

## CURRICULUM VITAE

### Mohammed Ahmed Alaasar

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#### Personal Data

<b>Name:</b>	Mohammed Ahmed Alaasar
<b>Date of Birth:</b>	2, May, 1980
<b>Nationality:</b>	Egyptian
<b>Marital Status:</b>	Married
<b>Occupation:</b>	- Lecturer in Organic Chemistry, Faculty of Science, Cairo University - Alexander von Humboldt research fellow, Martin-Luther-University Halle-Wittenberg, Germany
<b>Permanent Address:</b>	Cairo University, Faculty of Science, Chemistry Department Giza – 12613 - Egypt
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#### Education:

**1. B.Sc. in Chemistry, Major (Very good) (2002)**

Cairo University - Faculty of Science - Chemistry Department

**2. Premaster diploma, Chemistry (Very good), Cairo University, 2004**

**3. M. Sc. in Organic Chemistry (2006)**

Cairo University - Faculty of Science - Chemistry Department

The Thesis title: “**Synthesis and phase behaviour of some rod-like molecules of the anilide type**”.

**4. Ph. D. in Organic Chemistry (2009)**

Cairo University - Faculty of Science - Chemistry Department

The Thesis title: “**Synthesis and phase behavior of supramolecular liquid crystals of rod-shaped molecules**”.

## **Employment**

<b>Name of Institution</b>	<b>Location</b>	<b>Position</b>	<b>From – To</b>
Cairo University, Faculty of Science, Chemistry Department	Giza, Egypt	Instructor	12.12.2002-28.11.2006
Cairo University, Faculty of Science, Chemistry Department	Giza, Egypt	Assistant Lecturer	28.11.2006-29.9.2009
Cairo University, Faculty of Science, Chemistry Department	Giza, Egypt	Lecturer	29.9.2009 to date
Martin-Luther-University, Faculty of Natural Sciences II, Chemistry Department	Halle-Wittenberg, Germany	DAAD Postdoctoral Research Fellow	10.7.2011-10.1.2012
Martin-Luther-University, Faculty of Natural Sciences II, Chemistry Department	Halle-Wittenberg, Germany	Alexander von Humboldt Postdoctoral Research Fellow	1.9.2012 to date

### **Instrumental training experiences:**

- Training on IR, UV, NMR, and mass spectroscopic techniques in the faculty of science, Cairo University.
- Familiar with, Polarized Light Microscopy (PLM), Differential Scanning Calorimetry (DSC) instruments and electro optic investigation of liquid crystals.

### **Workshops:**

- Participated in the workshop of NMR, and Mass Spectroscopy on the side of the biannual conference on chemistry, chemistry department, faculty of science, Cairo University, March, 2004. **[Certificates can be supplied if needed]**
- Guidelines for Researchers workshop, Bibliotheca Alexandrina, Alexandria, September, 2010. **[Certificates can be supplied if needed]**
- Special German language course prepared for DAAD scholarship holders in Goethe institute, Doki, Giza, Egypt, 9-28 April, 2011.  
**[Certificates can be supplied if needed]**
- German culture course in Goethe institute, Doki, Giza, Egypt, 16-18 April, 2011.  
**[Certificates can be supplied if needed]**
- Intensive German language course in Goethe institute, Dresden, Germany, 2.07.2012 to 23.08.2012.  
**[Certificates can be supplied if needed]**

- Faculty and leadership development project workshops: **FLDP** center, Cairo University, Giza, Egypt. Funded by Higher Education Enhancement Project Fund (**HEEPF**).  
[Certificates can be supplied if needed]

<i>No.</i>	<i>Course Name</i>	<i>Date</i>	<i>Academic Position</i>
1	Effective Presentation Skills	4-6/12/2006	Assistant Lecturer
2	Effective Communication Skills	11-13/12/2006	Assistant Lecturer
3	Effective Teaching	18-21/12/2006	Assistant Lecturer
4	Ethics and etiquette of Profession	25-27/12/2006	Assistant Lecturer
5	Using technology in education	12-14/6/2010	Lecturer
6	Management of the research team	14-16/6/2010	Lecturer

#### **Conference participation:**

- Structure Property Relationship of Liquid Crystalline Materials (Oral), First Conference of Scientific Societies, **M. Alaasar**, April 2005, **Cairo University, Egypt**.

- Participated in the organization of the international biannual conferences on chemistry March, 2004, 2006, 2008, and 2010, **Cairo University, Egypt**.

[Certificates can be supplied if needed]

- Synthesis and investigation of non-symmetric banana liquid crystals, poster session, **M. Alaasar**, M. Prehm and C. Tschierske, Alexander von Humboldt Meeting, March 2013, **Hannover, Germany**.

- 14<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, **Magdeburg, Germany** from September 1<sup>st</sup> to 6<sup>th</sup>, 2013 (see list of publications for details).

#### **Professional Experience:**

##### **A- Research experience:**

- Basic research experience was obtained during the work in master thesis, Ph.D. thesis, DAAD and Alexander von Humboldt fellowships in Martin Luther University, Halle (Saale), Germany.
- Organic Synthesis of novel liquid crystalline materials.
- Investigation of liquid crystals by means of DSC, PLM, XRD and electro optic techniques.
- Interested in the applications of the liquid crystalline materials.
- Supervisor of 4 master students (**Cairo University**).

### **B- Teaching experiences:**

- Engaged full time (percentage contribution 70-80%) in teaching and tutoring of practical courses as a teaching assistant (Dec, 2002-November, 2006), an assistant lecturer (November, 2006-July, 2009) and a lecturer (September, 2009- to date) for the Undergraduate level in the department of Chemistry, Faculty of Science, Cairo University.
- Teaching undergraduate students in organic chemistry lectures as lecturer in organic chemistry (September, 2009 to date), Cairo University.

### **Membership:**

1. Member in the scientific society of faculty of science, Cairo University since 2004.

### **Awards and honours:**

- Hamed Khalefa award; awarded by the department of chemistry, Cairo University honoring the name of professor Hamed Khalefa for the best ten students in all chemistry group, March, 2003.
- German Egyptian short term scholarship (**GERSS**) in Germany for the period of 6 months from 10.07.2011 to 10.01.2012. Funded by the Ministry of Higher Education and Scientific Research (**MHESR**) and the German Academic Exchange Service (**DAAD**).
- Alexander von Humboldt postdoctoral fellowship in Germany for the period of 16 months from 01.09.2012 to 31.08.2014.

### **Personal skills:**

- High communication skills.
- Working ability under different conditions and burdens.
- Good presentation skills.
- Able to work within a team.

### **Language skills:**

#### **1- Arabic: (Mother tongue)**

#### **2- English:**

- Excellent skills in writing, reading, listening and conversation.
- Able to make teaching of chemistry courses in English.
- Able to give talks and presentations in English
- Awarded Toefl grade (Score 556) in English.

#### **3- German:**

- Good skills in reading and listening.

### **Computer skills:**

- Excellent user of computer windows systems.
- Has excellent internet browsing skills and excellent user of Microsoft office programs (Word, Powerpoint,.....etc).
- Excellent user of graphing programs in chemistry like sigma plot, Isis, Chemdraw, Origin.

### **Reviewing in peer-reviewed journals:**

1. Journal of Molecular Structure.
2. Journal of Advances in Condensed Matter Physics.
3. Journal of Current Chemistry Letters.

### **List of publications:**

- 1- Possibility of Mesophase Formation in Some Model Compounds Based on the N-aryl benzamide group. S. Mohammady, **M. Alaasar** and A. Fahmi. *Thermochimica Acta*, **2007**, 459, 40.
- 2- Supramolecular hydrogen-bonded liquid crystals formed from 4-(4'-Pyridylazo phenyl)-4"-substituted benzoates and 4-alkoxybenzoic acids. M. Naoum, A. Fahmi and **M. Alaasar**. *Mol. Cryst. Liq. Cryst.*, **2008**, 482, 57.
- 3- Supramolecular hydrogen-bonded liquid crystals formed from 4-(4'-pyridylazophenyl) -4"-alkoxy benzoates and 4-substituted benzoic acids. M. Naoum, A. Fahmi and **M. Alaasar**. *Mol. Cryst. Liq. Cryst.*, **2008**, 487, 74.
- 4- Supramolecular liquid crystals induced by hydrogen-bonding interactions between non-mesomorphic compounds. I. 4-(4'-Pyridylazophenyl-4"-substituted benzoates and 4-substituted benzoic acids. M. Naoum, A. Fahmi and **M. Alaasar**. *Mol. Cryst. Liq. Cryst.*, **2009**, 506, 22.
- 5- Supramolecular liquid crystals in binary and ternary systems. M. Naoum, A. Fahmi, **M. Alaasar** and R. Salem. *Thermochimica Acta*, **2011**, 517, 63.
- 6- Effect of lateral substitution of different polarity on the mesophase behavior in pure and mixed states of 4-(4'-Substituted phenylazo)-2-substituted phenyl-4"-alkoxybenzoates. M. Naoum, and A. Fahmi, **M. Alaasar** and M. Abdel-Aziz. *Liq. Cryst.*, **2011**, 38, 391.
- 7- Hydrogen-bonded supramolecular complexes formed between isophthalic acid and pyridine-based derivatives. **M. Alaasar**, C. Tschierske and M. Prehm. *Liq. Cryst.*, **2011**, 38, 925.
- 8- Effect of exchange of terminal substituents on the mesophase behavior of laterally methyl substituted phenyl azo benzoates in pure and mixed systems. M. Naoum, A. Fahmi, **M. Alaasar** and N. Ahmed. *Thermochimica Acta*, **2011**, 525, 78.

- 9- Novel Angular supramolecular hydrogen-bonded liquid crystals. M. Naoum, A. Fahmi, A. Refaie and **M. Alaasar**. *Liq. Cryst.*, **2011**, *iFirst*, 1.
- 10- A liquid crystalline phase with uniform tilt, local polar order, superstructural chirality and capability of symmetry breaking. **M. Alaasar**, M. Prehm, M. Nagaraj, J. K. Vij and C. Tschierske. *Adv. Mater.* **2013**, *25*, 2186.
- 11- Influence of halogen substituent on the mesomorphic properties of five-ring banana-shaped molecules with azobenzene wings. **M. Alaasar**, M. Prehm and C. Tschierske. *Liq. Cryst.* **2013**, *40*, 656.
- 12- 4-Cyanoresorcinol based bent-core mesogens with azobenzene wings – emergence of sterically stabilised polar order in liquid crystalline phases. **M. Alaasar**, M. Prehm, K. May, A. Eremin and C. Tschierske. *Adv. Funct. Mater.*, **2013**, online, DOI: 10.1002/adfm.201302295.
- 13- New room temperature dark conglomerate mesophase formed by bent-core molecules combining 4-iodoresorcinol with azobenzene units. **M. Alaasar**, M. Prehm, and C. Tschierske. *Chem. Comm.*, **2013**, *49*, 11062.
- 14- New azobenzene containing bent-core liquid crystals based on disubstituted resorcinol. **M. Alaasar**, M. Prehm and C. Tschierske. *Liq. Cryst.*, **2014**, *41*, 126.
- 15- New azobenzene containing bent-core liquid crystals. **M. Alaasar**, M. Prehm, A. Eremin and C. Tschierske. *14<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Magdeburg, Germany, 2013*, (Oral presentation).
- 16- New photoisomerizable bent-core liquid crystals with dark conglomerate phases. **M. Alaasar**, M. Prehm and C. Tschierske. *14<sup>th</sup> International Conference on Ferroelectric Liquid Crystals, Magdeburg, Germany, 2013*, (Poster).
- 17- Synthesis and investigation of non-symmetric banana liquid crystals. **M. Alaasar**, M. Prehm and C. Tschierske. *Alexander von Humboldt Meeting, March, Hannover, Germany, 2013*, (Poster).
- 18- 4-Cyanoresorcinol bisbenzoates: New LC phases at the transition between polar and non polar phases of bent-core mesogens. **M. Alaasar**, M. Prehm and C. Tschierske. (Under preparation).

**The contact information of three references:**

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