

# CV

## 1- Personal information

**Name:** Qusiy H. Al-Galiby

الاسم الثلاثي: قصي حبيب حطيحط

**Birthday:** 07/09/1975

اللقب: الغالبي

**Birthplace:** Iraq

تاريخ الولادة: 1975/09/07

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مكان الولادة: العراق/الديوانية

**Emails:**

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الاختصاص الدقيق: الكترونييات الكم وعلوم النانو

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تاريخ التعيين: 2000/1/24

## 2- Educational Qualifications:

B.Sc from Department of Physics, University of Al-Qadisiyah , Al-Qadisiyah, Iraq.

M.Sc from Faculty of Physics, University of Plovdiv, Plovdiv, Bulgaria.

PhD from Department of physics, Lancaster University, Lancaster, Lancashire, England, UK.

Dr Qusiy Al-Galiby is Lecturer and Researcher in Physics department, University of Al-Qadisiyah, Iraq. He is also a member of Prof. Colin Lambert's group in Quantum Technology Centre (QTC), Lancaster University, England, UK, and his main research area is Quantum transport in molecular nanostructures.

## 3- Current Employment: Lecturer and Researcher at Al-Qadisiyah University

**Started:** 24/01/2000

Dr Qusiy Al-Galiby will be Senior Research Associate on 2<sup>th</sup> of Jan 2018 at Physics department, Lancaster University, UK. In this position he will take responsibility for day to day project management of the EPSRC-funded QSAMs project. Collaborators from Durham and Cambridge universities within the EPSRC-funded QSAMs project. A range of outside collaborators from EPSRC and EU funded projects. Analyse results from computational simulations and analytical theory. Contribute to the interpretation of the results. Build models of molecular-scale electron and heat transport. Draft scientific papers arising from the project Contribute to the development of the GOLLUM transport code. Participate in national and international conferences, presenting the results of the project and learning about current advances in the field. Generally help with the running of the research group, including: supervision of new/junior members of the group and PG students.

#### 4- Electronic Links:

Link in Google Scholar

<http://scholar.google.com/citations?user=R6gyGUMAAAAJ&hl=en>

Link in researchgate

[https://www.researchgate.net/profile/Qusiy\\_Al\\_Galiby](https://www.researchgate.net/profile/Qusiy_Al_Galiby)

Link in Lancaster University

<http://www.lancaster.ac.uk/physics/about-us/people/qusiy-al-galiby>

Link in PUBFACTS SCIENTIFIC PPUBLICATION DATA

<https://www.pubfacts.com/author/Qusiy+Al-Galiby>

Link in Al-Qadisiyah University

<http://qu.edu.iq/staff/qusiyalgaliby/>

#### 5- List of published research papers:

1. **Al-Galiby, Qusiy**, et al. "Exploiting the extended  $\pi$ -system of perylene bisimide for label-free single-molecule sensing." *Journal of Materials Chemistry C* 3.9 (2015): 2101-2106.
2. **Al-Galiby, Qusiy H.**, et al. "Tuning the thermoelectric properties of metalloporphyrins." *Nanoscale* 8.4 (2016): 2428-2433.
3. Manrique, David Zsolt, **Qusiy Al-Galiby**, Wenjing Hong, and Colin J. Lambert. "A new approach to materials discovery for electronic and thermoelectric properties of single-molecule junctions." *Nano letters* 16, no. 2 (2016): 1308-1316.
4. Algharagholy, Laith A., **Qusiy Al-Galiby**, Haider A. Marhoon, Hatef Sadeghi, Hayder M. Abduljalil, and Colin J. Lambert. "Tuning thermoelectric properties of graphene/boron nitride heterostructures." *Nanotechnology* 26, no. 47 (2015): 475401.
5. Li, Yonghai, Masoud Baghernejad, **Al-Galiby Qusiy**, David Zsolt Manrique, Guanxin Zhang, Joseph Hamill, Yongchun Fu et al. "Three-State Single-Molecule Naphthalenediimide Switch: Integration of a Pendant Redox Unit for Conductance Tuning." *Angewandte Chemie International Edition* 54, no. 46 (2015): 13586-13589.

6. Almutlaq, Nasser, **Qusiy Al-Galiby**, Steven Bailey, and Colin J. Lambert. "Identification of a positive-Seebeck-coefficient exohedral fullerene." *Nanoscale* 8, no. 28 (2016): 13597-13602.
7. Algharagholy, Laith, Thomas Pope, **Qusiy Al-Galiby**, Hatef Sadeghi, Steve WD Bailey, and Colin J. Lambert. "Sensing single molecules with carbon–boron-nitride nanotubes." *Journal of Materials Chemistry C* 3, no. 39 (2015): 10273-10276.
8. Garcia, Diego, L. Rodríguez-Pérez, M. A. Herranz, Diego Peña, Enrique Guitian, S. Bailey, **Qusiy Al-Galiby** et al. "AC 60-aryne building block: synthesis of a hybrid all-carbon nanostructure." *Chemical Communications* 52, no. 40 (2016): 6677-6680.
9. Liu, Longlong, Qian Zhang, Shuhui Tao, Cezhou Zhao, Eman Almutib, **Qusiy Al-Galiby**, Steven WD Bailey et al. "Charge transport through dicarboxylic-acid-terminated alkanes bound to graphene–gold nanogap electrodes." *Nanoscale* 8, no. 30 (2016): 14507-14513.
10. Sadeghi, Hatef, Sara Sangtarash, **Qusiy Al-Galiby**, Rachel Sparks, Steven Bailey, and Colin J. Lambert. "Negative differential electrical resistance of a rotational organic nanomotor." *Beilstein journal of nanotechnology* 6, no. 1 (2015): 2332-2337.
11. Lambert, Colin J., Hatef Sadeghi, and **Qusiy H. Al-Galiby**. "Quantum-interference-enhanced thermoelectricity in single molecules and molecular films." *Comptes Rendus Physique* 17.10 (2016): 1084-1095.
12. Noori, Mohammed, Albert C. Aragonès, Giuseppe Di Palma, Nadim Darwish, Steven WD Bailey, **Qusiy Al-Galiby**, Iain Grace et al. "Tuning the electrical conductance of metalloporphyrin supramolecular wires." *Scientific Reports* 6 (2016): 37352.
13. **Al-Galiby, Qusiy H.**, et al. "Tuning the Seebeck coefficient of naphthalenediimide by electrochemical gating and doping." *Nanoscale* 9.14 (2017): 4819-4825.
14. Noori, M., Sadeghi, H., **Al-Galiby, Q.**, Bailey, S., & Lambert, C. (2017). High cross-plane thermoelectric performance of metallo-porphyrin molecular junctions. *Physical Chemistry Chemical Physics*.
15. Junyang Liu, Xiaotao Zhao<sup>2</sup>, **Qusiy Al-Galiby**, et al. "Radical Enhanced Charge Transport in Single-Molecule Phenothiazine Electrical Junctions" *Angewandte Chemie International Edition*, **Submitted** 2017.

16. Yongchun Fu, Jian-Hong Tang, David Zsolt Manrique, **Qusiy Al-Galiby**, et al. "Tuning the Conductance of Single-Molecule Organometallic Complex Junctions within Four Redox States" nature communication, **Submitted** 2017.

17. Famili, Marjan, Iain M. Grace, **Qusiy Al-Galiby**, Hatef Sadeghi, and Colin J. Lambert. "Toward High Thermoelectric Performance of Thiophene and Ethylenedioxythiophene (EDOT) Molecular Wires." *Advanced Functional Materials* (2017).

**Conference Paper:**

1- **Al-Galiby, Qusiy**, et al. "Conference Paper": Controlling Charge Transport in Single-Molecule Using Electrochemical Gate: Theoretical Approach. Konstanz University, Germany, 2015.

2- KARTHIGA KANTHSAMY, EJVIND OLSEN, DAVID ZSOLT MANRIQUE, **QUSIY AL GALIBY**, CHRISTOPH TEGENKAMP, COLIN LAMBERT, and HERBERT PFNÜR. "Conference Paper": Conductance through a ferrocene based molecule. Regensburg, Germany, 2016.

**6- The international conferences and workshops:**

1. International conference and workshop, North Uist Scotland April 2013.
2. International conference and workshop MOLESCO (Molecular- Scale Electronic) in Madrid-Span, from 31 March to 2<sup>nd</sup> April 2014.
3. International conference and workshop, Molecular- Scale Electronic, Konstanz, Germany 29 September to 02 October 2014.
4. International conference and workshop SYMOLESCO workshop, Basel University, Engelberg, Switzerland, February, 8-11, 2015.
5. Workshop at the STFC Daresbury Laboratory, UK, 25-26 November 2013.

6. International conference and workshop Single Molecule-Electronics, Regensburg University, Regensburg, Germany 14 and 18 September 2015.
7. Charismatic conference, Lancaster University, Single Molecule sensing, 2014.
8. Mini-Conference, Lancaster University, Molecular- Scale Electronic and condensed matter physics projects, Department of physics, Lancaster University, 2015.

## **7- Scientific Collaboration**

We have collaboration with experimental groups in Oxford, Madrid and Bern to test theoretically their experimental results and in the next days we will carry out calculations to interpret their results. We will continue to collaborate with Colin's group -Lancaster University as a Visiting Researcher in Quantum Technology Centre (QTC) from 01 September 2016 to 31 August 2017.

During my PhD study I have collaborated with experimental groups in Madrid, Bern, Barcelona and China to test theoretically their experimental results and now I have collaboration with experimental groups in Oxford, Bern and China to carry out the calculations and interpret their results. Collaborating groups included:

Department of Chemistry, University of Oxford.

IMDEA-Nanociencia, Madrid, Spain.

University of Santiago de Compostela, Spain.

Universidad Complutense de Madrid, Spain.

Quantum Technology Centre-Lancaster University-UK.

Department of Physical Chemistry, University of Barcelona, Spain.

Institute for Bioengineering of Catalonia (IBEC), Barcelona, Spain.

Institute de Ciència de Materials de Barcelona (ICMAB-CSIC Spain), Campus Universitari, Catalonia, Spain.

The University of Nottingham, UK.

University College London, UK.

Department of Chemistry, University of Bern, Switzerland.

Department of Chemical and Biochemical Engineering, Xiamen University, China,

Department of Chemistry, Xi'an-Jiaotong Liverpool University, Suzhou, Jiangsu.

Department of Chemistry and Chemical Engineering, Chongqing University, China.

Institute of Chemistry, Chinese Academy of Sciences Beijing, China.

Physics Department, Catania University, Italy.

Laboratory for Nano and Quantum Engineering, University of Hannover, Germany.

### 8- Experience of Quantum electronics and nanoscience fields:

During the past five years, my analytical and theoretical skills have been applied to problems in: Quantum Transport, Nano-electronics and Single-Molecule Electronics, Electrical and thermal properties of the molecules, Electrochemical Gating, Switching, rectifier, 2D materials (Graphene, Silicene, Boron Nitride), 3D materials (Gold, Silicene), Transistors and Sensors, Electron and Phonon Transport, Non-equilibrium Greens Function (NEGF) Density Functional Theory (DFT) Molecular Dynamics (MD).

#### 1- النشاطات الاكاديمية: المحاضرات في الدراسة الاولى

ت	اسم المادة الدراسية التي تم تدريسها	القسم	المرحلة الدراسية	السنة الدراسية
1	الالياف البصرية	الفيزياء	الثالثة	2011-2008
2	الثرموداينميك	الفيزياء	الثالثة	2017-2016

#### 2- كتب الشكر والتقدير

ت	الجهة المانحة لكتاب الشكر والتقدير	رقم الامر الديواني او الوزاري او الجامعي او الاداري	تاريخه	سبب الشكر
1	جامعة القادسية/قسم البحث والتطوير	ق ط/ 3884	2017/3/12	نشر بحث علمي
2	جامعة القادسية/قسم البحث والتطوير	ق ط/ 8086	2017/6/1	نشر بحث علمي
3	جامعة القادسية/قسم البحث والتطوير	ق ط/ 12421	2017/8/27	نشر بحث علمي

### 3- اللجان الدائمة والمؤقتة:

ت	اسم اللجنة	رقم وتاريخ الامر الديواني او الوزاري او الجامعي او الاداري
1	لجنة تقويم المجلات العلمية في الجامعة	4393 في 2017/3/20
2	لجنة مناقشة بحوث التخرج	3283 في 2017/4/4
3	لجنة صلاحية المجلات الاجنبية	4209 في 2017/4/30

### 4- نشاطات اخرى:

ت	نوع النشاط	تاريخه	المكان
1	الحصول على شهادة تقديرية من السيد رئيس الجامعة بمناسبة يوم الجامعة لنشر اكثر من اربعة بحوث في مجلات عالمية ضمن تصنيف ثومسن رويترز سنة 2016	2017/2/19	جامعة القادسية