

Curriculum vitae

Afnan Al-Hunaiti

Assistant Professor

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Personal Information

Full name: Afnan H. A. Al-Hunaiti
Nationality: Jordanian / Finnish
Gender: Female
Spoken languages: Arabic, English

Research interests: Catalysis (inorganic complexes) and organocatalyst, Development of new oxidation catalysts, Biomimetic metabolic enzymes, and Environmental inorganic chemistry and atmospheric catalysis.

Academic Qualifications (*earned degrees were based on English language*)

Degree	Years	Field / Subject	Institution	Title of Thesis
Ph.D.	2008 – 2015	Catalysis oxidation-reduction (Inorganic Chemistry)	University of Helsinki, Department of Chemistry, Laboratory of Inorganic Chemistry, Helsinki, Finland	<i>Oxidation of Fine Chemicals by Iron Based and Metal-Free Catalysis</i>
M.Sc.	2007 – 2008	Organic Chemistry	University of Helsinki, Department of Chemistry, Laboratory of Organic Chemistry, Helsinki, Finland	<i>5,6-Disubstituted Pyrimidine Nucleosides synthesis</i>
B.Sc.	2003 – 2007	Organic Chemistry	University of Helsinki, Department of Chemistry, Laboratory of Organic Chemistry, Helsinki, Finland	
B.Sc.	1997 – 2002	Pharmacy	University of Jordan, Faculty of Pharmacy, Amman, Jordan	

Scientific Training

Period	Course / Workshop	Organizer	Location
2015 Oct 10	<i>In-situ</i> UV-vis	Agilant and University of Helsinki	Helsinki, Finland
2015 Feb 12 – 13	<i>In-situ</i> FT-IR	Agilant and University of Helsinki	Helsinki, Finland
2010 Sep 23 – 44	Agilant Company, HPLC Training Course	Agilant and University of Helsinki	Helsinki, Finland
2008 Oct 13 – 14	Perch software training course (NMR Data analysis software), CSC	CSC – IT Center for Science	Helsinki, Finland
2007 Mar 31 – Apr 1	Agilant Company, GC_MS Training Course	Agilant and University of Helsinki	Helsinki, Finland

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Posts, Titles and Experience

	Title / Position	Institution	Duties
2018 Feb – Current	Assistant Professor	University of Jordan School of Science Department of Chemistry Amman, Jordan	<i>Teaching</i> <i>Research</i> <i>Student supervision</i>
2016 Feb – 2018 Jan	Assistant Professor	University of Petra Faculty of Art and Sciences Department of Chemistry Amman, Jordan	<i>Teaching</i> <i>Research</i> <i>Student supervision</i>
2007 Jun – 2015 Dec	Research Assistant	University of Helsinki, Department of Chemistry, Laboratory of Inorganice Chemistry, Helsinki, Finland	<i>Research Projects</i>
2006 Jun – 2008 May	Research Assistant	University of Helsinki, Department of Chemistry, Laboratory of Organice Chemistry, Helsinki, Finland	<i>M.Sc. research</i>
2001 May – Sep	Research Assistant	University of Hashemite, Department of Allied Health Science Zarqa, Jordan	<i>Preparing laboratory samples, research projects</i>
2000 May – Sep	Research Assistant	University of Hashemite, Department of Allied Health Science Zarqa, Jordan	<i>Preparing laboratory samples, research projects</i>

Research and Scientific Visits

Period	Host	Financial Support
2010 Jul 19 – Aug 13	Technical University of Munich, Inorganic laboratory, Munich, Germany	DAAD
2010 Jun 6 – 11	University of Jyväskylä, Department of Chemistry, Laboratory of Organic Chemistry, Jyväskylä, Finland	University of Helsinki
2009 Apr 10 – 20	University of Jyväskylä, Department of Chemistry, Laboratory of Organic Chemistry, Jyväskylä, Finland	University of Helsinki

Instrumentations

I have gained long-term experience and attended training courses on:

- NMR maintenance, user and analyst.
- GC-MS maintenance, user and analyst.
- ESI-MS User and analyst.
- HPLC maintenance, user and analyst.

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Funded Research Projects

- An oxido acetate bridge mixed valent iron complexes as model of catechol dioxygenase and its aspects toward C-H activation. Afnan Al-Hunaiti. Petra University (5000 JD).
- Extracton, identification, characterization and biological activity of calotropi spocera. Nuha Sweidan (PI) and Afnan Al-Hunaiti Petra University (2200 JD).

List of Publications

Theses & Monographs

Ph.D. Thesis, 2015 (expected): “Oxidation of Fine Chemicals by Iron Based and Metal-Free Catalysis.” University of Helsinki, Department of Chemistry, Laboratory of Inorganic Chemistry, Helsinki, Finland.

M.Sc. Thesis, 2008: “5,6-Disubstituted Pyrimidine Nucleosides synthesis.” University of Helsinki, Department of Chemistry, Laboratory of Organic Chemistry, Helsinki, Finland.

Articles Published in Preparation / Submitted

Submitted

- [1] Dey D, Al-Maherat A, Arar S, **Al-Hunaiti A**, Maji M, Biswas B. Catalytic Fate of an Oxido-Aceto Bridged Tetra-Iron Cluster toward Catechol Dioxygenase and C-H Activation. New Journal of Chemistry 2017 (*submitted*).

Articles Published in Peer Reviewed Journals

2017

- [2] Aldamen M, **Al-Hunaiti A**, Eronen A, Mubarak M, Gerroll B, Peters A. $H_2Na_4(P_4W_6O_{34})Co_2Na_2(H_2O)_2 \cdot 26H_2O$: A New Carbon-Free Polyoxometalate Catalyst for Oxidation of Water. Journal of Cluster Science 2017 (*accepted*).
- [3] **Al-Hunaiti A**, Arar S, Täubel M, Wraith D, Maragkidou A, Hyvärinen A, Hussein T. Floor dust bacteria and fungi and their coexistence with PAHs in Jordanian indoor environments. Science of the Total Environment 2017, 601–602: 940–945.
- [4] Maragkidou A, Arar S, **Al-Hunaiti A**, Ma Y, Harrad S, Jaghbeir O, Faouri D, Hämeri K, Hussein T. Occupational Health Risk Assessment and Exposure to Floor Dust PAHs inside an Educational Building. Science of the Total Environment 2017, 579: 1050-1056.
- [5] Odeh I, Arar S, **Al-Hunaiti A**, Sa'aydeh H, Hammad G, Duplissy J, Vuollekoski H, Korpela A, Petäjä T, Kulmala M, Hussein T. Chemical Investigation and Quality of Urban Dew Collections with Dust Precipitates. Environmental Science and Pollution Research 2017, 24: 12312–12318.

2016

- [6] **Al-Hunaiti A**, Räisänen M, Repo T, Nordlander E. From DNA to catalysis: Thymine-acetate ligated non-heme iron(III) catalyst for oxidative activation of aliphatic C-H bonds. Chemical Communications 2016, 52: 2043-2046.
- [7] Maragkidou A, Ma Y, Jaghbeir O, Faouri D, Harrad S, **Al-Hunaiti A**, Arar S, Hämeri K, Hussein T. PAHs in Household Floor Dust Collected in Amman, Jordan. Journal of Chemical Engineering and Process Technology 2016, 7: 292.

2015

- [8] Das B, **Al-Hunaiti A**, Haukka M, Demshko S, Meyer S, Shteinman AA, Meyer F, Repo T, Nordlander E. Catalytic oxidation of alkanes and alkenes by H_2O_2 with a μ -oxido Diiron(III) complex as catalyst/catalyst precursor. European Journal of Inorganic Chemistry 2015, 21: 3590–3601.

2014

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- [9] **Al-Hunaiti A**, Räsänen M, Pihko P, Leskelä M, Repo T. Organocatalytic oxidation of secondary alcohols using 1,2-di(1-naphthyl)-1,2-ethanediamine (NEDA). *European Journal of Organic Chemistry* 2014, 28: 6141–6144. (*Cover Page*).
- [10] Räsänen M T, **Al-Hunaiti A**, Atosuo E, Kemell M, Leskelä M, Repo T. Mn(ii) acetate: An efficient and versatile oxidation catalyst for alcohols. *Catalysis Science and Technology* 2014, 4: 2564–2573.

2012

- [11] Biswas B, **Al-Hunaiti A**, Räsänen M T, Ansalone A, Leskelä M, Repo T, Chen Y-T, Tsai H-L, Naik A D, Railliet A P, Garcia Y, Ghosh R, Kole N. Efficient and Selective Oxidation of Primary and Secondary Alcohols Using an Iron(III)/Phenanthroline Complex: Structural Studies and Catalytic Activity. *European Journal of Inorganic Chemistry* 2012, 28: 4479–4485.

2011

- [12] Guo H, Kemell M, **Al-Hunaiti A**, Rautiainen S, Leskelä M, Repo T. Gold-palladium supported on porous steel fiber matrices: structured catalyst for benzyl alcohol oxidation and benzyl amine oxidation. *Catalysis Communications* 2011, 12: 1260–1264.
- [13] Guo H, Kemell M, **Al-Hunaiti A**, Rautiainen S, Leskelä M, Repo T. Gold Catalysis Outside Nanoscale: Bulk Gold Catalyzes the Aerobic Oxidation of p-Activated Alcohols. *ChemCatChem* 2011, 3: 1872–1875.

2010

- [14] **Al-Hunaiti A**, Niemi T, Sibaouih A, Pihko P, Leskelä M, Repo T. Solvent Free Oxidation of primary Alcohols and Diols Using Thymine Iron(III) Catalyst. *Journal of the Chemical Society, Chemical Communications* 2010, 46: 9050-9052.

2006

- [15] Akel H, **Hunaity A**. Growth, swarming and production of halo zone of different *Proteus mirabilis* strains isolated from Jordanian clinical specimens. *Journal of Medical Sciences* 2006, 6: 440-444.
- [16] Akel H, **Hunaity A**, Abdullah I, Doker N. Effect of high concentrations of sodium azide on the isolated thermophilic *Bacillus* phages in different temperatures and pH-values. *Journal of Biological Sciences* 2006, 6: 347-350.