

## Curriculum Vitae

Name : Dr. Daniel Krüerke  
 Date of birth : 17. 06. 1964 in Berlin  
 Nationality : German  
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### Education

May 1999	Examination for doctorate; <i>Dr. rer. nat.</i> , Technical University of Berlin (TU-Berlin).
Jan 1993 - Dec 1998	Experimental and theoretical work in the frame of my PhD thesis.
Apr 1985 - Dec 1992	Study of chemistry at TU-Berlin. Final examination Master of Science.
Dec 1983 - Apr 1985	Education as Software developer at "Wittstock Programming", Berlin.
Dec 1983	High School: Theodor-Heuss-Gymnasium, Berlin.

### Further education

Feb 2007 - Aug 2006	<b>"Management for Growth Programme"</b> , (Team building, project management). Scottish Enterprise Fife, Glenrothes, Scotland.
Oct 2004	<b>"Introduction to Silicon Processing"</b> , Scottish Microelectronics Centre, Edinburgh, Scotland.

### Employment

Now - July 2010	<b>Ita Wegman Clinic</b> , Switzerland. Head of clinical research.
July 2010- Nov 2009	<b>Academic Councillor</b> , Germany. Institute of physical chemistry at the University of Stuttgart
Nov 2009- Nov 2007	<b>Ita Wegman Clinic</b> , Switzerland. Scientist in clinical research.
May 2007- Oct 2007	<b>LC-Lab Bandol</b> , France. Consultancy for research, development and production.
Apr 2007 - Aug 2000	<b>Forth Dimension Displays Ltd.</b> , Dalgety Bay, Schottland. Principal scientist and head of the Liquid Crystal R&D group.
July 2000 - May 2000	<b>Liquid Crystal Institute (LCI)</b> , Kent, Ohio, USA. Research assignment.
July 2000 - Dec 1999	<b>Technical University Berlin</b> , Germany. Research assistant at the Sonderforschungsbereich 448. "Mesoscopically structured composite systems".
Nov 1999 - Feb 1999	<b>Chalmers University of Technology</b> , Göteborg, Sweden. Postdoc position in the European network project: "ORCHIS" Optical Research on Chiral Systems.
Nov 1997 - Oct 1997	<b>Pac-Tech, Berlin</b> . "Wafer-scale electro-less Nickel/Gold under bump metallization (UBM)". Service contract.
Dec 1998 - Jan 1991	<b>Technical University Berlin</b> , Germany. Research assistant at the Sonderforschungsbereich 335, "Anisotropic Fluids" (Prof. G. Heppke).
Dec 1990 - Jan 1989	<b>Technical University Berlin</b> , Germany. Special research project (6/09), "Metal-ion binding on photo-receptor membranes".
Dec 1988- Feb 1984	<b>KP-Berlin</b> Foundation of a software company, development of computer-programs for accounting.

**Languages:** Native **German**, fluent **English**.

## Scientific collaborations:

### National (Germany):

Halle-Wittenberg  
Arbeitsgruppe "Flüssigkristalline Systeme"  
an der Martin-Luther- Universität

Technische Universität Berlin  
Universität Potsdam, Teltow  
Humboldt Universität Berlin  
Freie Universität Berlin  
Phillips Universität Marburg  
Universität Hamburg  
Universität Kaiserslautern  
Universität Stuttgart

Universität Leipzig  
Darmstadt (Merck)  
Mainz (Nematel)  
Fraunhofer-Institut für Angewandte  
Polymerforschung Potsdam (FHG)  
Wiesbaden (AZ Clariant)

(Dr. A. Hauser)  
(Prof. A. Saupe)  
(Dr. Jan Lagerwall)  
(Prof. K. Praefcke)  
(Dr. D. Janietz)  
(Prof. J. Rabe)  
(Prof. W. Helfrich)  
(Prof. J. H. Wendorff)  
(Prof. V. Vill)  
(Prof. H.-G. Kuball)  
(Prof. H. R. Trebin)  
(Prof. F. Giesselmann)  
(Prof. F. Kremer)  
(Dr. V. Reiffenrath)  
(Dr. R. Eidenschink)  
(Dr. H. Sawade)  
  
(Dr. R. Wingen)

### International:

Sweden (Chalmers - Univers. of Technology)  
USA (Kent - Ohio)  
USA (Philadelphia - Swarthmore College)  
USA (Boulder - University of Colorado)  
USA (Longmont - Displaytech)  
Japan (Tokyo - Institute of Technology)  
Slovenia (Ljubljana - University)  
Russian (Ivanovo - State University)  
Georgia (Tbilisi - Academy of Science)  
U.K. (Hull - Kingston Chemicals)  
U.K. (York - University)  
U.K. (Cambridge - Dow Corning)  
U.K. (Cambridge - University)  
France (Optogone)  
France (LC-Lab Bandol)  
Switzerland (Hiscia)  
Switzerland (ROLIC)

(Dr. P. Rudquist)  
(Prof. A. Jakli)  
(Prof. P. Collings)  
(Prof. N.A. Clark)  
(Dr. Mark Handschy)  
(Prof. H. Takezoe)  
(Dr. M. Cepic)  
(Prof. N.V. Usol'tseva)  
(Prof. G.S. Chilaya)  
(Dr. M. Hird)  
(Prof. J. Goodby)  
(Dr. T. Clapp)  
(Prof. W.A. Crossland)  
(Dr. K. Heggarty)  
(Prof. S.T. Lagerwall)  
(Dr. S. Baumgartner)  
(Dr. M. Stalder)

## Publications:

### Journals / Books

No.	Title	Authors	Reference
	"Systematic Variation of Length Ratio and the Formation of Smectic A and Smectic C Phases"	N. Kapernaum, C. Scott Hartley, J. C. Roberts, F. Schoerg, D. Krueerke, R. P. Lemieux, F. Giesselmann	ChemPhysChem (2010), 11, 2099 – 2107
33	"Helical Nanofilament Phases"	L.E. Hough, H.T. Jung, D. Krüerke, M.S. Heberling, M. Nakata, C.D. Jones, D. Chen, D.R. Link, J. Zasadzinsky, G. Heppke, J.P. Rabe, W. Stocker, E. Kórblova, D.M. Walba, M.A. Glaser, N.A. Clark	Science 325 (2009) 456-460
32	"Real-time Diffractive Video Projector Employing Ferroelectric LCOS SLM"	D. Krüerke, E. Buckley	Display Devices, Fall (2006) 23-25
31	"Real-time Diffractive Video Projector Employing Ferroelectric LCOS SLM"	D. Krüerke, M. Birch, L. Banks, E. Buckley, A. Cable, N. Lawrence, P. Mash	SID Digest (2006) 2018-21
30	"Freeze Fracture and AFM Studies of the Liquid Crystal Dark Conglomerate and B4 Phases"	Hough, L. E., Spannuth, M., Jung, H. J., Zasadzinski, J., Krüerke, D., Heppke, G., Walba, D., Clark, N.	Bull. Am. Phys. Soc., 50 (2005) 223
29	"Speed May Give Ferroelectric LCOS Edge in Projection Race"	D. Krüerke	Display Devices, Fall (2005) 29-31
28	"Tiny displays look poised for a bright future"	D. Krüerke	Opto & Laser Europe June (2004) 33-37
27	"Ferroelectric Liquid Crystals Put on a Good Show"	D. Krüerke and R. Joshi	Photonics Spectra July (2004)
26	"Silicon backplane ferroelectric liquid crystal spatial light modulator for uses within an optical telecommunications environment"	K.Heggarty, B.Fracasso, J.L. de Bougrenet de la Tocnaye, M.Birch, D. Krüerke	Ferroelectrics, 312 (2004) 39-55
25	"Light shutters and electro-optical storage devices from antiferroelectric liquid crystals of bent-shape molecules"	A. Jakli, L.-C. Chien, D. Krüerke, S. Rauch, H. Sawade, P. Bault, G. Heppke, K. Fodor-Csorba, G. G. Nair	Proc. SPIE 5003, 73 (2003)
24	"Liquid crystal fibres of bent-core molecules"	A. Jáklí, D. Krüerke, G.G. Nair	Physical Review E, vol. 67, Issue 5 (2003)
23	"Nematic Discotic Liquid Crystals"	G. Heppke, D. Krüerke	Encyclopedia of Materials: Science and Technology (2003) pp. 6046-6051 / ISBN: 0-08-0431526,
22	"Molecular Arrangements and Reorientation behaviour in a dibenzopyrene derivative Ferroelectric Columnar Liquid Crystal as Studied by Time-resolved FT-IR Spectroscopy"	S.V. Shilov, M. Müller, D. Krüerke, G.Heppke, H. Skupin, F. Kremer	Physical Review E, 65 (2002) 021707-18
21	"SXGA Resolution FLC Microdisplays"	M. Birch, D. Krüerke, C. Yates, A. Macartney, D. Peden, D. Coates	SID Intl. Digest Tech. 33,1 (2002) 954-957
20	"Light shutters from antiferroelectric liquid crystals of bent-shaped molecules"	A. Jáklí, D. Krüerke, H. Sawade, L-C. Chien, G. Heppke	Liquid Crystals, 29, 3 (2002) 377-381
19	"Electro-optical switching and storage effects in liquid crystals of bent-shape molecules"	A. Jáklí, L-C. Chien, D. Krüerke, S. Rauch, H. Sawade, P. Bault, G. Heppke, K. Fodor-Csorba, G. G. Nair	Proc Int Disp Workshops, 9, (2002) 17-20
18	"Phases, phase transitions and confinement effects in a series of antiferroelectric liquid crystals"	J. P. F. Lagerwall, D. D. Parghi, D. Krüerke, F. Gouda, P. Jägemalm	Liquid Crystals, 29, 2 (2002) 163-178
17	"Evidence for triclinic symmetry in smectic liquid crystals of bent-shape molecules"	A. Jakli, D. Krüerke, H. Sawade, G. Heppke	Physical Review Letters, 86, 25 (2001) 5715-5718
16	"Chirality in discotic lyomesophases"	H. Sawade, I. Drevensek Olenik, D. Krüerke, G. Heppke	Mol. Cryst. Liq. Cryst., 367, (2001) 529-536
15	"Glasslike character of molecular ordering in discotic lyomesophases"	I. Drevensek Olenik, L. Spindler, M. Copic, H. Sawade, D. Krüerke, and G. Heppke	Physical Review E, 65 (2001) 11705 1-9
14	"Electro-optical devices from banana-shaped liquid crystals"	A. Jáklí, L-C. Chien, D. Krüerke, H. Sawade, G. Heppke	SID Intl. Digest Tech. Papers, XXXII, (2001) 124-127
13	"Electrically Tuneable Cholesteric Mirror"	D. Krüerke, N. Gough, G. Heppke, S.T. Lagerwall	Mol. Cryst. Liq. Cryst., 351 (2000) 69-78

12	"Ferroelectric Switching of Chiral Discotic Lyomesophases"	D. Krüerke, P. Rudquist, S.T. Lagerwall, H. Sawade, G. Heppke	Ferroelectrics, 243 (2000) 207-220
11	"The Hysteretic Behaviour of 'V-shaped Switching' Smectic Materials"	P. Rudquist, D. Krüerke, S.T. Lagerwall, J.E. Maclennan, N.A. Clark, D.M. Walba	Ferroelectrics, 246 (2000) 21-33
10	"Stabilization of smectic thin films by photopolymerization"	Chu, P., Krüerke, D., and Chien, L.C.	ALCOM Tech Report XI, (2000) 171-175
9	"New chiral discotic triphenylene derivatives exhibiting a cholesteric blue phase and a ferroelectrically switchable columnar mesophase"	G. Heppke, D. Krüerke, C. Löhning, D. Löttsch, D. Moro, M. Müller, H. Sawade	J. Mater. Chem. 10 (2000) 2657-2661
8	Experimentelle Untersuchungen nematischer und cholesterischer Phasen diskotischer Flüssigkristalle	D. Krüerke - Dissertation	Mensch-und-Buch-Verlag, Berlin (1999) ISBN 3-89820-016-7
7	"First Observation of Electromechanical Effects in a Chiral Ferroelectric Columnar Liquid Crystal"	A. Jakli, M. Müller, D. Krüerke, G. Heppke	Liq. Cryst. 24(3) (1998) 467-472
6	"Surface-Imaging of Frozen Blue Phases in a Discotic Liquid Crystal with Atomic Force Microscopy"	A. Hauser, M. Thieme, A. Saupe, G. Heppke, D. Krüerke	J. Mater. Chem., 7(11) (1997) 2223-2229
5	"Storage of laser-induced holographic gratings in discotic liquid crystals"	J. Contzen, G. Heppke, H.-S. Kitzerow, D. Krüerke, H. Schmid	Appl. Phys. B 63 (1996) 605-608
4	"Investigations on electro-optical effects in chiral discotic columnar mesophases"	G. Heppke, D. Krüerke, M. Müller	Ferroelectrics 179 (1996) 203-209
3	"Highly Twisting Enantiomeric Radial Multiyne Dopants For Discotic Liquid-Crystalline Systems"	C.J. Booth, D. Krüerke and G. Heppke	J. Mater. Chem. 6 (1996) 927-934
2	"Chiral Radial Pentaynes Exhibiting Cholesteric Discotic Phases"	M. Langner, K. Praefcke, G. Heppke and D. Krüerke	J. Mater. Chem. 5 (1995) 693-699
1	"First Observation of Selective Reflection and Blue Phases in Chiral Discotic Liquid Crystals"	D. Krüerke, H.-S. Kitzerow and G. Heppke	Ber. Bunsenges. Phys. Chem. 97 (1993) 1371-1375

## Oral presentations

42	"Liquid Crystals – a new method for diagnostic imaging?"	D. Krüerke	Section for natural science, Goetheanum, Dornach, Switzerland, March 26. 2009
41	"Liquid Crystals – a new method for diagnostic imaging?"	D. Krüerke	Research meeting at the Association for cancer research, Arlesheim, Switzerland, Nov. 27. 2008
40	"Ferroelectric Liquid Crystal over Silicon (FLCOS) Microdisplays and Their Applications"	D. Krüerke	Institut for Microtechnology and Nanoscience, Göteborg, Sweden Aug. 30, 2007
39	"New Materials for ferroelectric microdisplays used for phase modulation and amplitude modulation"	D. Krüerke	SID-ME Mid-Europe Fall Meeting, Potsdam, Germany Oct. 9-10, 2006
38	"Real-time Diffractive Video Projector Employing Ferroelectric LCOS SLM"	D. Krüerke	Society for Information Display (SID) Conference, San Francisco, USA, Jun. 2006
37	"Liquid Crystal on Silicon Microdisplays"	D. Krüerke	Institution of Engineering and Technology, Livingston, Scotland, Apr. 5 2006
36	"The B4 phase: layer curvature driven by frustrated intralayer packing"	L.E. Hough , D. Krüerke , C.D. Jones , H.T. Jung , J. Zasadzinski , G. Heppke , J. Rabe , W. Stocker , E. Korblova , D. Walba , N.A. Clark	American Physical Society March Meeting, Baltimore, MD 13-17 March 2006
35	"Reflective Microdisplays and their Applications"	D. Krüerke	Seminar at Manchester Centre for Nonlinear Dynamics, University of Manchester, Feb. 2. 2005
34	"Freeze Fracture and AFM Studies of the Liquid Crystal Dark Conglomerate and B4 Phases"	L.E. Hough , M. Spannuth , H.J. Jung , J. Zasadzinski , D. Krüerke , G. Heppke , David Walba , Noel Clark	American Physical Society March Meeting, Los Angeles, CA 21-25 March 2005

33	"Small Molecules, Complex Structures, the Way Towards Life"	D. Krüerke	Bandol Liquid Crystal Workshop in Honor of Sven Lagerwall at his 70th Birthday, LC Lab Bandol, France May 2004
32	"Liquid Crystal over Silicon (LCOS) Micro-SLMs and Their Applications"	D. Krüerke	Fraunhofer Institute for reliability and microintegration, Germany, Berlin, May 8. 2003
31	"Light Shutters and Electro-optical Storage Devices from Antiferroelectric Liquid Crystals of Bent-shape Molecules"	A. Jákli, L-C. Chien, S. Rauch, D. Krüerke, P. Bault, H. Sawade, G. Heppke, G. Nair, Katalin Fodor-Csorba	Electronic Imaging: Liquid crystal Materials, Devices and Applications, IX, SPIE, Santa Clara (2003)
30	"Liquid Crystal over Silicon Microdisplays (LCOS) and Their Applications"	D. Krüerke, M. Birch, C. Yates, A. Macartney, D. Coates	Electronic Display, Germany, Wiesbaden, September 5-6 2002
29	"Discotic lyomesophases exhibiting ferroelectric properties"	D. Krüerke, H. Sawade, G. Heppke	Conference on discotic liquid crystals, Italy, Triest, November 25-28 2002
28	"Electro-optical switching and storage effects in liquid crystals of bent-shape molecules"	A. Jákli, G. G. Nair, S. Rauch, D. Krüerke, H. Sawade, G. Heppke	International Display Workshop, Japan, Hiroshima, Dec. 4-5 2002
27	„SXGA Resolution FLC Microdisplays“	M. Birch, D. Krüerke, C. Yates, A. Macartney, D. Peden, D. Coates	SID Intl, Boston, New England, May 19- 24 2002
26	"Electro-optical devices from banana-shaped liquid crystals"	A. Jákli, L-C. Chien, D. Krüerke, H. Sawade, G. Heppke	SID Intl, San Jose, California June 3-8 2001
25	"Novel Properties of SmCP and SmCG phases of bent-shape molecules"	A. Jákli, D. Krüerke, H. Sawade, L-C. Chien, G. Heppke	FLC 2001, Washington DC, August 5-10, 2001
24	"The SmCG liquid crystal phase of bent-shape molecules"	A. Jákli, D. Krüerke, H. Sawade, G. Heppke	ICAM, Cancun, Q.R., Mexico 2001
23	"Surface-induced Chirality and new display modes in banana liquid crystals"	A. Jákli, D. Krüerke, G.G. Nair, R. Sun, L-C. Chien	9 <sup>th</sup> International Topical Meeting on Optics of Liquid Crystals, Sorrento, Napoli, Italy, October 1-6, 2001
22	"Polar Switching of Lyomesophases of Disc-Shaped Molecules"	D. Krüerke	Kent State University – Liquid Crystal Institute, Kent Ohio USA 2000
21	"Helical Superstructures in Nonchiral Molecules"	A. Jákli, A. Saupe, Ch. Lischka, W. Weissflog, G. Pelzl, D. Krüerke, N. Bantan, L. Bartolo	SIAM Presentation, USA June 2000
20	"Surface-induced Chirality and new display modes in banana liquid crystals"	A. Jákli, D. Krüerke, G.G. Nair, R. Sun, L.C. Chien, N. Bantan, L.M. Bartolo	ALCOM Symposium Presentation, USA October 2000
19	„SPM Untersuchungen an glasartig erstarrten smektischen Flüssigkristallen“	D. Krüerke	Humboldt-University Berlin, Physics dept. 1999
18	"Polar Switching in Discotic Lyomesophases"	G. Heppke, D. Krüerke, H. Sawade, T. Katz	Ferroelectric Liquid Crystal Conference, Darmstadt 1999
17	"Chirality and Polar Order in Liquid Crystalline Phases of Achiral Molecules"	G. Heppke, D. Krüerke, C. Löhning, D. Moro, S. Rauch	Symposium on Biaxiality of Liquid Crystals – Technischen Universität Berlin Apr. 1998
16	„Chiralität und Ordnung in Flüssigkristallen – Faszinierende Aspekte Supramolekularer Organisation“	G. Heppke, D. Bennemann, D. Krüerke, C. Löhning, D. Löttsch, D. Moro, S. Rauch, H. Sawade	Ortsverband der GDCh – University Kaiserslautern May 1998
15	„Ferroelektrizität in Flüssigkristallen, polarer Phasen bananenförmiger Moleküle“	G. Heppke, D. Krüerke, C. Löhning, D. Moro, S. Rauch	University Stuttgart – Fachbereich Theoretische Physik. Jun. 1998
14	"Surface imaging of supramolecular structures of achiral bent-shaped liquid crystals"	G. Heppke, D. Krüerke, C. Löhning, J. Rabe, W. Stocker	International Liquid Crystal Conference, Strasbourg, France, 1998
13	"Polymorphism and Electro-Optical Properties of Banana Shaped Molecules"	G. Heppke, A. Jakli, D. Krüerke, C. Löhning, D. Löttsch, S. Paus, S. Rauch, N. K. Sharma	European Conference on Liquid Crystals Science and Technology, Zakopane Poland (1997)
12	"Spontaneous Polarisation in Liquid Crystals, Smectic Phases of Bent-Shaped Molecules"	D. Krüerke	Humboldt-University Berlin, Physics dept. 1997

11	"Optical investigation and Surface Imaging on the Banana "Blue-Phase"	P. Collings, G. Heppke, D. Krüerke, C. Löhning, J. Rabe, W. Stocker	International Workshop:"Chirality by achiral molecules" Sfb 335 Technical University Berlin, 1997
10	„Conoscopy on liquid crystals“	D. Krüerke	Doktorandenkolloquium „Anisotrope Fluide“, Technical University Berlin 1996
9	"Surface-Imaging of Frozen Blue Phases in a Discotic Liquid Crystal with Atomic Force Microscopy"	M. Thieme, A. Hauser, A. Saupe, D. Krüerke, G. Heppke	25. Freiburger Arbeitstagung Flüssigkristalle, 1996
8	"Blue phases of discotic cholesteric liquid crystals"	D. Krüerke	Max-Plank Gesellschaft „Flüssigkristalline Systeme“ Martin-Luther Universität Halle (1996)
7	"Atomic Force Microscopy on the Free Surface of Frozen Discotic Cholesteric Blue Phases"	M. Thieme, A. Hauser, A. Saupe, D. Krüerke, G. Heppke	International Liquid Crystal Conference, Kent USA (1996)
6	"Highly Twisting Enantiomeric Radial Multiyne Dopants For Discotic Liquid-Crystalline Systems"	C.J. Booth, D. Krüerke, G. Heppke	Spring meeting of the organic condensed matter division of the Roland Eovotos physical society, Vespem Hungary (1996)
5	"Switchable columnar mesophases"	G. Heppke, D. Krüerke, M. Müller	Ferroelectric Liquid Crystal Conference, Cambridge UK (1995)
4	"Investigation of the helical structure of discotic cholesteric pentayne-nematogenes"	M. Langner, D. Krüerke, K. Praefcke, G. Heppke	23. Freiburger Arbeitstagung Flüssigkristalle (1994)
3	"First Observation of Blue Phases in Discotic Cholesteric Liquid Crystals"	D. Krüerke, B. Sabaschus, H.-S. Kitzerow, G. Heppke	Invited Lecture I-15, European Conference on Liquid Crystals Science and Technology, Flims (1993)
2	"Blue Phases of discotic Liquid Crystals"	D. Krüerke	Kolloquium des Iwan-N.-Stranski Institut der Technischen Universität Berlin (1993)
1	"Chirality in discotic-nematic and discotic columnar mesophases"	H. Bock, D. Krüerke, G. Heppke	Doktorandenkolloquium "Anisotropic Fluids", Technische Universität Berlin (1993)

#### Conference contributions:

39	"Does breathing-regulating speech-therapy improve arterial baroreflex-sensitivity and decreases blood pressure in hypertensive Patients?"	C. Kaufmann, D. Krüerke, M. Frank, A. Falday, D.v. Bonin	Jahrestagung der Schweizerischen Gesellschaft für Kardiologie (SGK), Lausanne, Switzerland, 10 - 12 June (2009)
38	"Antibiotics in pneumonia and beyond. Treatment of 80 patients with pneumonia in an anthroposophical clinic."	V. Munda, D. Krüerke, C. Kaufmann	75. Jahresversammlung der Schweizerischen Gesellschaft für Innere Medizin, Basel, Switzerland, (2007)
37	"The B4 Phase: A twist grain boundary phase driven by intrinsic saddle splay layer curvature"	L. E. Hough, D. Krüerke, C.D. Jones, G. Heppke, H. Jung, J. Zasadzinski, J. Rabe, W. Stocker, E. Körbolova, D. Walba, N.A. Clark	International Liquid Crystal Conference (2006) Keystone, Colorado
36	"Antiferroelectric and Ferroelectric Liquid Crystal Fibers of Bent-core Molecules."	A. Jakli, D. Krüerke, G. Nair	4th SIAM conference on Mathematical aspects of Materials Science, Los Angeles (2004)
35	"Silicon backplane Ferroelectric liquid crystal spatial light modulator for uses within an optical telecommunications environment"	K. Heggarty, B. Fracasso, M.Birch, D.Krüerke	Ferroelectric Liquid Crystal Conference (2003) Dublin, Ireland
34	"Freely Suspended Strands and Filaments of Smectic Phases of Banana-Shaped Molecules"	A.Jákli, G.G. Nair, D. Krüerke	P467, International Liquid Crystal Conference, Edinburgh, Scotland (2002)
33	"The B4 Phase of Bent-Core Molecules: A Chiral-Line Liquid"	D. Krüerke, N.A. Clark, H.T. Yang, J. Zasadzinski, D.R. Link	P705, International Liquid Crystal Conference, Edinburgh, Scotland (2002)
32	"Discotic Lyomesophases – New Material for Electro-optical Applications?"	G. Hauck , G. Heppke, D. Krüerke, H. Sawade	Displays and Vacuum Electronics (2001) Garmisch-Partenkirchen, Germany

31	"Properties of Transferred and Stacked Freely Suspended films"	C. Gude, P. Jägelmalm, D. Krüerke, P. Marczuk, D. Fliegner, G. Heppke	29. Freiburger Arbeitstagung Flüssigkristalle (2000)
30	"Chirality in discotic lyomesophases"	L.-E. Blieth, I. Drevensek, G. Heppke, D. Krüerke, H. Sawade.	29. Freiburger Arbeitstagung Flüssigkristalle (2000)
29	"Properties of Transferred and Stacked Freely Suspended Films"	C. Gude, P. Jägelmalm, D. Krüerke, P. Marczuk, P. Lang, D. Fliegner, G. Heppke	International Liquid Crystal Conference, Sendai Japan (2000)
28	"Chirality in Discotic Lyomesophases"	L. Blieth, I. Drevensek Olenik, G. Heppke, D. Krüerke, H. Sawade	International Liquid Crystal Conference, Sendai Japan (2000)
27	"Optic and Dielectric Studies of Chiral Liquid Crystal Homologues Featuring Smectic C* Sub-phases"	J. Lagerwall, D. Parghi, D. Krüerke, P. Jägelmalm, K. D'have, G. Heppke, S. Lagerwall	International Liquid Crystal Conference, Sendai Japan (2000)
26	"EHD-Instabilities in Discotic Lyomesophases"	G. Hauck, G. Heppke, D. Krüerke, H. Sawade	International Liquid Crystal Conference, Sendai Japan (2000)
25	"Electrically tuneable cholesteric mirror"	D. Krüerke, N. Gough, G. Heppke, S.T. Lagerwall	European Conference on Liquid Crystals Science and Technology, Crete, Greece (1999)
24	"Time-resolved FT-IR Investigations of the Ferroelectric Switching Process of a Columnar Liquid Crystal"	S.V. Shilov, M. Müller, D. Krüerke, H. Skupin, G. Heppke, F. Kremer	European Conference on Liquid Crystals Science and Technology, Crete, Greece (1999)
23	"Time-resolved Investigations of the Ferroelectric Switching Process of a Columnar Liquid Crystal"	S.V. Shilov, M. Müller, D. Krüerke, H. Skupin, G. Heppke, F. Kremer	Ferroelectric Liquid Crystal Conference, Darmstadt (1999)
22	"Ferroelectric Switching of Chiral Discotic Lyomesophases"	H. Sawade, G. Heppke, D. Krüerke, P. Rudquist, S.T. Lagerwall	Ferroelectric Liquid Crystal Conference, Darmstadt (1999)
21	"Effects of Phase Coexistence on the Electro-optic Response in the Antiferroelectric SmC* $\alpha$ Phase in Materials Exhibiting Thresholdless Switching in the Smectic C* Phase"	P. Rudquist, D. Krüerke, J.P.F. Lagerwall, S.T. Lagerwall, N.A. Clark, J.E. Maclennan, D.M. Walba	Ferroelectric Liquid Crystal Conference, Darmstadt (1999)
20	"X-ray measurements on switchable columnar liquid crystals"	G. Bargordo, W. Helfrich, G. Rapp, H. Sawade, M. Müller, D. Krüerke, D. Löttsch, G. Heppke	27. Freiburger Arbeitstagung Flüssigkristalle (1998)
19	"First Investigations of columnar ferroelectric Liquid crystals by means of time-resolved FT-IR spectroscopy"	S. Shilov, F. Kremer, G. Heppke, D. Krüerke, M. Müller	International Liquid Crystal Conference, Strasbourg Frankreich (1998)
18	"Piezoelectricity of Chiral Ferroelectric Columnar Liquid Crystals"	A. Jakli, H. Bock, M. Müller, D. Krüerke, G. Heppke	European Conference on Liquid Crystals Science and Technology, Zakopane Poland (1997)
17	"New discotic Triphenylene derivatives exhibiting a Cholesteric Blue Phase and Ferroelectric Switching in Columnar Mesophases"	G. Heppke, D. Krüerke, C. Löhning, D. Löttsch, M. Müller, H. Sawade	26. Freiburger Arbeitstagung Flüssigkristalle (1997)
16	"Some Properties of Banana Shaped Molecules: Influence of Chiral Doping"	G. Heppke, D. Krüerke, C. Löhning, D. Löttsch, S. Rauch, N.K. Sharma	26. Freiburger Arbeitstagung Flüssigkristalle (1997)
15	"Spontaneous Optical Resolution of Achiral Banana-Shaped Liquid Crystals"	G. Heppke, D. Krüerke, C. Löhning, D. Löttsch, P.J. Collings	Gordon Research Conference on Liquid Crystals, Tilton USA (1997)
14	"Broad-Band Dielectric Spectroscopy on the Molecular Dynamics of Discotic Cholesteric Liquid Crystals"	H. Xu, F. Kremer, D. Krüerke, M. Müller, G. Heppke	International Liquid Crystal Conference, Kent USA (1996)
13	"First Investigations of the Phase Behaviour and Electro-optical Properties of a Homologous Series of Chiral Discotic Dibenzopyrene Derivatives"	G. Heppke, D. Krüerke, D. Löttsch, M. Müller, H. Sawade	International Liquid Crystal Conference, Kent USA (1996)
12	"Blaue Phase diskotischer Moleküle – Beispiel Supramolekularer Organisation"	D. Krüerke, G. Heppke	Tag der Chemie in Berlin und Potsdam (1995)
11	"Ferroelektrisch schaltende kolumnare Phasen - Eine Berliner Erfindung"	M. Müller, D. Krüerke, H. Bock, G. Heppke	Tag der Chemie in Berlin und Potsdam (1995)
10	"Investigations on Helix-Inversion in Cholesteric Phases"	G. Heppke, D. Krüerke, M. Müller	European Conference on Liquid Crystals Science and Technology, Bovec Slovenien (1995)
9	"Zur Randaufbindung diskotisch cholesterischer Pentain-Systeme"	G. Heppke, D. Krüerke, M. Müller	24. Freiburger Arbeitstagung Flüssigkristalle (1995)

8	"Diskotisch nematische Glaser"	J. Contzen, G. Heppke, D. Krüerke.	Tagung der Deutschen Bunsengesellschaft, Berlin (1994)
7	"Helical Structure of Discotic Cholesteric Phases of Chiral Pentaynes"	M. Langner, D. Krüerke, K. Praefcke, G. Heppke	International Liquid Crystal Conference, Budapest Hungary (1994)
6	"Recent Results on Storage Effects in Glass Forming Low Molar Mass Liquid Crystals"	J. Contzen, G. Heppke, H.-S. Kitzerow, D. Krüerke, H. Schmid.	International Conference on Liquid Crystal Polymers, Beijing China (1994)
5	"Untersuchung der Helixstruktur der durch chirale Dotierstoffe induzierten diskotisch cholesterischen Phase"	G. Heppke, H.-S. Kitzerow, D. Krüerke, B. Sabaschus	Tagung der Deutschen Bunsengesellschaft, Leipzig (1993)
4	"Electrostriction of Blue Phases BPI and BPII in Discotic Liquid Crystals"	J. Contzen, G. Heppke, D. Krüerke.	Gordon Research Conference on Liquid Crystals, Wolfboro USA (1993)
3	"Erste Blaue Phase diskotischer Flüssigkristalle"	G. Heppke, H.-S. Kitzerow, D. Krüerke, B. Sabaschus	Tag der Chemie in Berlin (1993)
2	"Investigations on a Discotic Cholesteric Phase."	G. Heppke, D. Krüerke, B. Sabaschus"	14th International Liquid Crystal Conference, Pisa Italy (1992)
1	"Influence of an Electron Acceptor on the Elastic Properties of Discotic Nematic Phases"	G. Heppke, D. Krüerke, B. Sabaschus	Gordon Research Conference on Liquid Crystals, Wolfboro USA (1991)

## Patents

1	"Electro-optical devices from banana-shaped liquid crystals"	A. Jákl, D. Krüerke, L-C. Chien, H. Sawade, G. Heppke	US 2004/0033321 A1
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## Co-supervised diploma theses

"Untersuchungen an diskotischen Flüssigkristallen im Glaszustand"	Jörg Contzen (1994)
"Chiralitätsinduzierte Eigenschaften diskotischer Flüssigkristalle"	Mario Müller (1995)
"Untersuchung helikaler Strukturen achiraler bananenformiger Flüssigkristalle"	Carola Löhning (1998)
"Struktur und Chiralitätseffekte in lyotrop-flüssigkristallinen Phasen eines chiralen 1,2-Diols"	Johanna R. Bruckner (2010)