yo Shimizu**, AIST-Kansai, Japan

16:20 – 19:00 Coffee Break and Poster Session

20:00 - ?? Conference Dinner at the Restaurant “Parlament” in the City Hall

Friday 1st April

Chair: Klaus Brandenburg

9:00 - 9:45 The B4 Banana Phase for Organic Photovoltaics

David. M. Walba, N.A. Clark, E. Korblova, R. A. Callahan, J. M. Richardson, E. Tsai, M. Moran, T. M. Rochelle, R. K. Shoemaker, D. K. Yoon, J. Maclennan, M. Glaser, C. Zhu, D. Chen, R. Shao, D. Coffin, and G. Rumbles

9:45 - 10:15 Structural Assembly of Hydrated Synthetic Glycolipids.

Patrick Garidel, S. Gerber, M. Wulf, M. Roessle, J. Howe, T. Gutschmann, V. Vill and K. Brandenburg (Halle)

10:15 - 10:35 Lysyl-Phosphatidylglycerol Confers Resistance of Staphylococcus Aureus to Antimicrobial Peptides and Impairs Interaction of Peptides with Model Membranes.

Jörg Andrä, T. Goldmann, C. Ernst, A. Peschel and T. Gutschmann (Borstel)

10:35 - 10:55 Interactions of Small Polyphilic Molecules with Lipid Membranes.

Bob-Dan Lechner, A. Kerth, C. Tschierske and A. Blume (Halle)

10:55 - 11:30 Coffee Break

Chair: Regine Willumeit

11:30 - 12:00 Synchrotron Light for Characterizing the Formation of Curved Membranes and Membrane Fusion Processes.

Michael Rappolt (Trieste/Italy)

12:00 - 12:20 Neutralization of Endotoxins by Antimicrobial Peptides.

Yani Kaconis, I. Kowalski, M. Rössle, T. Gutschmann and K. Brandenburg (Borstel)

12:20 - 12:40 Evaluation of Lipopolysaccharide, a Major Bacterial Glycolipid, as a Target for Antimicrobial Peptides and Lipopeptides.

Susana Sanchez-Gomez, I. Moriyón, J. Leiva-León, K. Lohner, K. Brandenburg, R. Jerala, S. E. Blondelle, J. Andrä and G. Martínez de Tejada (Pamplona/Spain)

12:40 – 14:00 Lunch

Chair: Thomas Gutschmann

14:00 – 14:30 Critical Role of Lipid Composition in Membrane Permeabilization by Antimicrobial Peptides

Karl Lohner, D. Zweytick, G. Deutsch, E. Sevcsik, J. Andrä, K. Brandenburg, Y. Shai, S.E. Blondelle, S. Sánchez-Gómez and G. Martínez de Tejada (Graz)

14:30 – 15:00 Possibilities for Biological Nanoscience at the EMBL BioSAXS Beamline at PETRA-III.

Manfred Roessle, V. Haramus, R. Willumeit, D. Svergun and Th. Schneider (Hamburg)

15:00 - 15:20 Organisation of Amphiphilic Liquid Crystals at the Air Water Interface.
Christian Schwieger, S. Reuter, C. Tschierske, J. Kressler and
A. Blume (Halle)

Speakers are indicated in bold.

15:20 - 16:00 Young Scientist's Award

16:00 End of Conference, Concluding Remarks.

17:00 - ? Excursion

Poster Session:

The posters should be mounted Wednesday morning.

Comparative Study on New Chiral, Lactic-Acid Containing Liquid Crystals
F. Brombach and **Dirk Blunk**

Swelling Equilibria in Mixtures of Isotropic Gels in Anisotropic Solvents
L. Bedjaoui, F. Semdani, N. Bouchikhi, **Tewfik Bouchaour** and
U. Maschke (Villeneuve d'Ascq/France)

Polymer/Cristal Liquid Blends Prepared by Electron Beam and UV Radiation :
Correlation Between Rubber Elasticity and Phase Separation
A. Berrayah, A. Olivier, L. Zair, **Tewfik Bouchaour**, U. Maschke
(Villeneuve d'Ascq/France)

Mixtures of 'De Vries' Liquid Crystals with First- and Second-Order
SmA – SmC Phase Transitions
Andreas Bogner, J. C. Roberts, N. Kapernaum, R. P. Lemieux, and F. Giesselmann
(Stuttgart)

Conformational and Vibrational Studies of 2-Ethylhexyl Acrylate / Liquid Crystal
Systems
O. Belaidi, **Tewfik Bouchaour** and U. Maschke (Villeneuve d'Ascq/France)

Liquid Crystalline Guanidinium Ion Pairs
Martin Butschies, S. Sauer and S. Laschat (Stuttgart)

Cruciforms with a Pyrazine Centre – Discotic Liquid Crystals and Acidochromic
Fluorophores
S. Moschel, V. Schmitt and **Heiner Detert** (Mainz)

The Synthesis of Novel Phenylene-Modified Bolaamphiphiles: How Does the
Substitution Pattern Influence the Aggregation Behaviour and the Miscibility wit
Phospholipids?
Simon Drescher, A. Meister, S. Sonnenberger, S. Becker, G. Hause, B. Dobner and
A. Blume (Halle)

Novel Mesophases Formed by X-Shaped Bolaamphiphiles with Oligo (Phenylene-ethynylene) Central Core

Helgard Ebert, M. Prehm, F. Liu, X. Zeng, G. Ungar and C. Tschierske (Halle)

Morphological and Electro-Optical Properties of Methacrylate-Based Polymer/Liquid-Crystal Films

F. Z. Elouali, M. Elouali, **Idriss Moundougou**, and U. Maschke (Villeneuve d'Ascq/France)

Polymer/Liquid Crystal Materials Containing Diamond Nanoparticles

M. Elouali, F. Z. Elouali, C. Beyens, Guy-Joël **Fossi Tabieguia**, O. Yaroshchuk and U. Maschke (Villeneuve d'Ascq/France)

Lyotropic Quasicrystals with 12- and 18-Fold Symmetry

S. Fischer, **Alexander Exner**, K. Zielske, J. Perlich, S. Deloudi, W. Steurer, P. Lindner, and S. Förster (Bayreuth)

Structures at Liquid-Crystal/Liquid Interfaces: Variation of the Liquid Phase

Xunda Feng and Ch. Bahr (Göttingen)

Design of Nematogenic Bent-Core Mesogens

Karina Geese, M. Prehm and C. Tschierske (Halle)

Self-Assembly Properties of B-Glycolipids with Different Types of Alkyl Chains

Sven Gerber, V. Vill, G. Milkereit, K. Brandenburg, P. Garidel, V.M. Garamus and R. Willumeit (Hamburg)

Synthesis and Structure-Property-Relationships of Donor-Acceptor Substituted Star-Shaped Mesogens - A New Design Concept for Photovoltaic Materials?

Steffi Gloza, M. Jahr and M. Lehmann (Würzburg)

???????

Sharmistha Ghosh, (Indien)

Synthesis of Calamitic Liquid Crystals with Laterally Substituted Core and Their Mesomorphic Properties

Frantisek Hampl, M. Cigl, R. Jurok, J. Svoboda, V. Novotná, M. Glogarová and Podoliak (Prague/Czech Republic)

Modified Electroluminescence of an Organic Light Emitting Diode Incorporating a Columnar Perylene Derivative and a Si₃N₄/SiO₂ Bragg Reflector

Olga Kasdorf, B. Ohms, H. Bock, U. Hilleringmann, and H.-S. Kitzerow (Paderborn)

Interaction Mechanisms Between Mycobacteria and Antimicrobial Peptides

Max Koistinen, A. Böhling, G. Helms, S. Willcocks, U. Schaible and Th. Gutschmann (Borstel)

New Class of Synthetic Peptides (Salps) Show Protection Against Septic Shock

Ina Kowalski, Y. Kaconis, G. Martínez de Tejada, T. Gutschmann and K. Brandenburg (Borstel)

Properties of Nanocolloids Based on Ferroelectric LC Mixtures and Gold Nanoparticles with Varying Thickness of the Organic Capping Layers

Artsiom Lapanik, B. Kinhead, I. Chernyaev, A. Rudzki, T. Hegmann and W. Haase (Darmstadt)

Cubosomes and Phase Behavior of the Phytantriol/Water/Ethanol System

Larisa Latypova and P. Pieranski (Paris-Sud/France)

Polar Order in Orthogonal Phases Formed by 4-Cyanoresorcinol Derived Bent-Core Mesogens

Anne Lehmann, C. Keith, M. Prehm, J. K. Vij, Y. P. Panarin and C. Tschierske (Halle)

V-Shaped Benzodithiophenes and Their Nematic Mesomorphism

Matthias Lehmann, J. Seltmann and K. Müller (Würzburg)

Step-Index Silica Fiber with Parallel Liquid-Crystal-Filled Micro-Channel

Alexander Lorenz, H.-S. Kitzerow, M. A. Schmidt, H. Tyagi, N. Joly, M. Scharrer, S. Rammler and P. St. J. Russell (Paderborn)

Triphenylene-Silanes for Direct Surface Anchoring in Binary Mixed Self-Assembled Monolayers

Markus Mansueto, G. Tovar, J. Pflaum and S. Laschat (Stuttgart)

Self Assembly of Nanoparticles in Linear Arrangements Using Optical Storage Media for Nanoimprint Lithography

Isabell Mattern, J. Perlich and A. Meyer (Hamburg)

Generation of Membrane Curvature and Multibudded Tubules Mediated by the Coat Protein Complex II on Artificial Liposomes

Annette Meister, D. Glatte, S. Daum and K. Bacia (Halle)

Fabrication of Magnetic Nanodot Arrays Using Diblock Copolymer Micelles as Templates

Andreas Meyer, N. Franz, H.P. Oepen, S.V. Roth, G. Carbone and T. Metzgerd (Hamburg)

Measurement of the Tension of Freely-Suspended Liquid Crystal Filaments

Michael Morys and R. Stannarius (Magdeburg)

Investigation of Environmental Hazards: Characterization of Commercial LCD Blends

Idriss Moundougou, G.-J. Fossi Tabieguia, Y. Derouiche and U. Maschke (Ville-neuve d'Ascq/France)

Thermotropic and Lyotropic Phase Behaviour of Spaced Alkoxy Disaccharide Glycolipids

Ariane Munk, S. Raabe and V. Vill (Hamburg)

Preparation of Defined Micro- And Nanometer-Sized Structures from Liquid Crystalline Elastomers

Christian Ohm, R. Rix, D. Wenzlik, C. Serra and R. Zentel (Mainz)

Freely Suspended Smectic Films in Aqueous Environment
Karthik Reddy Peddireddy and Ch. Bahr (Göttingen)

Reaction-Diffusion Model for Holographic Polymer-dispersed Liquid Crystals Utilizing NMR Data of the Diffusion Coefficients

Andreas Redler, A. Hoischen, M. Tang, C. Schmidt and H.-S. Kitzerow (Paderborn)
Trisriazolotriazines with π -Conjugated Branches – Fluorescent Discotic Liquid Crystals
S. Glang, D. Borchmann, **Thorsten Rieth** and H. Detert (Mainz)

Chirality-Induced Changes of Micellar Shapes
S. Glässel, **Florian Schörg** and F. Giesselmann (Stuttgart)

Influence of a Facial Amphiphile on Lipid Model Systems
Peggy Scholtysek, A. Achilles, S. Drescher, C.-V. Hoffmann, B.-D. Lechner, A. Meister, S. Reuter, C. Tschierske, J. Kreßler, K. Saalwächter, K. Edwards and A. Blume (Halle)

Effects of Counterions on Photoconductivity in Columnar Mesophases
Peter Staffeld, M. Kaller, S. Laschat and F. Giesselmann (Stuttgart)

Ionic Liquid Crystals with 5-Phenylpyrimidine Building Block
Gundula Starkulla, S. Laschat (Stuttgart)

The Role of Ester Group Orientation on Mesomorphic Properties of Bent-Core Liquid Crystals: From Lamellar to Nematic Phases
Jiri Svoboda, M. Kohout, V. Kozmík, V. Novotná and M. Glogarová (Prague/Czech Republic)

Plateau Borders of Smectic Liquid Crystalline Films
Torsten Trittel, R. Aldred and R. Stannarius (Magdeburg)

Microscopic Study of the Fréedericksz Transition in a Liquid Crystal Embedding a Microdisk Resonator
Martin Urbanski, K. A. Piegdon, C. Meier and H.-S. Kitzerow (Paderborn)

Nanocomposite Materials for Optical and Sensor Devices
M.V. Yakemseva and **Nadezhda, V. Usol'tseva** (Ivanovo/Russia)

Incorporation of Inorganic Nanorods into Cholesteric Liquid Crystals
Daniel Wenzlik, C. Sönnichsen, and R. Zentel (Mainz)

ω -Nitrogenfunctionalized Glycolipids -Thermotropic and Lyotropic Phase Behavior -
Matthias Wulf, V. Vill, K. Brandenburg, P. Garidel, S. Hauschild and S. Förster (Hamburg)

Presenting person in bold

Acknowledgement:

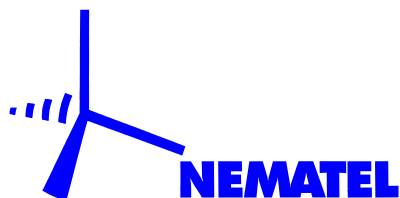
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Curtain Call

The music during the get-together will be brought to you by the music band:

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