

CURRICULUM VITAE



A. D. L. Chandani Perera, Ph.D.

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Hirsch Index - 18, i10 index - 22, Citations – 2742 (as at 02/2017)

PROFESSIONAL COMPETENCE

EDUCATION

Undergraduate & Graduate

- 1987-1990 Ph. D. in Chemistry – Tokyo Institute of Technology, Japan - 1990
Research Advisor: Prof. A. Fukuda
Thesis Title: Antiferroelectric Chiral Smectic Liquid Crystals
- 1985-1987 M. Sc. in Chemistry – Tokyo Institute of Technology, Japan - 1987
Research Advisor - Prof. S. Maeda
Thesis Title: Study of Molecular Orientational Order in n-CB Liquid Crystals by Polarized Fluorescence
- 1982-1983 UNESCO Postgraduate Diploma in Chemistry and Chemical Engineering
Tokyo Institute of Technology, Japan - 1983
Thesis Advisor - Prof. S. Maeda
Thesis Title: Study of Molecular Orientational Order in 5CB Liquid Crystal by Resonance Raman Spectroscopy
- 1977-1981 B.Sc. Chemistry (Special), University of Peradeniya, Peradeniya, Sri Lanka.
Chemistry major with Pure Mathematics as the subsidiary

POSTDOCTORAL

Visiting Scientist/Research Professor appointments at:

- Department of Electronic & Electrical Engineering, Trinity College, University of Dublin, Ireland:
July 2016 – August 2016, April 2015 – October 2015, June 2010 – October 2010, June 2009 – September 2009, April 2006 – June 2006, October 2003 – May 2005

- Darmstadt University of Technology, Germany (October 2002 –January 2003)
- Department of Organic & Polymeric Materials, Tokyo Institute of Technology, Japan (April 1997 – April 1987)
- University of Colorado, Boulder, USA (October 1994 – December 1994)

ACADEMIC APPOINTMENTS

CURRENT APPOINTMENT

Professor of Physical Chemistry (Chair/Physical Chemistry), Department of Chemistry, Faculty of Science, University of Peradeniya

PREVIOUS APPOINTMENTS

DEPARTMENT OF CHEMISTRY, UNIVERSITY OF PERADENIYA

Associate Professor	2003 - 2012
Senior Lecturer I	1997 - 2003
Senior Lecturer II	1990 - 1997
Assistant Lecturer	1981 - 1982

SCHOLASTIC AND ACADEMIC AWARDS

- | | | |
|--|---|------|
| • Tejima Kinen Award | Tokyo Institute of Technology, Japan | 1990 |
| • Outstanding Paper Award | The 9 th International Display Research Conference, Japan Display'89 | 1989 |
| • Young Scientist Award | TWAS/NAERSA | 1995 |
| • NRC Merit Award for Scientific Publication (2010, 2011) | | 2014 |
| • The President's Awards for Scientific Publication (2013) | | 2015 |
| • SUSRED Awards 2016 for supervision of PhD degrees | | 2017 |

RESEARCH EXPERIENCE

- Synthesis of carbohydrate liquid crystals for use as liquid crystals and surfactants and applications in drug delivery and in cosmetic industry.
- Hydrophilic and lipophilic drug delivery in microemulsions, liposomes and Pickering emulsions using lyotropic liquid crystals
- Study of new subphases in ferroelectric and Antiferroelectric liquid crystals using electric-field-induced birefringence measured by a photo-elastic modulator.
- Application of low-cost, naturally available waste material, coconut coir dust, for desalination applications, removal of hardness from natural hard water, removal of fluoride from water etc.
- Display applications of liquid crystals
- Chemical Education

RESEARCH GRANTS COMPLETED (Principal Investigator or Co- investigator)

- 1. HETC- QIG W3 Grant (2012 – 2015)**
Title: Improving the bioavailability of natural bioactive components for drug and cosmetic based applications
- 2. National Research Council Grant No. 11-70 (April 2012 – April 2015)**
Title: Glycolipids for liposome and microemulsion formation for applications in the pharmaceutical and cosmetic industry
- 3. National Science Foundation (RG/2011/BS/02) (Sep 2011- Sep 2014)**
Title: Glycolipid formulations for stabilization of bioactive compounds and microemulsion formation
- 4. National Research Council (RG 06-25) (2008-2010)**
Title: Investigation and development of the uses of glycolipids isolated from natural sources and prepared by synthesis as liquid crystals and surfactants
- 5. National Science Foundation (RG/2007/FR/05) (2008-2010)**
Title: Synthesis and isolation of Glycolipids with liquid crystal properties
- 6. University of Peradeniya Research Grant (2008-2009)**
Title: Synthesis of glycolipids with liquid crystal properties
- 7. University of Peradeniya Research Grant (2006-2008)**
Title: Synthesis and isolation of glycolipids for use as surfactants

GRADUATE RESEARCH STUDENTS SUPERVISED

Current

Susith Pathmasiri	M.Sc.	Analytical Chemistry
T. Sakeetharan	M.Phil.	Science Education

Completed

2016	KANP Katuwavila	Ph. D.
2017	P. Premarathne	M. Phil.
2012	ARNM Abeyratne	M. Phil
1998	LPP Lankeshwara	M. Phil.
2015	Chaturika Rathnayaka	M. Sc. (Analytical Chemistry)
2014	A. M. Wijesekera	M.Sc. (Analytical Chemistry)
2014	M. Goonatillake	M. Sc. (Analytical Chemistry)
2013	T.M. Dasanayake	M. Sc. (Analytical Chemistry)
2015	B. P. Sisirananda	M.Sc. (Nanoscience & Nanotechnology)

2014	SHWBMGU Ekanayake	M. Sc. (Nanoscience & Nanotechnology)
2014	D Kettepearachchi	M.Sc. (Nanoscience & Nanotechnology)
2011	L. S. Hewawarawita	M. Sc. (Nanoscience & Nanotechnology)
2011	V. V. Uduwage	M.Sc. (Industrial Chemistry)
2016	AH Riyaza	M. Sc. (Chemical Education)
2015	K. Ramani	M. Sc. (Chemical Education)
2017	C. S. Wathudura	M. Sc. (Chemical Education)
2008	RM Sriyalatha	M. Sc. (Chemical Education)
2009	M Sumanapala	M. Sc. (Chemical Education)
2001	MMM Nawfal	M. Sc. (Chemical Education)
1999	NBA Rasheed	M. Sc. (Chemical Education)

COURSES TAUGHT

Undergraduate Theory Courses:

1. Principles of Chemistry (1st year)
2. Physical Chemistry I (2nd year)
3. Molecular properties, molecular spectroscopy and spectroscopic instrumentation (2nd year)
4. Advanced Physical Chemistry I (3rd year)
5. Physical Chemistry II (3rd year)
6. Advanced Physical Chemistry III (4th Year)
7. States of Matter (4th Year)

Undergraduate Laboratory Courses:

8. Elementary Chemistry Laboratory I (1st year)
9. Physical Chemistry Laboratory I (2nd year)
10. Physical Chemistry Laboratory II (3rd year)
11. Advanced Physical Chemistry Laboratory I (Special 3rd year)
12. Supervision 4th Year Research Projects

Postgraduate Courses:

- Spectroscopic Methods (M.Sc-Analytical Chemistry & Industrial Chemistry)

- Advanced Analytical Chemistry Laboratory I - Classical Methods (M.Sc-Analytical Chemistry)
- Advanced Analytical Chemistry Laboratory II (M. Sc. in Analytical Chemistry)
- Nanoelectronic Devices (M.Sc. in Nanoscience & Nanotechnology)
- Basic Chemistry (M.Sc. in Pharmaceutical Botany)
- Some Important Theoretical Concepts and Special Topics Relevant to Chemistry Teaching – I (M.Sc. in Science Education)
- Analytical Techniques and Bio-instrumentation (M.Sc. in Plant science)
- Laboratory Work (M.Sc. in Science Education)
- Supervision of research project
- Supervision of Independent Study

UNIVERSITY APPOINTMENTS

- Head, Department of Chemistry, University of Peradeniya 2013 - 2015
- Chairperson, Faculty research Committee 2007 – 2009
- Member, Senate Research Committee 2007 - 2009
- Chairperson, Board of Study in Science Education Postgraduate Institute of Science (PGIS), University of Peradeniya 2007 – 2015
- Secretary, Board of Study in Chemical Sciences Postgraduate Institute of Science, University of Peradeniya 2001-2003
- Actg Co-ordinator, M. Sc. in Science Education (Chemistry) March 2006- July 2006
- Co-ordinator of M. Sc. Programme in Science Education 2008 - 2010
- Member, Board of Management of PGIS Postgraduate Institute of Science (PGIS), University of Peradeniya 2007 – 2015
- Member, Coordinating Committee of PGIS Postgraduate Institute of Science (PGIS), University of Peradeniya 2007 – 2015
- Project Coordinator-HETC WIN 3 QIG 2012
- Acting Co-ordinator, Applied Science Programme August 2008 –November 2008

OTHER APPOINTMENTS

- Warden, Wijewardena Hall 1999 and 2000
- President, Science Teachers Association 2006/2007
- Vice-President, Alumni Association of University of Peradeniya 2007 – 2009
- President, Alumni Association of University of Peradeniya, 2009 – 2011
- Secretary of Peradeniya Science Alumni Association 2009 - 2010

- Senior Treasurer, Chemical Society/Department of Chemistry 2010-2015
- Member, Academic Board of Institute of Chemistry, Ceylon 2007 – 2009
- Council Member, Institute of Chemistry, Ceylon 1992
- Secretary, SLAAS– Section E2 2001

EDITORIAL WORK

Faculty Editor of Proc. PURSE 2007, 2008, 2009

Editor –Ceylon Journal of Science (Physical Sciences) 2008 Edition

Member of Editorial Board –Ceylon Journal of Science – from 2016 up to date

MEMBERSHIPS OF PROFESSIONAL ASSOCIATIONS

1. Member, Institute of Chemistry, Ceylon
2. Member, Sri Lanka Association for the Advancement of Science

NATIONAL SERVICES

May 2016	GCE (A/L) Chemistry Workshop	R/Sivali Central College, Rathnapura
April 2011	Chemistry Magic	Royal Central College, Polonnaruwa,
June 2009	Chemistry Magic	Mahamaya Girls College, Kandy,
October 2008	Chemistry Magic	Dudley Senanayake M. V. Tholangamuwa,
October 2007	Chemistry Magic	Mahamaya Girls College, Kandy,
October 2007	Lecture and Chemistry Magic	Magic HaliEla MMV, Badulla,
July 2007	Lecture and Chemistry Magic	Kalutara Maha Vidyalaya,
March 2007	Lecture and Chemistry Magic	Weeraketiya National School,
January 2007	Lecture and Chemistry Magic	Ginigathenna MMV,
November 2006	Lecture and Chemistry Magic	Kahawatte MMV,
October 2006	Lecture and Chemistry Magic	Sumana Balika Vidyalaya, Rathnapura
2002	Lecture	Badulla Central College
2016	Teacher Training Programme (Central Province) GCE (A/L) Chemistry Practicals	
2014	Teacher Training Programme (Uva Province) GCE (A/L) Chemistry Practicals	
2014	Teacher Training Programme, GCE (A/L) teachers -Technology Stream Western Province	
2012	Teacher Training Programme (Uva Province)-GCE (A/L) Chemistry Practicals	
2010	Teacher Training Programme (Central Province)-GCE (A/L) Chemistry New Syllabus, Analytical Chemistry, Unit 14.3, 14.4 & 14.14	

2008	Co-coordinator, Chemistry and Resource person (Chemical equilibrium) 5-day Teacher Training Programme for GCE (A/L) Science and Mathematics
2006	Workshop for GCE (A/L) Chemistry teachers, University of Peradeniya,
1990	Workshop for GCE (A/L) Chemistry teachers, University of Peradeniya, Chief Examiner- G.C.E (A/L) Chemistry Paper - 2000, 2001, 2002, 2003, 2006, 2007, 2008,2011

LOCAL WORKSHOPS/CONFERENCES/SYMPOSIA ORGANIZED

May 2009	“Improving Employability of Graduates”, organized by the Alumni Association of University of Peradeniya
September 2008	“Gateway to Success”, organized by the Alumni Association of University of Peradeniya
July 2008	Teacher Training Programme for GCE (A/L) Science and Mathematics, PGIS (Chemistry Component)
July 2007	National Conference on Advanced Materials for Emerging Technologies, organized by Faculty of Science & PGIS
September 2006	Workshop for technicians (IRQUE)
February 2008	2-day workshop on “Counselling skills for Senior Trainers of Trainers”, organized by the Alumni Association of University of Peradeniya
September 2007	Counseling Workshop for School Teachers (Grade 6-10) in Kandy District, organized by the Alumni Association of University of Peradeniya
July 2001	Seminar on “Principles of Ceramic Technology” for industrialists, Colombo Hilton Hotel, organized by SLAAS – E2
November, 2000	3-day Training Programme on “Ceramic Technology” for academics & industrialists, PGIS, organized by Board of Study in Chemical Sciences

LOCAL WORKSHOPS/CONFERENCES PARTICIPATED FOR PROFESSIONAL DEVELOPMENT

2016	Conference of Science Council of Asia – 2016, Colombo
2014	Workshop on Student Centered Learning organized by Curriculum Development Committee, Faculty of Science, University of Peradeniya
2012	Workshop on “Developing Research Capacity of the University Staff” organized by Staff Development Centre, University of Peradeniya
2012	First National Nanotechnology conference, organized by NSF at the Mt. Lavinia Hotel, Sri Lanka
2012	International Conference on Chemical Sciences, Organized by the Institute of Chemistry Ceylon, Colombo, Sri Lanka
2008	Research supervision in the 21 st Century organized by British Council
2007	International workshop (CHEMTECH) organized by Institute of Chemistry
2006	New Directions in Teaching, Learning and Evaluation of Chemical Science at the Tertiary

Level organized by Institute of Chemistry

- 2006 National Conference on Advanced Materials for Emerging Technologies, Peradeniya, Sri Lanka.
- 2002 Microcomputer interfacing methods in Chemistry organized by Department of Chemistry
- 2000 Leadership and Management skills for women organized by Staff Development Centre, University of Peradeniya

List of Publications

Google Scholar Citations – 2467 (ALL) h-index – 18 (ALL)

- 1) "Activated Coconut Coir for Removal of Water Hardness", Eshani Hettiarachchi, Nilwala Kottegoda, **A.D.L. Chandani Perera**, Desalination and Water Treatment, 66 (2017) 103–110
- 2) "Thermodynamic, Equilibrium and Kinetic Studies of Adsorption of Rhodamine B onto Activated Bamboo Carbon", Buddhika Gayani, **A. D. L. Chandani Perera**, Nilwala Kottegoda, Desalination and Water Treatment (2017) (accepted)
- 3) "Chitosan-Alginate Nanoparticle System Efficiently Delivers Doxorubicin to MCF-7 Cells", Nuwanthi P. Katuwavila, A. D. L. Chandani Perera, Sameera R. Samarakoon, Preethi Soysa, Veranja Karunaratne, Gehan A. J. Amaratunga, and D. Nedra Karunaratne, Journal of Nanomaterials, 2016 (2016) Article ID 3178904, 12 pages
<http://dx.doi.org/10.1155/2016/3178904>
- 4) "Controlled release of diclofenac sodium in glycolipid incorporated micro emulsions", E.P.N. Premarathne , D.N. Karunaratne and **A.D.L. Chandani Perera**, International Journal of Pharmaceutics, 511 (2016) 890–898.
- 5) "Improved delivery of caffeic acid through liposomal encapsulation", Nuwanthi Katuwavila, **Chandani Perera**, Veranja Karunaratne, Gehan Amarathunga and D.N. Karunaratne , Journal of Nanomaterials, 2016 (2016), Article ID 9701870, 7 pages
<http://dx.doi.org/10.1155/2016/9701870>
- 6) "Effective long-range interlayer interactions and electric-field-induced subphases in ferroelectric liquid crystals", **A. D. L. Chandani**, Atsuo Fukuda, Jagdish K. Vij, Yoichi Takanishi, and Atsuo Iida, Physical Review E (2016) 042707
DOI: [10.1103/PhysRevE.93.042707](https://doi.org/10.1103/PhysRevE.93.042707)
- 7) "Activated Coconut Coir for Removal of Sodium and Magnesium Ions from Saline Water", Eshani Hettiarachchi, Rumali Perera, **A. D. L. Chandani Perera** and Nilwala Kottegoda, Desalination and Water Treatment, (2015) 1-12
DOI: [10.1080/19443994.2015.1129649](https://doi.org/10.1080/19443994.2015.1129649)
- 8) "Hexadecyl- β -D-glucopyranoside: a liquid crystal with surfactant properties for stabilization of microemulsions", E. P. N. Premarathne, D.N. Karunaratne and A.D.L. Chandani Perera, Mol. Cryst. Liq. Cryst. 613, 1 (2015) 23-28.
- 9) "Enhanced Liposomal Encapsulation of Ascorbic Acid by the Liquid Crystal β -sitosteryl- β -D-Glucopyranoside", D.M.D.Samantha Dissanayake, D.N. Karunaratne and **A.D.L. Chandani Perera**, Mol. Cryst. Liq. Cryst. 613, 1 (2015) 94-102.
- 10) "Evaluation of Ion Adsorption Capacities of Murunkan Clay and Coir as Cost Effective Materials for Desalination of Water", Thiloka M Dassanayake, NilwalaKottegoda, and

- Chandani Perera**, International J of Earth Sciences & Engineering, 6, 4 (01) (2013) 788-790.
- 11) "Surfactant Behaviour of Novel Carbohydrate Liquid Crystals", A. R. N. M. Abeyrathne, D. N. Karunaratne and **A. D. L. Chandani Perera**, J. Natn. Sci. Foundation Sri Lanka, 41 (3) (2013) 185-194.
 - 12) "Superlattice structures observed in the extraordinary phase sequence and analyzed by the phenomenological Landau model and the partially molecular model", K. L. Sandhya, **A. D. L. Chandani**, A. Fukuda, S. Kumar and J. K. Vij, Physical Review E 87 (2013) 062506-1-12
 - 13) "Degeneracy lifting due to thermal fluctuations around the frustration point Between anticlinic antiferroelectric SmC_A* and synclinc ferroelectric SmC*", K. L. Sandhya, **A. D. L. Chandani**, A. Fukuda, J. K. Vij and K. Ishikawa, Physical Review E 87 (2013) 012502-1-13
 - 14) "Liquid crystal behavior of three novel glycosides", A. R. N. M. Abeyrathne, **A. D. L. Chandani Perera** and D. N. Karunaratne, J. Natn. Sci. Foundation Sri Lanka, 40, 2, (2012) 115-121
 - 15) "Discovery of a novel ferrielectric subphase of five-layer periodicity in binary mixtures of chiral smectic liquid crystals exhibiting unusual reversed phase sequence", **A. D. L. Chandani**, Atsuo Fukuda, S. Kumar, and Jagdish K. Vij, Liquid Crystals, 38 (5) (2011) 663.
 - 16) "Antiferroelectric and ferroelectric orderings in frustrated chiral tilted smectics and a continuous change from anticlinic SmCA* to synclinc SmC*", Sandhya K. L., **Chandani-Perera A. D. L.**, Fukuda A., Vij J. K., Ishikawa K., Europhysics Letters, 90, (2010) 56005.
 - 17) "Effects of confinement and electric field on the dielectric behaviour of smectic C_a* phase", U. Manna, J. K. Song, **A. D. L. Chandani** and J. K. Vij, Mol. Cryst. Liq. Cryst., 512, (2009) 21/[1867].
 - 18) "Temperature-induced sign reversal of biaxiality observed by conoscopy in some ferroelectric Sm-C* liquid crystals", Jang-kun Song, **A. D. L. Chandani**, Atsuo Fukuda, J. K. Vij, Ichiro Kobayashi, and A. V. Emelyanenko, Physical Review E - Statistical, Nonlinear, and Soft Matter Physics , 76 (1) (2007) 011709.
 - 19) "Study of the SmC_a* phase in the Tokyo mixture using tilted cell", J. K. Song, **A. D. L. Chandani**, O. E. Panarina, A. Fukuda, J. K. Vij, V. Goertz, and J. W. Goodby, Ferroelectrics, 344 (2006) 41 – 47
 - 20) "Discrete flexoelectric polarizations and biaxial subphases with periodicities other than 3- and 4-layers in chiral smectic liquid crystals frustrated between ferroelectricity and antiferroelectricity", **A. D. L. Chandani**, N. M. Shtykov, V. P. Panov, A. V. Emelyanenko, A. Fukuda, and J. K. Vij, Physical Review E, 72, (4), (2005) 041705 - 041705-13
 - 21) "Two kinds of smectic-C subphases in a liquid crystal and their relative stability dependent on the enantiomeric excess as elucidated by the electric field induced birefringence experiment", N. M. Shtykov, **A. D. L. Chandani**, A. V. Emelyanenko, A. Fukuda and J. K. Vij, Physical Review E, 71 (2005) 021711-1 - 021711-12
 - 22) "Recent trends in liquid crystal display technology", **A. D. L. Chandani**, Chemistry in Sri Lanka, 18, 1 (2001) 35 – 40.
 - 23) "Polyaniline retained Glass Templates as Sensors for Acidic/Basic and/or Redox Gases", R. M. G. Rajapakse, **A. D. L. Chandani** and H. D. S. Premasiri, J. Natn. Sci. Foundation Sri Lanka 28, 4 (2000) 277-285.

- 24) "Effect of Alignment Layer on V-shaped Switching in a Chiral Smectic Liquid Crystal." **A. D. L. Chandani**, Y. Cui, S. S. Seomun, Y. Takanishi, K. Ishikawa, H. Takezoe and A. Fukuda., Liq. Crys., 26, 2, (1999) 167-179.
- 25) "Surface Dependent V-shaped Switching in a Chiral Smectic Liquid Crystal." **A. D. L. Chandani**, Y. Cui, S. S. Seomun, Y. Takanishi, K. Ishikawa, H. Takezoe and A. Fukuda, Mol. Cryst. Liq. Cryst., 322 (1998) 337-342.
- 26) "Langevin Type Alignment in a Smectic Liquid Crystal Mixture Showing V-shaped Switching as Studied by Optical Second Harmonic Generation", S. S. Seomun, B. Park, **A. D. L. Chandani**, D. S. Hermann, Y. Takanishi, K. Ishikawa, H. Takezoe and A. Fukuda, Jpn. J. Appl. Phys., 37 (1998) 691-693.
- 27) "Novel Liquid Crystal Display on Polyaniline Modified Glass", **A. D. L. Chandani**, R. M. G. Rajapakse, L. P. P. Lankeshwara and N. L. W. L. Kumarasiri, Mol. Cryst. Liq. Cryst., 307 (1997) 125-133.
- 28) "Retention of Polyaniline on Glass Functionalized with Aniline", R. M. G. Rajapakse, **A. D. L. Chandani**, L. P. P. Lankeshwara, N. L. W. L. Kumarasiri, J. Syn. Met., 83 (1996) 73-76.
- 29) "Alignment of Nematic and Ferroelectric Liquid Crystals on Rubbed Polyaniline Films", **A. D. L. Chandani**, R. M. G. Rajapakse and L. P. P. Lankeshwara, Mol. Cryst. Liq. Cryst., 270 (1995) 85-89.
- Times cited: 1**
- 30) "Antiferroelectric Phase and Tristable Switching in MHPOBC" H. Takezoe, J. Lee, **A. D. L. Chandani**, E. Gorecka, Y. Ouchi, A. Fukuda, K. Terashima and K. Furukawa, Ferroelectrics 114 (1991) 187 – 197.
- 31) "Electric Field Induced Transitions among Antiferroelectric, Ferrielectric and Ferroelectric Phases in Chiral Smectic MHPOBC", K. Hiraoka, **A. D. L. Chandani**, E. Gorecka, Y. Ouchi, H. Takezoe and A. Fukuda, Jpn. J. Appl. 29 (1990) L1473 – L1476.
- 32) "Frequency Dependent Switching Behavior under Triangular Waves in Antiferroelectric and Ferrielectric Chiral Smectic Phases" J. Lee, **A. D. L. Chandani**, K. Itoh, Y. Ouchi, H. Takezoe and A. Fukuda, Jpn. J. Appl. Phys. 29 (1990) 1122-1127.
- 33) "Molecular Orientational Structures in Ferroelectric, Ferrielectric and Antiferroelectric Smectic Liquid Crystal Phases as Studied by Conoscope Observation", E. Gorecka, **A. D. L. Chandani**, Y. Ouchi, H. Takezoe and A. Fukuda, Jpn. J. Appl. Phys. 29 (1990) 131 – 137.
- 34) "Layer Structure Deformation and Electro – Optic Response in Electroclinic Effect", M. Johno, **A. D. L. Chandani**, Y. Takanishi, Y. Ouchi, H. Takezoe and A. Fukuda, Ferroelectrics 113 (1990) 123 – 130.
- 35) "Orientational Characteristics of nCB (n=5,6,7) Liquid Crystals by means of Fluorescence Probe Method", **A. D. L. Chandani** and S. Kobinata, Mol. Cryst. Liq. Cryst., 172 (1989) 57.
- 36) "Dynamics of Electroclinic Effect and Tristable Switching in Ferroelectric Liquid Crystals", **A. D. L. Chandani**, Y. Ouchi, H. Takezoe and A. Fukuda, Dynamic Behaviour of Macromolecules, Colloids, Liquid Crystals and Biological Systems by Optical and Electro-optical methods, Hirokawa Publishing Company, Chapter 9, Liquid Crystals, (1989) 399.

- 37) "Antiferroelectric Chiral Smectic Phases Responsible for the Tristable Switching in MHPOBC", A. D. L. Chandani, E. Gorecka, Y. Ouchi, H. Takezoe and A. Fukuda,
Jpn. J. Appl. Phys. 28 (1989) L1261 – L1264.
- 38) "Novel Phase Exhibiting the Tritable Switching", **A. D. L. Chandani**, Y. Ouchi, H. Takezoe, A. Fukuda, K. Terashima, K. Furukawa and A. Kishi, *Jpn. J. Appl. Phys. 28 (1989) L1261 – L1264.*
- 39) "SmecticLayar Switching by an Electric Field in Ferroelectric Liquid Crystal Cells", M. Johno, **A. D. L. Chandani**, Y. Ouchi, H. Takezoe, A. Fukuda, M. Ichihashi and K. Furukawa, *Jpn. J. Appl. Phys. 28 (1989) 119 – L120.*
- 40) "Chevron Layer Structure and Electro – Optic Properties in Surface Stabilized Ferroelectric Liquid Crystal Cells", N. Hiji, **A. D. L. Chandani**, S. Nishiyama, Y. Ouchi, H. Takezoe and A. Fukuda, *Ferroelectrics 58 (1988) 99 – 109.*
- 41) "Tristable Switching in Surface Stabilized Ferroelectric Liquid Crystals With a Large Spontaneous Polarization", **A. D. L. Chandani**, T. Hagiwara, Y. Suzuki, Y. Ouchi, H. Takezoe and A. Fukuda, *Jpn. J. Appl. Phys. 27 (1988) L729 – L 732.*
- 42) "Relation between Spontaneous Polarization and Rotational Viscosity in Enantiomeric Mixtures of Ferroelectric Liquid Crystals", **A. D. L. Chandani**, Y. Ouchi, H. Takezoe and A. Fukuda, *Jpn. J. Appl. Phys. 27 (1988) L276 – L279.*
- 43) "Molecular Conformation and Orientational Order in nCB Liquid Crystals", S. Koinata, T. Kobayashi, H. Yoshida, **A. D. L. Chandani** and S. Maeda, *J. Mol. Stru., 146 (1986) 373 – 382.*
- 44) "Molecular Ordering in Liquid Crystals and the Effect of End –Chains on the Even – Odd Effect", T. Kobayashi, H. Yoshida, **A. D. L. Chandani**, S. Koinata and S. Maeda, *Mol. Cryst. Liq. Cryst., 136 (1986) 267 – 279.*

LIST OF COMMUNICATIONS

- 1) "Sri Lankan vein graphite/polyaniline composite counter electrode for dye sensitized solar cells by screen printing method", I. Perera, S. Thennakoon, G. R. A. Kumara, **A. D. L. C. Perera** and S. S. Gunathilake, Proc. Peradeniya University International Research Sessions, 20 (**2016**) 361.
- 2) "Multi-layered periodic structures appearing between ferroelectric and antiferroelectric chiral smectic phases observed by resonant micro-beam X-ray scattering", Y. Takanishi, **A. D. L. Chandani**, A. Fukuda, J. K. Vij, and A. Iida, Proc. of ILCC, Kent (2016)
- 3) "Fluoride Adsorption on Activated Coconut Coir", Aloka Paragodaarachchi, Nilwala Kottegoda and **A. D. L. Chandani Perera**, Proceedings of Second Research and Development Symposium, World Water Day, 18th March 2016, BMICH, Colombo
- 4) "Microemulsion based-novel binary drug delivery system with glycolipid as permeation enhancer", E. P. N. Premarathne, D. N. Karunaratne and **A. D. L. Chandani Perera**, Proc. of 16th Conference of Science Council of Asia, May 30 - June 1, Colombo, Sri Lanka (2016) 95
- 5) "Supplementary Material to Enhance Learning Electronic Energy Levels of Atoms: A Case Study with Grade 12 Students in Matale Education Zone", R. Unais, **A. D. L. C. Perera** and W. D. Chandrasena, Proc. of PGIS Research Congress 2016,
- 6) "Use of Interactive Lecture Demonstration Method to Enhance Students' Understanding of Electrochemistry in G.C.E. (A/L): A Case Study in Kandy Education Zone", C. S. Wathudura, **A. D. L. C. Perera** and W. D. Chandrasena, Proc. of PGIS Research Congress 2016,
- 7) "E - T phase diagrams with EFIB contours and RXRS in Se-containing chiral smectic LC mixtures frustrating between ferro- and antiferro-electricity", **A. D. L. Chandani**, Atsuo Fukuda, Jagdish K. Vij, Yoichi Takanishi, and Atsuo Iida, Proc. Japanese Liquid Crystal Conference, September 2015.
- 8) "Field-induced superlattice structures and effective long-range interlayer interactions (LRILIs) in ferrielectric liquid crystals", Y. Takanishi, **A. D. L. Chandani**, A. Fukuda, J. K. Vij and A. Iida, Proc. 15th International Conference on Ferroelectric Liquid Crystals, Prague, Czech republic, June 28 - July 3, **2015**, 157
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