

GLCC 2022

Program Book

Monday, March 28 th			Tuesday, March 29 th			Wednesday, March 30 th		
Time			Time			Time		
			8:30	I2	X. Zeng	8:30	I4	L. Sosa Vargas
			9:00	O7	V. Punjani	9:00	O16	R. Troiville-Cazilhac
			9:20	O8	P. Rybak	9:20	O17	L. Honaker
			9:40	O9	C. Schilling	9:40	O18	G. Scalia
			10:00	Tea/Coffee		10:00	Tea/Coffee	
			10:30		Laudatio	10:30	I5	D. Singh
10:45	Registration		10:45	Saube Award Lecture (J.L. Serrano)		11:00	O19	K. Harth
			11:15		Laudatio	11:20	O20	C. Klopp
			11:30	Vorländer Lecture (R. Mandle)		11:40	O21	T. Trittel
			12:00	Lunch		12:00-12:30	Student Awards and Closing	
13:00	Opening Ceremony							
13:15	I1	T. Bellini	13:30	I3	M. Bremer			
13:45	O1	B. Zhang	14:00	O10	F. Caimi			
14:05	O2	F. Kolb	14:20	O11	E. Zavvou			
14:25	O3	T. Neumann	14:40	O12	P. Nacke			
14:45	Tea/Coffee		15:00	Tea/Coffee				
15:15	O4	M. Alaasar	15:30	O13	N. Sebastián			
15:35	O5	A. Kappelt	15:50	O14	N. Scheuring			
15:55	O6	P. Kaszyński	16:10	O15	M. Beira			
16:15	Poster Appetizer		16:30	Poster Appetizer				
16:35-17:50	Poster 1 /Odd Posters		16:45-18:00	Poster 2/Even Posters				
19:00 - 23:00	Wine Tasting with Light Meal (Residenz)		19:30-23:30	Conference Dinner (Residenz)				



Book of Abstracts

48th German Liquid Crystal Conference
March 28th to 30th, 2022
– Würzburg –

For additional information please visit the conference site:

<https://www.chemie.uni-wuerzburg.de/glcc2022/home>

or scan the QR-Code



Frankonian Fountain at the Residenz – Meeting Point for the Wine Tasting

Programme Book:

© Prof. Matthias Lehmann, Nikolai Scheuring

Würzburg 2021, Germany

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The advertisement is a purple rounded rectangle. It features the Merck logo in red in the top right corner. The text "2022 RESEARCH CHALLENGE" is in white, followed by "FERROELECTRIC NEMATIC MATERIAL" in large, bold, light blue letters. Below this is the website URL "researchchallenges.MERCKgroup.com" in white. On the left, there is a stylized white "M" logo with a red and blue outline. A red button with the text "Apply Now" is positioned below the "M" logo. On the right side, there is a circular inset image showing a microscopic view of a ferroelectric nematic material, characterized by colorful, swirling patterns.

Welcome Address

Welcome to the 48th German Liquid Crystal Conference 2022 (GLCC2022) here in Würzburg Germany. This meeting is very special. After three years during which the pandemic situation prevented an on-site conference, it is the first German Liquid Crystal Meeting that is happening as an almost conventional symposium with direct discussions face-to-face and social events like the conference dinner and wine tasting, which we have missed for so long. Since 2016, there have been several binational meetings with the British, Benelux and Polish Liquid Crystal Societies, but the current GLCC2022 is now a true international and European meeting with participants from France, Germany, Great Britain, Italy, Luxembourg, The Netherlands, Poland, Portugal, Spain, India and Taiwan. This shows that it is possible to work jointly and peacefully together over borders of countries and ethnical limits, to exchange data and experiences focussing towards a single aim – to increase the scientific knowledge and make the world a little better in the future. This universal target is especially important in these times considered a political turning point in European history.

The city of Würzburg is especially fascinating, with its Residence and the Residence Gardens, a UNESCO World Heritage site, where the conference dinner and the wine tasting will take place. Its construction, planned by the famous architect Balthasar Neumann, started in 1720 and lasted almost one whole century. A miracle prevented this exceptional site from destruction during the World War II.

The host of the conference is the University of Würzburg. Its foundation dates back to the year 1402. Since then, Würzburg has been a place of scientific research and is well known for important discoveries, including X-rays, discovered by Wilhelm Conrad von Röntgen (1st Nobel Prize in Physics, 1901) and the Sugar Chemistry by Emil Fischer (Nobel Prize in Chemistry, 1902). We hope that the conference location will provide the ideal environment for fruitful scientific discussions and the generation of new ideas and new collaborations.

This booklet will give you the most important information on the organisation of the conference (oral and poster sessions, WLAN access, restaurants for lunch, social events). The scientifically more comprehensive Book of Abstracts can be downloaded from our website (please use the QR-Code on the cover page).

Thank you for attending the conference. It is your personal and scientific contribution that will make this meeting a great success! We also express sincere thanks to our sponsors, without whose invaluable support this conference would not have been possible.

The Conference Chairs

Matthias Lehmann (University of Würzburg) and Heiner Detert (University of Mainz)



AOK lecture hall and Covid regulations: The AOK lecture hall is located on the ground floor (atrium) of the lecture building Z6. It has up to 84 seats which are indicated with corresponding numbers. Participants need to take these seats to guarantee the necessary distance of 1.5 m within the audience. According to present COVID regulations, participants need to wear FFP2 masks within the building until they maintain seated with the 1.5 m distance to the next person. The conference takes place under 2G regulations i.e. the participants can enter the lecture hall either when they are fully vaccinated or recovered from COVID. This has to be demonstrated at the registration desk with the COVID certificate or equivalent documents.



Oral Presentations: All oral presentations and the poster appetizers will be given in the AOK lecture hall of the central seminar and lecture building Z6 of the University of Würzburg at the Hubland Campus. Invited talks are planned 25 minutes + 5 minutes discussion, oral talks 15 minutes + 5 minutes discussion and poster appetizers are restricted to two minutes. The poster appetizer presentations must be uploaded on the conference laptop in order to minimise the switching time between presenters.

ZOOM: The lectures will be captured with a digital conference tool and streamed via a ZOOM Link for those participants who cannot join us in the lecture building. They will not be recorded. Please note that the conference is an on-site event. Screen sharing will be provided only in exceptional cases.

Meeting-ID: 984 8637 8441

Pass Word: 958486

Tea / Coffee breaks will be offered in the atrium of the conference building, near the lecture hall.

Poster Presentation: The posters sessions will take place on the first floor of the lecture building (exhibition space, seminar room 1.002 and 1.003). The poster walls are provided with magnets to attach the poster without damage. The poster should be up during all the conference, but please remove your poster before 13:00 h on Wednesday!

Please note that the Poster Sessions are subdivided in **Odd (Poster Session 1, Monday)** and **Even (Poster Session 2)** posters. We ask all poster presenters to stay at their posters and respect this subdivision in order to give all scientists a chance for discussion. Irrespective of this subdivision, interested colleagues may visit and discuss all posters during tea / coffee breaks.

Online Access: At the Hubland Campus the conference participants will have free online access via Bayern WLAN (@BayernWLAN + accept pop up window "terms of use") or alternatively the eduroam WiFi service, if installed on your device.

Lunch (Tuesday): 90 minutes are provided for the lunch break. There are several locations for lunch in a walking distance (see map on the next page). In addition, the supermarket provides sandwiches, a warm buffet station, and a bakery. The Mensateria of the Studentenwerk just on the opposite side of the lecture hall offers students prizes only for students with a student identity card. Students from outside Bavaria must pay cash for which there is a 10 % supplement. All other guests pay the guest price and the supplement for cash payment. Cost for students around 5.50 € and for guests around 9.00 € including a beverage.

Social Events

Wine Tasting with Light Meal: The wine tasting takes place in the "Staatlicher Hofkeller" which is located in the cellar of the Residence. It is important to gather at the meeting point "Frankonian Fountain" on Monday 28.03. 2022 at 19:00 h **on time**. The light meal consists of a sausage and cheese plate for participants without preference and a cheese plate for vegetarians, while for vegan participants will be provided a plate of antipasti. Participants, who do not drink wine will get non-alcoholic beverages.

Conference Dinner:

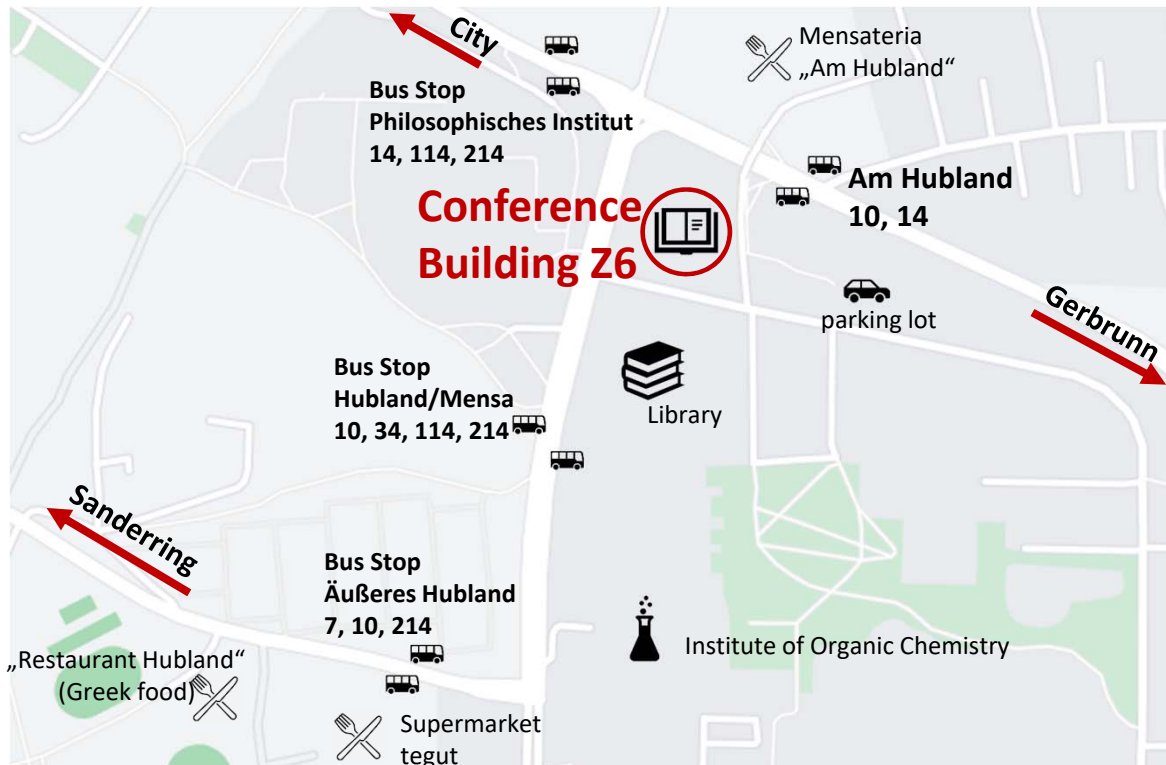
The conference dinner takes place in the restaurant B. Neumann, which is located in building to the right of the Residence. It starts on Tuesday 29.03.2022 at 19:30 h with a reception (alcoholic and non-alcoholic aperitif).

Please remember the choice of meal you selected from the menu (see the Email from the organisers). Beverages (beer, wine, soft drinks, water, coffee specialities and one digestif) are free until 23:00 pm (last order). The event ends at 23:30 h.

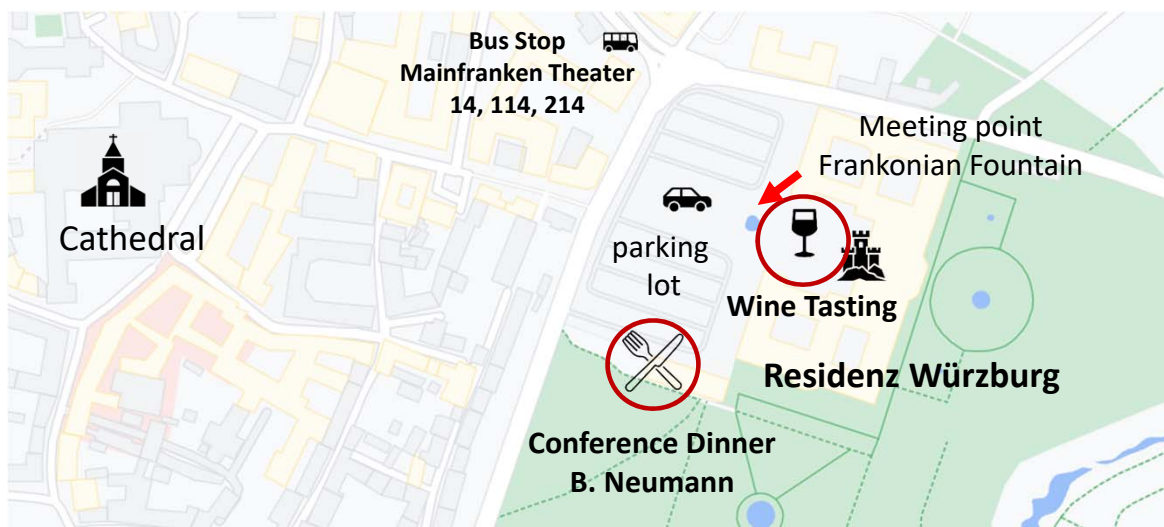
COVID regulations for the social events (Wine tasting and Conference Dinner):

The catering of the participants can be carried out as an 3G event, i.e. masks must be worn until seated.

The conference will take place at the Campus Hubland South in the Central Lecture and Seminar Building (Zentrales Hörsaal- und Seminargebäude) Z6 of the University of Würzburg (see map below). It's recommended to get off the public bus at the closest bus stop „Am Hubland“.



The social events, the Wine Tasting and the Conference Dinner, are located in the Residenz Würzburg close to the city centre and most of the hotels. The buses 14, 114 and 214 arrive nearby at the bus stop „Mainfranken Theater“ starting from „Am Hubland“ in the direction of the city.



Bus information: City Center – Hubland

For detailed bus schedule please go to:

https://www.vvm-info.de/pdf_fahrplan/

or scan the QR-Code



The buses 14, 114 or 214 connect the city centre (bus stops Busbahnhof, Barbarossaplatz, Mainfrankentheater) with the Campus Hubland.

Please get off bus 14 at the bus stop „Am Hubland“ and the buses 114 and 214 at „Hubland/Mensa“

Bus Stop	14	114	214
Busbahnhof	7:49 // 8:07	7:57	8:04
Barbarossaplatz	7:52 // 8:10	8:00	8:07
Mainfrankentheater	7:53 // 8:12	8:01	8:08
...
Philosophisches Institut	8:01 // 8:21	8:12	8:17
Am Hubland	8:02 // 8:22	---	---
Hubland/Mensa	---	8:14	8:18

The bus 10 can be used from „Sanderring“ and we recommend you get off at „Am Hubland“ right after „Hubland/Mensa“

Bus Stop	10
Sanderglacistraße (At „Sanderring“, nearby the „Emek Döner“)	7:54 // 7:58 // 8:05
Studentenhaus	7:55 // 7:59 // 8:06
...	...
Äußeres Hubland	8:06 // 8:10 // 8:17
Hubland/Mensa	8:08 // 8:12 // 8:19
Am Hubland	8:09 // 8:13 // 8:20

10:45	Registration
13:00	Opening Ceremony
Chair	Heiner Detert
13:15	I1 Tommaso Bellini On the Liquid Crystal Ordering of Nucleic Acids and its Intimate Connection to Watson-Crick Pairing
13:45	O1 Bingru Zhang Biosensing of Chirality in Lyotropic Chromonic Liquid Crystals
14:05	O2 Florian Kolb Liquid Crystalline Suspensions of Chitin Nanocrystals: Colloidal Stability, Size Effects and Helical Twisting Power
14:25	O3 Thorben Neumann Dynamic Covalent Chemistry – A Way towards Adaptive and Reusable Materials
14:45	Coffee / Tea
Chair	Sabine Laschat
15:15	O4 Mohamed Alaasar Chirality Induction in Photosensitive Supramolecular Polycatenars
15:35	O5 Alexander Kappelt Photoinduced “Turn-On” Fluorescence in Supramolecular Liquid Crystals
15:55	O6 Piotr Kaszyński Ring-Fused 1,4-Dihydro[1,2,4]triazin-4-yl Radicals as Paramagnetic Building Blocks for Functional Liquid Crystals
16:15	Poster Appetizer 1
16:35	Poster 1 / Odd Posters
17:50	End of the Scientific Programm Day 1
19:00	Wine Tasting with Light Meal / Residenz Meeting Point, Fountain

Chair	Matthias Lehmann
8:30	I2 Xiangbing Zheng Ferro- and Antiferro- Chirality in Columnar and Bicontinuous Phases
9:00	O7 Vidhika Punjani Multi-Stimuli Responsive Chiral Bent-Shaped Liquid Crystals Exhibiting Wide Temperature Range of Blue Liquid Crystalline Phase
9:20	O8 Paulina Rybak Giant 'Antichiral' Unit Cell Made of Chiral Columns
9:40	O9 Christopher Schilling Tailoring Mesomorphic IDA-Boronates: New Outfit = New Properties?
10:00	Tea / Coffee
	Saupe Award and Vorländer Lecture
Chair	Heinz Kitzerow
10:30	Laudatio – Matthias Lehmann
10:45	Saupe Award Lecture: José Luis Serrano Multifunctional Materials Based On Mesogenic Structures That Mimic Macroscopic Tools And Devices
11:15	Laudatio – Matthias Bremer
11:30	Vorländer Lecture: Richard Mandle The Unexpected Discovery of a New Nematic Phase
12:00	Lunch
Chair	Tommaso Bellini
13:30	I3 Matthias Bremer Highly Polar Liquid Crystals: Properties, Syntheses, and the Bright Future of LCs
14:00	O10 Frederico Caimi Ferroelectric Nematics in Microchannels: Switching and Propagation of Order
14:20	O11 Evangelia Zavvou Director Reorientation in Ferroelectric Nematics Subjected to External Electric and Magnetic Fields
14:40	O12 Pierre Nacke New Example of a Ferroelectric Nematic Phase Material

15:00	Tea / Coffee
Chair	Matthias Bremer
15:30	O13 Nerea Sebastián Investigations of Two Ferroelectric Nematic Materials: RM734 and DIO
15:50	O14 Nikolai Scheuring Approaching the Holy Grail of Liquid Crystal Science - Biaxial Nematic Phases from Mixtures of Roof-Shaped Mesogens
16:10	O15 Maria Beira Local Order Dynamics in Isotropic Ionic Liquids
16:30	Poster Appetizer 2
16:45	Poster 2 / Even Posters
18:00	End of the Scientific Programm Day 2
19:30	Conference Dinner / Residenz B. Neumann

Chair	Jan Lagerwall
8:30	I4 Lydia Sosa Vargas Self-Organized (Macro)molecular Semiconducting Materials for Electronic Applications
9:00	O16 Robin Troiville-Cazilhac Light-Emitting Liquid Crystals for Optoelectronic Applications
9:20	O17 Lawrence W. Honaker Gazing into the (Liquid) Crystal Ball: Advances towards Developing Specific Sensors with Chiral Nematic Liquid Crystal Droplets
9:40	O18 Giusy Scalia Enhanced Electro-Optic Switching with Large Graphene Flakes in the Nematic Phase
10:00	Tea / Coffee
Chair	Frank Gießelmann
10:30	I5 Dharmendra Pratap Singh Charge Transport Behaviour in Supramolecular Systemes
11:00	O19 Kirsten Harth Defect Interactions in Liquid Crystals
11:20	O20 Christoph Klopp Coarsening of 2D Emulsions in Free-Standing Smectic Films
11:40	O21 Torsten Trittel Mechanically Induced Spontaneous Undulations of Smectic Films
12:00	Student Awards and Closing of the Conference

P1	Lisa Gerbig: Unconventional Porphyrin Star Mesogenes: New Donor-Acceptor Dyads Producing Photocurrents?
P2	Katja Noll: Nucleobases as Pseudo Guests in Star-Shaped Mesogens
P3	Paul Runge: Synthesis and Characterisation of Hexasubstituted Oligothiophen Star Mesogene with PBI Guest Molecules
P4	Aparna Prasad: Low Clearing Zinc Phthalocyanine Star Mesogens
P5	Maximilian Baumann: Incorporation of Fullerene C60 into Polar Phases of Umbrella-Shaped Subphthalocyanines via Covalent Binding
P6	Anselm Herzog: Umbrella Shaped Starmesogenes: Subphthalocyanines with Benzothienobenzothiophene Arms
P7	Pascal Weinberger: Phase Tuning of Ionic Liquid-Crystalline Tricyanoborates
P8	Llorenç Rubert: Self-Assembly and Photophysical Properties of New Liquid- Crystalline Cyanines
P9	Felix Kraus: Making Supramolecular Blue Phase Liquid Crystals Stable for Application
P10	Atefeh Emamdoust: The Phase Transition and Dielectric Spectroscopy of Graphene Oxide Liquid Crystal
P11	Alejandro Martínez-Bueno: Promoting Triphenylamine-Containing Columnar Architectures with Hydrogen Bonded Rosettes of Cyanuric Acid and Melamine
P12	Asmita Shah: Analysis of Charge Transport Behavior in the Extrinsic Semiconducting Discotic Matrix via Time-of-Flight Technique
P13	Patrycja Szamweber: N-Fused Planar Blatter Radicals – Development of New Building Blocks for Paramagnetic Liquid Crystal Materials
P14	Vincent Kilian: Synthesis and Analysis of New Star-Shaped Fluorescent Discotic Liquid Crystals
P15	Matthias Jochem: Studies on the Isomerization of Liquid-Crystalline Tristriazolotriazines
P16	Max Ebert: Combining Metal Clusters and Cationic Mesogens to Near Infrared Emissive Lamellar Ionic Liquid Crystals
P17	Tiago Eusébio: Lyotropic Ionic Liquid Crystal Gels: Formation and Structures (ONLINE)
P18	Selina Itzighel: True Liquid Crystal Templating in Emulsions
P19	Sebastian Marino: Lyotropic Phase Diagram of an Ionic Liquid Crystal
P20	David Becker: Influence of Evaporation Rates on the Alignment of Perylene-3,4,9,10-tetracarboxyl-tetraethyl Ester
P21	Jürgen Schmidtke: Resonances and Coupled Modes in Cholesteric Ring Resonators
P22	Heinz Kitzerow: Polarization Sensitive Optical Tweezers Based on a Geometric-Phase Metasurface

- P23 **Charlotte Vogler:** Design of Ordered Mesoporous Silica with Highly Defined, Ultra-Large Mesopores
- P24 **Jorge Labella:** Polar, Columnar Thermotropic and Lyotropic SubPc-Based Liquid Crystals: Molecular Design, Synthesis and Characterization.
- P25 **Litwin Jacob:** Tunable Intermolecular Charge Transfer in Ionic Liquid Crystalline Derivatives of the [*closo*-B₁₀H₁₀]²⁻ Anion
- P26 **Hajnalka Nádas:** Magnetic Dynamics in Dispersions of Ferromagnetic Nanoplatelets: Effect of the Surfactant
- P27 **Carlota Auría-Soro:** Self-Assembly of L-Glutamide-Based *Bent-Core* Compounds
- P28 **Mahshid Teymouri:** S-Fused Planar Benzo[e][1,2,4]triazinyl Radicals - Development of New Structural Elements for Paramagnetic Liquid Crystalline Materials
- P29 **Szymon Kapuściński:** Discotic Liquid Crystals derived from the Blatter Radical
- P30 **Pemika Hirankittiwong:** Photo-Driven Anchoring and Phase Transitions in Azo-Containing Bent-Core Liquid Crystals
- P31 **Iván Marín:** Preparation of Films for Nanoporous Membranes: In-Situ Polymerization
- P32 **Kevin Mall Haidaraly:** Insight on Mesomorph Polyoxometalate-Based Hybrids Materials for Optoelectronic Applications
- P33 **Jan Rettig:** Lyotropic Liquid Crystals (LLCs) and Residual Dipolar Couplings (RDCs) – A Dream Team
- P34 **Sebastian Wachsmann:** Self-Assembly of Ionic Liquids Based on Guanidinium Tetraphenyl-ethene Cations
- P35 **Yi-Ru Chen:** Design, Synthesis and Characterization of Asymmetric Dibenzo[*a,c*][1,2,5]thia-diazolophenazine Mesogens (ONLINE)
- P36 **Michael Gölz:** Synthesis and Investigation of Homopolyglutamates for Structure Elucidation with NMR in Lyotropic Liquid Crystal Phases
- P37 **Shallu Dhingra:** An Electron-Deficient Tris(triazole)-Based Discotic Liquid Crystal that exhibit Fast Electron Transport (ONLINE)
- P38 **Tobias Thiele:** A Modular Approach Towards a Photoinduced Helix Inversion in Hydrogen-Bonded Chiral Nematic Liquid Crystals
- P39 **Silvia del Moral:** Preparation and Study of Chiral Nanoporous Functional Materials
- P40 **Michael Müller:** Self-Assembly and Biological Activities of Ionic Liquid Crystals derived from Aromatic Amino Acids