

## CURRICULUM VITAE

### Antal I. Jákli

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#### Professional Preparation

Lóránd Eötvös University (Budapest)	Physics	M.Sc.	1983
Lóránd Eötvös University (Budapest)	Physics	Ph.D.	1986
Institute for Solid State Physics, (Budapest)	Physics	Habilitation	1992
Hungarian Academy of Sciences (Budapest)	Physics	D.Sc.	2000

#### Appointments

2018-	Professor, Department of Physics, Kent State University, USA
2012 - 2017	Professor, Chemical Physics, Kent State University, USA
2007 – 2012	Associate Professor, Chemical Physics, Kent State University, USA
2004 - 2007	Assistant Professor, Chemical Physics, Kent State University, USA
1999 - 2004	Senior Research Fellow, Liquid Crystal Institute, Kent State University
1995 - 1999	Senior Research Fellow, Research Institute for Solid State Physics, Budapest, Hungary
1993 - 1995	Senior Research Fellow, Max Planck Research Group, Halle/S, Germany
1993 – 1995	Senior Research Fellow, Research Institute for Solid State Physics, Budapest, Hungary
1989 - 1992	Research Associate, Liquid Crystal Institute, Kent State University, USA
1986 - 1989	Research Associate, Research Institute for Solid State Physics, Budapest, Hungary

#### Teaching Experience

1. 2018: Introduction to Materials Physics, 3 credit hour undergraduate course at Department of Physics, Kent State University
2. 2015- : “Liquid Crystal sciences: Physical Properties”, 3 credit hour graduate course at Chemical Physics Interdisciplinary Program, Kent State University
3. 2010- 2014: “Fundamentals of Liquid Crystal Sciences”, 4 credit hour graduate course at Chemical Physics Interdisciplinary Program, Kent State University
4. 2003-2008; 2016-: “*Structured Fluids*”, 3 credit hours course, Chemical Physics Interdisciplinary Program, Kent State University
5. 2001-2009: “*Physical Properties of Liquid Crystals*”, 3 credit hours graduate course, Chemical Physics Interdisciplinary Program, Kent State University
6. 2001: “*Liquid Crystal Physics*”, 3 credit hours graduate course, Department of Physics, Kent State University.
7. 1997-1999: 4 credit hours, *Basic Physical Laboratory Practices* for 1<sup>st</sup> and 2<sup>nd</sup> grade physics students, instructor and co-author of the lab notes; Department of Experimental Physics of the Technical University in Budapest..

8. 1995-1996: 2 credit hours, “*Basics of Soft Condensed Matter Physics*” lectures, graduate course, Department of Physics of the Technical University, Budapest

### **List of dissertations and theses directed**

1. Stefan Markscheffel (PhD, Martin Luther University, Halle, Germany, co-advised with A. Saupe); 1996: - “Electric field effects in chiral smectic C liquid crystals”.
2. Andrea Király (M.S., Eötvös University, Budapest); 1996: - “Rheological Properties of columnar liquid crystals”.
3. Toralf Scharf (PhD, Martin Luther University, Halle, Germany, co-advised with A. Saupe); 1997 - “Chiral smectic C materials under periodic shear flows”.
4. Yaun Ming Huang (PhD, Chemical Physics Interdisciplinary Program, Kent State University); 2004 - ”Electro-optical and dielectric properties of ferroelectric liquid crystals formed by banana-shaped molecules”.
5. Strahinja Stojadinovic (PhD, Department of Physics, Kent State University, co-advised with Samuel Sprunt); 2004: - “Light Scattering Studies of Dynamics of Bent-core Liquid Crystals”.
6. Guangxun Liao (PhD, Chemical Physics Interdisciplinary Program, Kent State University); 2005: “Mechanical and electro-optical properties of unconventional liquid crystal systems”.
7. Sehwan Yu (M.S., Department of Physics, Korea University, co-advised with Sun Tea Shin); 2006: - “Electric field-induced biaxiality in bent-core liquid crystal displays”.
8. Thomas Palermo (M.S., Chemical Physics Interdisciplinary Program, Kent State University); 2007: – “Optical Properties Of Liquid Crystal-Based Pigments For Smart Paints
9. Chris Bailey (PhD, Chemical Physics Interdisciplinary Program, Kent State University); 2008: – “Structure and rheology of some bent-core liquid crystals”.
10. John Harden, (PhD, Chemical Physics Interdisciplinary Program, Kent State University); 2009: - “Electro-Mechanical Couplings in Liquid Crystals”.
11. Deirdre Manion-Fischer (B.Sc., Honors College, Kent State University, co-advised by Phil Westermann); 2010: - “Synthesis and partial characterization of novel lyothermotropic liquid crystalline phospholipids”.
12. Stefanie Taushanoff (PhD, Chemical Physics Interdisciplinary Program, Kent State University); 2011: - “Development And Characterization Of Blue Phases Made From Bent-Core Liquid Crystals”.
13. Madhabi Majumdar (PhD, Department of Physics, Kent State University, co-advised with Samuel Sprunt); 2011- “Elastic Constants, Viscosities, And Fluctuation Modes Of Certain Bent-Core Nematic Liquid Crystals Studied By Dynamic Light Scattering And Magnetic Field Induced Orientational Distortion”.
14. Jason Morvan (MS., Chemical Physics Interdisciplinary Program, Kent State University, Co-advised with John West.); 2012: - “Piezoelectric properties of electrospun PLA/BaTiO<sub>3</sub> fiber mats”.
15. Wilder Iglesias (PhD, Chemical Physics Interdisciplinary Program, Kent State University, co-advised with E. Mann, Department of Physics); 2012: - “Surface Interaction Of Bent-

Core Liquid Crystals - Slipping On A Banana Peel”.

16. Zoltán Karaszi (M.S., Department of Computer Sciences of Kent State University; co-advised with Feodor Dragan); 2013: - “Advanced neural network clustering techniques for liquid crystal texture classification”.
17. Nicholas Diorio (PhD, Chemical Physics Interdisciplinary Program, Kent State University); 2013: - “From Synthesis To Piezoelectric Studies Of Central-Ring-Substituted Bent-Core Liquid Crystals And Their Composites”.
18. Cuiyu Zhang, (Chemical Physics, advisor) “Nanostructures Of Bent-Core Liquid Crystals-Transmission Electron Microscopy, X-Ray And Polarizing Microscopy Studies”, Defended on March 17, 2015
19. Piotr Popov,\_(Department of Physics, Kent State University, co-advised with E. Mann) May 12, 2015, “Liquid crystal Interfaces: Experiments, simulations and biosensors”
20. Oliver Kress (Chemical Physics, Kent State University), “Mechanical Tension and Electrical Conductivity of Liquid Crystal Filaments”, June 25, 2015
21. Muhammad Salili, (Chemical Physics, Kent State University), “Dynamic and magneto-optic properties of bent-core liquid crystals”, September 25, 2016,

### **Synergistic Activities**

- Developed two new graduate courses for the Chemical Physics Interdisciplinary Program at Kent State University and incorporated them into a textbook “One and two dimensional fluids” co-authored with A. Saupe (Taylor&Francis, 2006).
- In the last five years financially supported 36 students, and provided opportunity for summer research to 16 undergraduate (supported by REU and other grants) and 6 high school students.
- Provided international research experiences in several countries in Europe and in South Korea for 32 US undergraduate and graduate students in frame of NSF IRES program, and advised 4 international students in frame of International Exchange Programs.
- Associate Editor of Phys. Rev. E (2009-present);
- Chair of the 13<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Niagara Falls, 2011.
- Member of the Scientific Committee of the 14<sup>th</sup> International Conference on Ferroelectric Liquid Crystals (Magdeburg, Germany, September 1-5, 2013); 12th European Conference on Liquid Crystals (ECLC13) (Rhodes, Greece, September 22-27, 2013)
- Local Organizing committee of 15th Optics of Liquid Crystal Conference (OLC 2013), (Ala Moana Hotel, Honolulu, Hawaii, September 28-October 4, 2013)
- NSF IGERT Video and Poster Competition Judge (2013)
- Co-chair of Advances in Liquid Crystal Sciences – at the interface of Physics and Mathematics, Kent, September 12-13, 2014.
- Co-Chair: Chirality at the nanoscale (C@N), June 4-5, Kent, OH, 2015
- Outside Member of the Hungarian Academy of Sciences: 2009-present
- Member of Organizing Committee and Tutorial Chair of the 26<sup>th</sup> International Liquid Crystal Conference, Kent, OH, July 30-August 5, 2016

- Member of organizing committee of IMA for Liquid Crystals, Metamaterials, Transformation Optics, Photonic Crystals, and Solar Cells, Minneapolis, February 27-March 2, 2018
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#### **Sponsored Postgraduate Scholars:**

Dr. Ruipeng Sun, Liquid Crystal Institute, Kent State University

Dr. Alberto Olivares, Liquid Crystal Institute, Kent State University

Dr. Geetha Nair, Liquid Crystal Institute, Kent State University

Dr. Martin Chambers, Department of Physics and Liquid Crystal Institute, Kent State University

Dr. John Harden, Department of Physics and Liquid Crystal Institute, Kent State University

Dr. Nicholas Diorio, Liquid Crystal Institute, Kent State University

Dr. Mirosław Saalmonczyk, Department of Physics and Liquid Crystal Institute, Kent State University

#### **Earned Grants and Awards**

1. Young Scientist awards of the Central Research Institute of Physics, Hungary (1986, 1989)
2. Outstanding Research Associate, Kent State University (1992)
3. Bólyai Young Researchers Scholar (1998-1999), Hungarian Academy of Sciences
4. Hungarian National Research Grants: OTKA T 07443, T 23102 (1995-1998, 1998-2001) and OTKA-K-61075 (2006-2010)
5. European INCO Copernicus Grant No. ERBIC15CT960744 (1997-2000)
6. Volkswagen Stiftung with Iwan Stransky Institute, Berlin (1997-1999)
7. Research Challenge Grants of Ohio Board of Regents (2001, 2003, 2006, 2011)
8. Sponsored Research Grant, CoAdna Photonics, Inc. (2001-2002)
9. NSF - Hungary Travel Grants (1999, 2003)
10. NSF REU (2003 - 2012)
11. Department of Education (2003)
12. Sponsored Research Grant, Samsung Electromechanics (2005)
13. NSF DMS-0456221, FRG (2005-2009)
14. Sponsored Research Grant, COMEX-PIC (2005)
15. NSF DMR 0606160 (2006-2010)
16. Sponsored Research Grant, Samsung Electronics (2007-2008)
17. Sponsored Research Grant, ONR (2007-2009)
18. Library Research Collection Award, Kent State University (2007)
19. NSF-IRES 2007-2011
20. Sponsored Research Grant, Vistakon-J&J (2008)
21. NSF DMR, "Ultrathin Films" (2009-2012)
22. Institute for Complex Adaptive Matter-ICAM Track II Postdoctoral Fellowship (2008, 2009)
23. NSF-DMR-0907055 (2010-2013)

24. Kent Displays: Electromechanical driving of cholesteric liquid crystals (2010)
25. Luckhurst-Samulski Prize 2010 (Taylor & Francis)
26. ICAM-Grant: 13<sup>th</sup> International Conference on Ferroelectric Liquid Crystals (2011)
27. NSF ROA Grant (2011)
28. Outstanding Research Scholar of Kent State University (2012)
29. ICAM-Postdoctoral Fellowship Award with N.A. Clark (2013)
30. Ohio Third Frontier Technology Validation Award (2013)
31. NSF OISE: Responsive Fibers (RF-IRES) (2013-2016)
32. NSF DMR, “Connecting Short Range Order to Macroscopic Properties in Complex Structured Fluids” (2013-2017)
33. Sponsored Research Grant: LG-Display (2013-2015)
34. NSF I-Corps, LC Biosensors, (2014)
35. NSF DMR, Sensing, imaging, tuning and creating nanomaterial chirality using liquid crystal phases “ (2015-2018)
36. NSF I-Corps - Liquid Crystal Microscopy (2015)
37. Promerus- Sponsored Research (2016)
38. Valeo-Sponsored Research (2017, 2018)

### **Invited Talks at Conferences**

1. 7<sup>th</sup> International Symposium on Liquid Crystal Photonics (SLCP-2018), Nanjing, China, April 13-15, 2018
2. IMA for Liquid Crystals, Metamaterials, Transformation Optics, Photonic Crystals, and Solar Cells, Minneapolis, February 27-March 2, 2018
3. 16<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Hongkong, December 3-8, 2017
4. 14<sup>th</sup> European Liquid Crystal Conference, Moscow, June 25-30, 2017
5. Session Chair, Gordon Conference for Liquid Crystals, June 18-22, 2017, Biddeford, Maine, USA
6. 1<sup>st</sup> Workshop on Twist-bend nematic liquid crystals, Southampton, April 7-8, 2016
7. SPIE 2016, San Francisco, February 11, 2016
8. Toyota Riken International Workshop on Bent-Core liquid Crystals, Tokyo, Japan, November 16-17, 2015,
9. Advanced Liquid Crystal Technology Workshop, Nanjing August 7-8, 2015
10. 15<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Prague, Czech Republic, June 28-July 3, 2015
11. II. Workshop Paran se de Fluidos Complexos, Maring , Paran , Brazil, March 10, 2015
12. SPIE Optics and Photonics, San Diego, 17-18. August 2014
13. 12<sup>th</sup> European Conference on Liquid Crystals, ECLC-2013, September 22-27, 2013 Rhodes, Greece (<http://eclc2013.upatras.gr/>)
14. 14<sup>th</sup> International Conference on Ferroelectric Liquid Crystals - Advances in Polar Soft Matter, September 1-6, Magdeburg (<http://www-e.uni-magdeburg.de/flcc2013/Welcome.html>)

15. 24<sup>th</sup> International Liquid Crystal Conference, August 19-24, 2012, Mainz, Germany
16. Frontiers of Soft Matter Symposium, April 16-19, 2012, Boulder, Co
17. Department of Physics, Wooster College, Wooster, OH January 19, 2012
18. 2<sup>nd</sup> NSF-OTKA Symposium on Complex Fluids, Sopron, Hungary, July 11-12, 2011
19. SPIE-Optics and Photonics, San Diego, August 1-5 2010.
20. 23<sup>rd</sup> International Liquid Crystal Conference, Krakow, July 11-16. 2010
21. SIAM: Dynamic Systems and Partial Differential Equations (DSPDE), Barcelona, June 3. 2010
22. Tutorial at the International Liquid Crystal Conference, Zaragoza, Spain, August 31-September 4. 2009
23. Gordon Research Conferences on Liquid Crystals, Colby-Sawyer College 6/14/09 – 6/19/09
24. 3<sup>rd</sup> Korean-Hungarian International Joint Workshop: Frontier Topology and Design Concept for Neo-Mesomorphism, Gumi City, South Korea, (4-7 July, 2008) - plenary
25. 36<sup>th</sup> Arbeitstagung Flüssigcrystalle, Magdeburg, Germany (March 2008)
26. SPIE 2008, San Jose, CA (January, 2008)
27. 11<sup>th</sup> Ferroelectric Liquid Crystal Conference, Sapporo, Japan September (2007)
28. 3<sup>rd</sup> Workshop on Bent-core Liquid Crystals, Tokyo, Japan, September (2007)
29. XV International Materials Research Congress 2006, Cancun, Mexico, August (2006)
30. First USM LCLR – Japan Liquid Crystal Colloquium, University Sains Malaysia, Penang, Malaysia (2005)
31. 7<sup>th</sup> Ibero-American Workshop on Complex Fluids and their Applications, Quintana Roo, Mexico (2005)
32. 10<sup>th</sup> Conference on Ferroelectric Liquid Crystals, Stare Jablonki, Poland (2005)
33. Photons and Phonons in Solids, International Symposium, Puebla, Mexico (2005)
34. 4<sup>th</sup> SIAM Conference on Mathematical Aspects of Materials Science, Los Angeles CA (2004)
35. 9<sup>th</sup> International Conference on Optics of Liquid Crystals, Modane, France (2003)
36. 3<sup>rd</sup> International Meeting on Information Display (IMID'03), Daegu, Korea (2003)
37. Electronic Imaging: Liquid Crystal Materials, Devices and Applications, IX, SPIE, Santa Clara, CA, USA (2003)
38. International Display Workshops, Hiroshima, Japan (2002)
39. Ferroelectric Liquid Crystal Workshop: Banana Liquid Crystals: Chirality and Polarity, Boulder, CO, USA (2002)
40. 8<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Washington DC, USA (2001)
41. XXIV Encontro Nacional De Física Da Matéria Condensada, Sao Lorenzo, Brazil (2001)
42. 8<sup>th</sup> International Meeting on Optics of Liquid Crystals, Sorrento, Italy (2001)
43. 3<sup>rd</sup> SIAM Conference on Mathematical Aspects of Materials Science, Philadelphia, PA, USA (2000)
44. 7<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Darmstadt, Germany (1999)

45. 4th National Indian Seminar on Liquid Crystals, Patiala, India (1998)
46. 1st Small Angle Scattering Workshop, Matrahaza, Hungary (1998)
47. ALCOM Workshop on "Banana-shaped liquid crystals", Kent, OH, USA (1998)
48. 1<sup>st</sup> Workshop on Banana-shaped Liquid Crystals, Berlin, Germany (1997)
49. VII ALCOM Symposium on "Dynamic and Defects of Liquid Crystals", Cuyahoga Falls, OH, USA (1995)
50. 5<sup>th</sup> European Conference of Liquid Crystals, Bovec, Slovenia (1995)

### **Colloquia and Seminars (2001 – present)**

1. Department of Theoretical Physics, Lorand Eotvos University, Budapest, April 6, 2016
2. Waterloo Institute of Nanotechnology, Waterloo, June 23, 2015
3. Department of Physics, Case Western Reserve University, Cleveland, OH October 28, 2013
4. Wigner Research Centre, Budapest, August 28, 2013
5. Department of Physics, Wooster College, Wooster, OH, January 18, 2012
6. Graduate School of Convergence Science and Technology Seoul National University in Suwon-si, Korea; April 28, 2011
7. Samsung Electronics, Suwon-si, Korea April 27, 2011
8. Polymer Institute, University of Akron, April 5, 2011
9. Niels Bohr Institute, June 9<sup>th</sup>. 2010 – "Liquid Crystals in Biology"
10. University of Colorado, Boulder April 28<sup>th</sup> 2010
11. University of Akron, Akron, OH, USA, August 2008.
12. Research Institute for Solid State Physics and Optics of the Hungarian Academy of Sciences, Budapest, June 2008
13. Research Center of Chemistry of the Hungarian Academy of Sciences, Budapest, March 2008
14. Tutorial on Bent-core Liquid crystals: Workshop on Ferroelectric Phenomena in Soft matters, Kent, OH, USA (2007)
15. Materials Research Society, Kent State Chapter seminar, October 2006
16. Universidade Nova De Lisboa, Lisbon, Portugal (2006)
17. Institute for Chemistry and Technology of Organic Materials, Graz University of Technology, Graz, Austria (2006)
18. Ferroelectric Liquid Crystals (10 hours seminar series), National Cheng-Kung University, Tainan, Taiwan (2005)
19. Allegheny College, Department of Physics, Meadville, PA, USA (2005)
20. Research Institute for Solid State Physics and Optics, Budapest, Hungary (2004)
21. Pusan University, Pusan, Korea (2003)
22. Wayne State University, Detroit, MI, USA (2003)
23. Tokyo Institute of Technology, Tokyo, Japan (2002)
24. Tokyo University of Science and Technology, Yamaguchi, Japan (2002)
25. Pennsylvania State University, University Park, PA, USA (2001)
26. Research Institute for Solid State Physics and Optics, Budapest, Hungary (2001)

27. University of Sao Paulo, Brazil (2001)

### **Other professional Activities**

1. Over 200 oral and poster presentations at international scientific meetings
2. Regular reviewer of over a dozen of Physics and material Sciences journals
3. Co-founder and co-editor of electronic document server: *Electronic Liquid Crystal Communications* (e-lc.org)
4. Panel Reviewer for European Research Council
5. International Advisory Board Member of the 9<sup>th</sup> International Conference on Ferroelectric Liquid Crystal Conference, Sapporo, Japan, 2007;
6. Co-Chair of Workshop on Ferroelectric Phenomena on Soft matter, Kent, June 18-29. 2007;
7. Chair of Liquid Crystal Day 2007, Kent, October 12. 2007
8. Chair of 1st NSF-OTKA Symposium for Complex Fluids, July 8-10, Eger, Hungary
9. Organizing Committee member of the 5th International Liquid Crystal Elastomer Conference, September 24-26, 2009, Kent, OH, USA
10. Chair of the 13<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, August 28-September 2, Niagara Falls
11. Co-Chair of Advances in Liquid Crystal Science, Kent, September 12-13. 2014
12. Co-Chair of Chirality at Nanoscale, Kent, June 4-5. 2015
13. Associate Editor of Physical Review E April 1. 2009 – up to date

### **Publications**

#### **Books and book chapters**

1. A. Jákli, R.P. Lemieux, C. Rosenblatt, T. Hegmann (editors), Proceedings of the thirteenth International Conference of Ferroelectric Liquid Crystals (FLC 2011), Ferroelectrics, Volume 431 (2012)
2. A. Jákli, N. Éber, “Electromechanical effects”, pp. 751-772, Volume 8: Applications of Liquid Crystals, “Handbook of Liquid Crystals”, 2<sup>nd</sup> Edition, Ed: J.W. Goodby, P.J. Collings, T. Kato, C. Tschierske, H.F. Gleeson, P. Raynes, Wiley-VCH, Weinheim (2014)
3. A. Jákli, J. Harden and N. Éber, “Flexoelectricity of Bent-Core Molecules”, Chapter 3 (pp. 61-100) in book “Flexoelectricity of liquid crystals”, Editors: A. Buka, N. Eber, Imperial College Press (2014)
4. W. Iglesias and A. Jákli, “Applications Of Bent-Core Mesogens”, pp. 799-818, Volume 8: Applications of Liquid Crystals, “Handbook of Liquid Crystals”, 2<sup>nd</sup> Edition, Ed: J.W. Goodby, P.J. Collings, T. Kato, C. Tschierske, H.F. Gleeson, P. Raynes, Wiley-VCH, Weinheim (2014)
5. C. Zhang, N. Diorio and A. Jákli, “Electrical, magnetic and mechanical fields, and bent-core liquid crystals”, pp. 715-742, Volume 4: Smectic and Columnar Liquid Crystals, “Handbook of Liquid Crystals”, 2<sup>nd</sup> Edition, Ed: J.W. Goodby, P.J.



- Collings, T. Kato, C. Tschierske, H.F. Gleeson, P. Raynes, Wiley-VCH, Weinheim (2014)
6. A. Jákli, A. Saupe, *One and Two Dimensional Fluids – Physical Properties of Smectic Lamellar and Columnar Liquid Crystals*, Taylor and Francis publishers, Boca Raton, 2006, ISBN 0 7503 0969 5
  7. A. Jákli, C. Bailey, J. Harden, "Physical properties of banana liquid crystals", Chapter 2, in *Thermotropic liquid crystals: Recent Advances*, A. Ramamoorthy, editor, Springer Publishers, (2007)
  8. A. Jákli, "Electrically induced vibrations and flows in Ferroelectric Liquid Crystals" chapter, *Dynamics and Defects in Liquid Crystals*, P. Cladis and P. Palffy-Muhoray, editors, Gordon & Breach Publishers, (1998)
  9. A. Jákli, K. Fodor-Csorba, A. Vajda, "Liquid crystal-gel dispersions prepared in the isotropic phase", Chapter 6, *Liquid Crystals in Complex Geometries Formed by Polymer and Porous Networks*, G.P. Crawford and S. Zumer, editors, Taylor & Publishers, (1995)
  10. A. Jákli, N. Éber, "Piezoelectric effects in liquid crystals", pp. 235-256 in, *Modern Trends in Physics of Liquid Crystals*, Á. Buka, editor, World Scientific Publishers, Singapore (1993)

### Refereed Journals

1. I. Jánossy, A. Jákli, J. Hajtó: "Photodarkening and laser induced anisotropy in calcogenide amorphous semiconductors" *Solid. State. Comm.* **51**, No.10 (1984)
2. A. Jákli, L. Bata, A. Buka, N. Éber, I. Jánossy: "New electromechanical effect in chiral smectic C\* liquid crystals", *J. Phys. Lett. (Paris)* **46**, L-759-761 (1985)
3. A. Jákli, L. Bata, A. Buka, N. Éber, "Linear electromechanical effect in SmC\* liquid crystals", *Ferroelectrics* **69**, 153 (1986)
4. N. Éber, L. Bata, A. Jákli, "Continuum theory of uniformly layered SmC\* in an electromagnetic field", *Mol. Cryst. Liq. Cryst.* **142**, 15 (1987)
5. L. Bata, Á. Buka, N. Éber, A. Jákli, K. Pintér, J. Szabon, A. Vajda, "Properties of homologous series of ferroelectric liquid crystals", *Mol. Cryst. Liq. Cryst.* **151**, 47 (1987)
6. A. Jákli, L. Bata, "Investigations of switching processes in SmC\* liquid crystal samples without and with crossed polarizers", *Mol. Cryst. Liq. Cryst.* **151**, 193 (1987)
7. A. Jákli, I. Jánossy, L. Bata, Á. Buka, "A special shear method of alignment for smectic liquid crystals", *Cryst. Res. Technol.* **23**, No.7, 949 (1988)
8. A. Jákli, L. Bata, N. Éber, "Textures of planar oriented ferroelectric liquid crystals in alternating electric fields", *Ferroelectrics* **85**, 187 (1988)

9. A. Jákli, I. Jánossy, L. Bata, "Interpretation of the instabilities under AC electric fields in thick samples of SmC\* liquid crystals", *Ferroelectrics*, **88**, 73 (1988)
10. A. Jákli, R. Bartolino, N. Scaramuzza, "Undulation instability of planar SmC\* liquid crystals in the presence of dilation strains", *J. Physique (Paris)* **50**, 1313 (1989)
11. A. Jákli, N.Éber, L. Bata, "Electromechanical effect in surface stabilized and in unwound SmC\* liquid crystals", *Liq. Cryst.*, **5**, No.4. 1121 (1989)
12. A. Jákli, L. Bata, L.A. Beresnev, "Switching behaviour of a thermocromic ferroelectric liquid crystal with high spontaneous polarization", *Mol. Cryst. Liq. Cryst.*, **177**, 43 (1989)
13. A. Jákli, R. Bartolino, N. Scaramuzza, R. Barberi, "Some mechanical treatments for alignments of smectic liquid crystals", *Mol. Cryst. Liq. Cryst.* **178**, 21 (1990)
14. A. Jákli, L. Bata, "Resonances in linear electromechanical responses of SmC\* liquid crystal samples", *Ferroelectrics* **103**, 35 (1990)
15. A. Jákli, L. Bata, "Nonlinear electromechanical responses of SmC\* liquid crystals", *Liq. Cryst.* **7**, No.6, 105 (1990)
16. L. Bata, A. Jákli, J. Szabon, A. Vajda, J.Lindau, "Reliable methods for alignment of LC Polymers", *Mol. Cryst. Liq. Cryst.* **193**, 205 (1990)
17. A. Jákli, N. Éber, L. Bata, "Influence of zig-zag defects on frequency dependence of linear electromechanical responses of ferroelectric liquid crystals", *Ferroelectrics* **113**, 305 (1991)
18. A. Jákli, L.Bata, "Mechano-electrical effect on planar SmC\* liquid crystals", *Mol. Cryst. Liq. Cryst.* 201, **115** (1991)
19. A. Jákli, D-R. Kim, M.R. Kuzma, A. Saupe, "Rotational viscosities of polymer solutions in a low molecular weight nematic liquid crystal", *Mol. Cryst. Liq. Cryst.* **198**, 331 (1991)
20. A. Jákli, A. Saupe, "Linear electromechanical effect in SmC\* polymer liquid crystals", *Liq. Cryst.* **9**, No.4, 519 (1991)
21. A. Jákli, P. Palffy-Muhoray, "Observations of non-steady Poiseuille flow of the liquid crystal 8CB", *Mol. Cryst. Liq. Cryst.* **206**, 37 (1991)
22. A. Jákli, D.R. Kim, L.C. Chien, A. Saupe, "Effect of a polymer network on the alignment and the rotational viscosity of a nematic liquid crystal", *J. Appl. Phys.* **72**(7), 3161 (1992)
23. A. Jákli and A. Saupe, "Spontaneous transition from chevron to striped texture of a planar smectic C\* liquid crystal", *Physical Review A* **45**, No.8, 5674-5679 (1992)
24. A. Jákli and A. Saupe, "Electro-optic effects in smectic A phase", *Mol. Cryst, Liq. Cryst.* **222**, 101, (1992)
25. A. Jákli and A. Saupe, "A method to obtain uniform bookshelf texture in smectic C\* liquid crystals", *Applied Physics Letters* **60**, No. 21, 2622 (1992)

26. A. Jákli, N. Éber, L. Bata, "Electromechanical effects in SmC\* polymeric liquid crystals", *Polymers for Advanced Technologies* **3**, No.5, 269 (1992)
27. A. Jákli and A. Saupe, "Uniform bookshelf textures of smectic C\* liquid crystals", *SID Intl. Digest Tech. Papers XXIII*, 413-417 (1992)
28. A. Jákli, A. Saupe, "The role of Goldstone mode and electroclinic effects in the electromechanical responses of SmC\* liquid crystals", *Mol. Cryst. Liq. Cryst.* **237**, 389-398 (1993)
29. L-C. Chien, I.G. Shenouda, A. Saupe and A. Jákli, "Side chain liquid crystalline polysiloxanes containing a cyanohydrin chiral center", *Liq. Cryst.* **15**, No.4, 497 (1993)
30. A. Jákli, L. Bata, K. Fodor-Csorba, L. Rosta, L. Noirez, "Structure of polymer networks dispersed in liquid crystals: small angle neutron scattering study", *Liq. Cryst.* **17** (2), 227 (1994)
31. I. Jánossy, A. Jákli, "Azimuthal reorientation of homeotropic nematic films", *Mol. Cryst. Liq. Cryst.* **251**, 255 (1994)
32. A. Jákli, "Structure and optical properties of liquid crystal dispersed polymer nematic films", *Mol. Cryst. Liq. Cryst.*, **251**, 289 (1994)
33. A. Jákli, A. Saupe, "Electrically induced uniform planar alignment of SC\* liquid crystals on homeotropically treated plates", *Appl. Phys. Lett.* **65** (22), 2777 (1994)
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