



Fatemeh Khosravitarbar

Nationality: Iranian **Date of birth:** 22/09/1986 **Gender:** Female

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Work: Department of Biological & Environmental Science University of Gothenburg
Carl Skottsbergs gata 22B, 40530 Gothenburg (Sweden)

WORK EXPERIENCE

Post-doc researcher

Department of Biological & Environmental Science University of Gothenburg [20/10/2022 – Current]

City: Gothenburg

Country: Sweden

In project: H2 Photo-production using green microalgae

Post-doc researcher

Molecular Biomimetics, Department of Chemistry, Ångström Laboratory, Uppsala University [15/10/2020 – 15/10/2022]

City: Uppsala

Country: Sweden

In project: Photosynthetic Hydrogen production
Under supervision of Professor Fikret Mamedov

Sabbatical visitor

Plant Biochemistry and Biotechnology, Westfälische Wilhelms-Universität Münster [07/2017 – 07/2018]

City: Münster

Country: Germany

Including performing the main part of PhD project during which we established a new approach for microalgal H2 production based on safe and fast O2 consumption.

Research assistant

Industrial Microbial Biotechnology Department; Academic Center for Education, Culture and Research [06/2013 – 09/2013]

City: Mashhad

Country: Iran

In project:
Industrial applications and pharmaceutical effects of *Monascus purpureus*.

Research assistant

Industrial Fungal Biotechnology Department, Academic Center for Education, Culture and Research [10/2013 – 12/2014]

City: Mashhad

Country: Iran

in project:
Research in anticancer effects of *Agaricus fuingi*.

EDUCATION AND TRAINING

Ph.D in Plant physiology

Ferdowsi University of Mashhad (FUM) [10/2014 – 11/2019]

Address: Azadi Square, Mashhad (Iran)

Website: <http://um.ac.ir/>

PhD project: Developing a new approach for microalgal biohydrogen photoproduction, as an alternative for sulfur deficiency method, based on safe and fast oxygen consumption.

(A common project between Ferdowsi University of Mashhad & Muenster University of Germany).

Master of Science in plant physiology

Ferdowsi University of Mashhad [09/2009 – 09/2012]

City: Mashhad

Country: Iran

Plant physiology

Master thesis: Determination of the best method for extraction of phenolics and flavonoids from two *Achillea* species and assessment of their *in vitro* human skin wound healing efficacy.

Grade of Thesis: A

Bachelor in plant biology

Ferdowsi University of Mashhad [09/2005 – 07/2009]

City: Mashhad

Parental leave for my first kid (Amirali)

[09/2012 – 03/2013]

Parental leave for my second kid (Amirabbas)

[11/2019 – 10/2020]

LANGUAGE SKILLS

Mother tongue(s): **Persian**

Other language(s): **English**

PUBLICATIONS

Publications

Khosravitar F, Mamedov F, Partial inhibition of the inter-photosystem electron transfer at cytochrome b6f complex promotes periodic surges of hydrogen evolution in *Chlamydomonas reinhardtii*, International Journal of Hydrogen Energy, <https://doi.org/10.1016/j.ijhydene.2023.06.050>

Lari Z., Khosravitar F. (2020). *Different Trophic Modes for Algae Cultivation and Their Influences on Biomass and Lipid Production*. Journal of Systematic Bioscience & Engineering. 1(1): 16-26.

Khosravitar F. (2020) *Microalgal biohydrogen photoproduction: scaling up challenges and the ways forward*. Journal of Applied Phycology, 32, pages277–289.

Khosravitaqbar F., Hippler M. (2019). *A new approach for improving microalgal biohydrogen photoproduction based on safe & fast oxygen consumption*. International Journal of Hydrogen Energy, 44 (33): 17835-17844.

Khosravitabar F., Bahrami A. R., Abrishamchi P., Matin M. M., Ejtehad H. and Varaste Kojourian M. (2017). *Enhance d Cutaneous Wound Healing by the Leaf Extract of Achillea eriophora D.C. Using the In Vitro Scratch Assay*, Journal of Sciences, 28(4): 305 - 312.

Varaste Kojourian M., Abrishamchi P., Matin M. M., Asili J., Ejtehad H. and Khosravitabar F. (2017). *Antioxidant, cytotoxic and DNA protective properties of Achillea eriophora DC. and Achillea biebersteinii Afan. extracts: A comparative study.*, Avicenna Journal of Phytomedicine, 7(2): 157-168.

CONFERENCES AND SEMINARS

Conferences

Fatemeh Khosravitabar, Cornelia Spetea, Microalgae Immobilization for H₂ Production: Evaluating Technical Parameters and Identifying Optimal Conditions, The 16 Nordic Photosynthesis Congress and The 5 Nordic Algae Symposium, Umeå, Sweden 19-21 Jun 2023 (poster presentation).

Fatemeh Khosravitabar, Fikret Mamedov; Promoting sustainable H₂ production in Chlamydomonas reinhardtii through the partial inhibition of photosynthetic electron transport by DBMIB. Nordic Photosynthesis Conference. Gutenberg, Sweden, 5-8 Oct. 2021 (Oral presentation).

Khosravitabar F., Hippler M., Abrishamchi P. A step towards commercialization of biohydrogen photoproduction by green microalgae. International Conference of Biofuel & Bioenergy, Dubai, UAE, 19-20 Feb. 2020 (Oral presentation as keynote speaker)

Khosravitabar F. Hippler M. A new approach for microalgal biohydrogen photoproduction based on fast and safe oxygen consumption. 2 Iranian Conference on Phycology. Tehran, Iran 20-22 Sep. 2019 (Oral presentation).

Khosravitabar F., Bahrami A. R., Abrishamchi P., Matin M. M., Ejtehad H. and Varaste Kojourian M. Investigating the effects of the methanolic extract from the leaves of Achillea eriophora D. C. on human cutaneous wound healing in an in vitro cellular model. International conference in science and technology. Kuala Lumpur, Malaysia 14-16 Dec. 2015 (Oral presentation).

Saberi M., Rafe A., Khosravitabar F. Investigating Anticancer Properties of the Nanocarriers Loaded with Garlic Essential Oil, and Monascus Purpureus Extract on Breast Cancer Cell Line, In Vitro. 1st International Nastaran Cancer Symposium-2015. Mashhad, Iran 11-13 Sept. 2015 (poster presentation).

Khosravitabar F., Bahrami A. R., Abrishamchi P., Matin M. M., Ejtehad H. and Varaste Kojourian M. Extraction of flavonoids from Achillea eriophorea and evaluation of their cytotoxicity on human fibroblast cells. The 17th national & 5th International Biology Conference. Kerman, Iran. 4-6 Sept. 2012 (poster presentation).

Varasteh Kojourian M., Abrishamchi P., Matin M. M., Asili J., Ejtehad H., Khosravitabar F. In vitro evaluation of antioxidant activities of phenolic compounds from Achillea biebersteni. The 17th national & 5th International Biology Conference. Kerman, Iran. 4-6 Sept. 2012 (poster presentation).

Khosravitabar F., Bahrami A. R., Abrishamchi P., Matin M. M., Ejtehad H. and Varaste Kojourian M. Methanolic extract from Achillea eriophora L. leaves induces cell migration and proliferation in human fibroblast. National congress of medicinal plants. kish, Iran, 20-22 May. 2012 (Oral presentation).

Varaste Kojourian M., Abrishamchi P., Matin M. M., Asili J., Ejtehad H. and Khosravitabar F. Extracion of phenolic compounds from Achillea eriophora and evaluation of their antioxidant activities in vitro. National congress of medicinal plants. kish, Iran, 20-22 May. 2012 (poster presentation).

RECOMMENDATIONS

Prof. Cornelia Spetea Wiklund

professor in
Department of Biological and Environmental Science
Gothenburg University
40530, Gothenburg, Sweden
cornelia.spetea.wiklund@bioenv.gu.se

Prof. Fikret Mamedov

Professor in
Molecular Biomimetics
Department of Chemistry –
Ångström Laboratory, Box 523
Uppsala University
751 20, Uppsala, Sweden
Email: fikret.mamedov@kemi.uu.se

Prof. Michael Hippler

The chair of plant biochemistry and biotechnology,
Westfälische Wilhelms-Universität Münster (WWU Münster).
Email: mhippler@uni-muenster.de

Prof. Ahmad Reza Bahrami (Professor in molecular biotechnology)

Head of the Institute
Institute of Biotechnology, Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran
E-mail: ar-bahrami@um.ac.ir
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Prof. Hamid Ejtehadi (Professor in plant ecology)

Educational Assistant at Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran.
Email: hejtehadi @um.ac.ir

Prof. Maryam Moghaddam-Matin (Professor in molecular biotechnology)

Department of Biology and Institute of Biotechnology, Faculty of Sciences, Ferdowsi University of Mashhad, Mashhad, Iran
E-mail: matin@um.ac.ir

HONOURS AND AWARDS

Scholarship for Post-doc project in Gothenburg University

Olle Engkvist Foundation [10/2022]

Scholarship for postdoc researcher in Uppsala University

Carl Tryggers Foundation [10/2020]

Science travel grant

Liljewalchs foundation, Sweden [2020]

Fellowship for sabbatical visit during PhD project

Iran's National Elites Foundation [2017]

PROFESSIONAL SKILLS

Experimental skills

Microorganism cultivation and growth evaluation

Microalgae cultivation and its optimization

Cell immobilization techniques

In vitro & in vivo methods of hydrogen production studies

Physiological & biochemical analyses of cell cultures such as, antioxidant tests, starch assessment, EPR, thermoluminance and fluorescence analysis.

Biotechnological and molecular studies like DNA & RNA extraction, PCR & RT-PCR, immunoblotting analysis.

Research and job-related skills

Generating research questions through literature overview

Planning laboratory studies and designing experiments to address research challenges

Seeing the big picture goal, maintaining the records and following through the plan

Data analysis and results dissemination

Writing research papers and edit/proofread

Public scientific presentation

Good ability of problem solving

Critical thinking and flexibility

Having good teamwork skills and working well individually

PERSONAL STATEMENT

A dedicated and motivated research fellow in the field of bioprocess and biotechnology

with more focusing on industrial applications of microalgae in particular microalgal hydrogen production.
