

Rasha Ghunaim

Curriculum Vitae

Personal information

Name	Rasha Ghunaim
Date of birth	05.02.1986
Place of birth	Hebron-Palestine
Nationality	Palestinian
Address	Sourif - Hebron
E-mail	rgonaim@ppu.edu rashaeghneem@yahoo.com

Employment History

- 2019 – present** Palestine Polytechnic University, Hebron - Palestine
Assistant Professor
- 2015 - 2019** Leibniz Institute for Solid State and Material Research (IFW)
Dresden- Germany.
- Doctorate studies**
- Preparation of CNTs-based nanocomposites for biomedical applications.
 - Full characterization of the resulting nanocomposites, including SEM, TEM, EDX, TGA, XRD and SQUID techniques.
 - Testing the feasibility of the resulting nanocomposites for magnetic fluid hyperthermia based on calorimetric measurements using AC magnetic field.
 - Supervision on internship students.

- 2012 - 2014** Palestine Polytechnic University, Hebron - Palestine
Lecturer.
- Lecturer for Inorganic chemistry and Instrumental analysis courses and their practical courses, in addition to general chemistry courses.
 - Experiments design for practical courses.
 - Preparation of inorganic chemistry and instrumental analysis laboratories manuals.
 - Supervision on the graduation projects for undergraduate students.
- 2008 - 2009** Beit-Ula Secondary School for Girls, Hebron- Palestine
Chemistry teacher
- Chemistry teacher for the 10th, 11th and 12th grades.
 - Class preparation for the scientific and literary branches.
 - Experiments design for Lab classes.

Education

- 2015 - 2019** Leibniz Institute for Solid State and Material Research – TU Dresden, Germany
Doctorate degree in Chemistry, (PhD)
Thesis: “Development of intermetallic filled Carbon nanotube sensors for Hyperthermia applications”
Rating: Magna cum lauda
- 2009 - 2012** University of Jordan, Jordan
Master degree in Chemistry (Inorganic chemistry)
Thesis: “Synthesis and Characterization of Some Stable Copper(III) Complexes”
Rating: Excellent with honor degree (4.0/4.0)
- 2004 - 2008** Hebron University, Palestine
Bachelor degree in Chemistry
Graduation Project: Surface Physical Chemistry
Rating: Excellent with honor degree (94.36 %).

2004

Sourif Secondary School for Girls, Hebron-Palestine.
Certificate of General Secondary Education
Rating: Excellent (96.3 %)

Knowledge and skills

Language Skills:

Mother tongue: Arabic

Other Languages: English- Professional working proficiency
German- Limited working proficiency (B1- level)

Computer Skills: Origin

Endnote

Chemdraw

ImageJ program for TEM images editing

Microsoft Office package

Awards

1. Doctoral studies scholarship from the DAAD (German Academic Exchange Service) – 2015.
2. Master scholarship from the DAAD – 2009.
3. Bachelor scholarship from the Ministry of Education and Higher Education/ Palestine – 2004.

Publications

1. J. Körner, C. F. Reiche, **R. Ghunaim**, *et al.*, “Magnetic properties of individual Co₂FeGa Heusler nanoparticles studied at room temperature by a highly sensitive co-resonant cantilever sensor”, *Scientific Reports*, **2017**, DOI: 10.1038/s41598-017-08340-z.
2. **R. Ghunaim**, V. Eckert, M. Scholz, *et al.*, “Carbon nanotube-assisted synthesis of ferromagnetic Heusler nanoparticles of Fe₃Ga (Nano-

Galfenol)", *Journal of Materials Chemistry C*, **2018**, 6, 1255-1263. DOI: 10.1039/c7tc04618a.

3. **R. Ghunaim**, M. Scholz, C. Damm, *et al.*, "Single-crystalline FeCo nanoparticle-filled carbon nanotubes: synthesis, structural characterization and magnetic properties", *Beilstein Journal of Nanotechnology*, **2018**, 9, 1024-1034. DOI:10.3762/bjnano.9.95.
4. **R. Ghunaim**, C. Damm, D. Wolf, *et al.*, "Fe_{1-x}Ni_x Alloy Nanoparticles Encapsulated inside Carbon Nanotubes: Controlled Synthesis, Structure and Magnetic Properties", *Nanomaterials*, **2018**, 8, 576. DOI: 10.3390/nano8080576.
5. W. H. Rimawi, H. Salim, D. Seder, **R. Ghunaim** and S. Hampel. "Photocatalytic degradation of some Phenolic compounds present in Olive mill wastewater", *Asian Journal of Chemistry*, **2018**, 30(9):1994-1998, DOI: [10.14233/ajchem.2018.21374](https://doi.org/10.14233/ajchem.2018.21374).
6. E. Thauer, A. Ottmann, P. Schneider, ..., **R. Ghunaim** and R. Klingeler. "Filled Carbon Nanotubes as Anode Materials for Lithium-Ion Batteries", *Molecules*, **2020**, 25, 1064; doi:10.3390/molecules25051064.
7. L. Möller, E. Thauer, A. Ottmann, L. Deeg; **R. Ghunaim**, S. Hampel, R. Klingeler, "CoFe₂O₄-filled carbon-nanotubes as anode material for lithium-ion batteries", *Journal of Alloys and Compounds*, **2020**: 155018. DOI: 10.1016/j.jallcom.2020.155018.

Conferences and summer schools

1. Summer / Winter schools

- i. Condensed Matter summer school, 27.07.2015 - 29.07.2015, Prague - Czech Republic.
- ii. Interfaces and 2D materials summer school, 31.08.2016 - 02.09.2016, Karpacz - Poland.
- iii. 3rd Condensed Matter summer school, 28.08.2017 - 30.08.2017, Zbaszyn - Poland.
- iv. 4th Condensed Matter Summer School - "Interfaces: from Spins to Nanomembranes", 29.08.2018 - 31.08.2018, Wroclaw - Poland.
- v. Italian School on Magnetism, 21.05.2018 - 25.05.2018, Turin - Italy (*Poster contribution*).

2. Symposia

- i. 1st Dresden Symposium on Electron Microscopy, 15.03.2017, Dresden - Germany.
- ii. The 53rd Symposium on Theoretical Chemistry (Big Data in Chemistry, from Molecular Structure to Condensed Phase), 21.08.2017 - 25.08.2017, Basel - Switzerland.

3. Meetings

- i. DFG-Frühjahrstagung (DPG-Spring Meeting), 19.03.2017 - 24.03.2017, Dresden - Germany (*Poster contribution*).
- ii. **The 67th Lindau Nobel Laureate Meeting** dedicated to Chemistry, 25.06.2017 – 30.06.2017, Lindau - Germany (*Visiting scientist*).

4. Conferences

- i. 7th Szeged International Workshop of Advances in Nanosciences, 12.10.2016 - 15.10.2016, Szeged - Hungary (*Poster contribution*).
- ii. The 9th International Conference on Advanced Nanomaterials (ANM-2017), 19.07.2017 - 21.07.2017, Aveiro - Portugal (*Oral contribution*).

- iii. The 4th edition of Nanotech France 2018 International Nanotech and Nanoscience Conference and Exhibition, 27.06.2018 - 29.06.2018, Paris - France (*Oral contribution*).
- iv. The 9th Palestinian International Chemistry Conference, 01.11-2019 - 02.11.2019, Bethlehem University, Bethlehem – Palestine (*Oral contribution*).

Teaching Experience

Experience in teaching chemistry courses (theoretical and practical) in different disciplines, such as:

Nanotechnology, Inorganic chemistry, Instrumental analysis, Analytical chemistry, Industrial chemistry, in addition to General chemistry.

Technical Experience

- Operating UV/Vis- and IR spectrophotometers
- Using scanning electron microscope (SEM) and data analysis
- Analysis data from transmission electron microscope (TEM)
- Performing thermogravimetric analysis (TGA)
- Using superconducting quantum interference device (SQUID) and data analysis
- Using powder X-ray diffractometer and data analysis