

Curriculum Vitae

Personal

Name: Amir Hatami(e)

E-mail: amirhatchem@yahoo.com,
amir.hatami@iasbs.ac.ir

ORCID : <https://orcid.org/0000-0002-7085-893X>

GOOGIE SCHOLAR:

https://scholar.google.se/citations?hl=en&user=YagBikwAAAAJ&view_op=list_works&sortby=pubdate



▪ EDUCATION and Academic background

(2024- now) **Institute for Advanced Studies in Basic Sciences- Iran.**

Assistant professor

Subject: Nano-Microelectrochemistry, Microfabrication, Nano-Microelectrodes, Electroanalysis in Bio-systems, Nano-Conductive Inks and Flexible Electronic and Bioelectronics.

2022-2023) University of Gothenburg, Institute of Neuroscience and Physiology. Sweden.

(2017-now) University of Gothenburg, Department of Chemistry and Molecular Biology. Sweden.

Research Associate : supervisors: Prof. A. Ewing and Prof. P. Rorsman

Subject: Nano-Microscales Electrodes, Single cell analysis in Diabetes and Neuroscience.

➤ **(2016-2017) Sharif University of Technology**

Postdoctoral Fellow / Supervisor: Prof. A. Simchi

Subject: Synthesis of 3D and 2D carbon nanostructures and their applications in sensing.

➤ **(2014-2014) Biosensors and Bioelectronics Centre, Linköping University, Sweden**

Visiting Researcher (4 months)

Supervisors: Prof. Anthony P. Turner and Prof. Magnus Willander

Subject: Textile and flexible sensors

➤ **(2010-2014) Ph.D of Analytical Chemistry .Shahid Chamran University.**

➤ Supervisor: Prof. B. Zargar and Prof. H. Parham

Subject: Optical plasmonic and electrochemical sensors for drug analysis

■ Honors and Grants

- | | |
|------|--|
| 2024 | Rising Star in measurement science (Selected by ACS Board Measurement) |
| 2023 | Top 2% researcher (highly cited) based on Scopus and Stanford Uni. Platform in 2021 and 2022. |
| 2023 | Travel grant Sahlgrenska-GU. Awarded by Head of Sahlgrenska-GU university. |
| 2021 | The best reviewer award of “Biosensors” journal at 2021-MDPI publications |
| 2019 | Marie Curie Research Grant- The European Union-EU. 2019. Supported by VINNOVA |
| 2019 | Sensor award for young researchers from MDPI Publications-Switzerland. |
| 2018 | Travel grant GU from Gothenburg university- Sweden. |
| 2018 | Wallenberg postdoctoral scholarship – Sweden. |
| 2018 | The best research proposal, “microfluidic based sensor prostate cancer detection” in a national Competition-Iran |

- 2016 Postdoctoral Research Fellowship of Iran Elite Foundation, Iran.
2010-2014 Full national scholarship, PhD studies- Iran.
2013 Selected as the best Ph.D. student at Shahid Chamran University- Iran.
2012 Selected as the best Ph.D. thesis at Shahid Chamran University- Iran.

▪ Editor and Journal activates

- 1 **Topical Advisory Panel** of “Biosensors” journal (Q1, IF: 5.4).
- 2 **Guest Editor** of several issues of “Biosensors” journal (Q1, IF: 5.4).
- 3 **Editor** of “*Journal of Nanotechnology in Diagnosis and Treatment*” (IF: -)
4. **Guest Editor** of “*International Journal of Molecular Sciences*” journal (Q1, IF: 6.5).
5. **Editor** of “*Characterization and Application of Nanomaterials*” (IF: -)

▪ Publications

▪ Book and Book Chapter

1. Solutions manual for Electrochemistry. Amir Hatamie. ISBN:978-964-975-167-2, Tehran –NOPARDAZAN press (2012), in Persian, (for master and undergraduate students)

2. Book Chapter (2023, Springer)

Book title: Handbook of Nano bioelectrochemistry: Application in Devices and Biomolecular Sensing.

Chapter title: Nanoscale electrochemical sensors for intracellular measurement at single cell

Amir Hatamie, X. Zhang, Pieter Oomen, Andrew Ewing.

3. Book Chapter (2023, Elsevier)

Book title: 2D Materials-Based Electrochemical Sensors.

Chapter title: 2D hexagonal BN and its hybrid materials for electrochemical sensing

S. Angizil, M. Hasanzadeh Azar, A. Hatamie, A. Simchi

Review papers

► Advancements in Brain Research: The In Vivo/In Vitro Electrochemical Detection of Neurochemicals."

Xu, Xiaoxuan, Yimei Zuo, Shu Chen, Amir Hatami, and Hui Gu.

Biosensors 14, no. 3 (2024): 125.

► Advances in nano/microscale electrochemical sensors and biosensors for analysis of single vesicles, a key nanoscale organelle in cellular communication.

Amir Hatamie, Xiulan He, Xin-Wei Zhang, Pieter E. Oomen, and A. G. Ewing

Biosensors and Bioelectronics 220(2023) 114899 (IF: 12.54)

► Challenges and advances of hydrogel-based wearable electrochemical biosensors for real-time monitoring of biofluids: from lab to market. A Review.

Chenani, Hossein, Mohsen Saeidi, MahsaSadat Adel Rastkhiz, Nafiseh Bolghanabadi, Amir Hossein Aghaii, Mina Orouji, Amir Hatamie, and Abdolreza Simchi.

Analytical Chemistry 96, no. 20 (2024): 8160-8183.

► Electrochemical Wearable Biosensors and Bioelectronic Devices Based on Hydrogels: Mechanical Properties and Electrochemical Behaviour. *M. Saeidi, H. Chenani, M. Orouji, M. Adel Rastkhiz, N. Bolghanabadi, S. Vakili, Z. Mohamadnia, A. Hatamie, and A. Simchi.*

Biosensors 13, no. 8 (2023): 823. (IF: 5.4)

► Two-Dimensional Boron Nitride Quantum Dots: Synthesis, Properties, and Applications
*S. Angizi, S. Ali Ahmad Alem, M. Hassanzade Azar, **A. Hatamie**, A. Pakdel, A. Simchi*
Progress in Materials Science. (2021) (IF: 37.11)

► Nano electrochemical analysis inside a single living cell.
*X. Zhang, **A. Hatamie**, A. Ewing* (Note: Both authors have same contribution).
Current Opinion in Electrochemistry 2020(22)94–101. (IF:7.2)

► Textile based chemical and physical sensors for healthcare monitoring,
***A. Hatamie**, S. Angizi, S. Kumar, C. M. Pandey, A. Simchi, M. Willander, B. D Malhotra,*
Journal of The Electrochemical Society (2020)167, 3754. (IF:4.3)

► Nanomaterial-Modified Conducting Paper: Fabrication, Properties, and Emerging Biomedical Applications.
*K., Saurabh, C. M. Pandey, **A. Hatamie**, A. Simchi, M. Willander, and B. D. Malhotra.*
Global Challenges (2019) 1900041(IF:5.1)

► Towards the Two-Dimensional Hexagonal Boron Nitride (2D h-BN) Electrochemical Sensing Platforms
*Angizi, S., Khalaj, M., Alem, S. A. A., Pakdel, A., Willander, M., **Hatamie**, (Correspond), Simchi, A.*
Journal of The Electrochemical Society, 167 (2020) 126513. (IF:4.3)

Research papers (Last 10 papers):

■ Integration of Ultra-Thin Bubble Walls and Electrochemistry: Innovation in Micro-Sensing for Forensic Nitrite Detection and Microscale Metallic Film Deposition. *N.Fahemi , S.Angizi, **A.Hatamie***
Analytical chemistry, 96, no. 7 (2024): 2920-2928. (I.F.: 6.7)

■ Advances in nano/microscale electrochemical sensors and biosensors for analysis of single vesicles, a key nanoscale organelle in cellular communication. ***Amir Hatamie**, Xiulan He, Xin-Wei Zhang, Pieter E. Oomen, and A. G. Ewing,*
Biosensors and Bioelectronics 220(2023) 114899 (IF: 12.54)

■ Direct Acquisition of the Gap Height of Biological Tissue-Electronic Chemical Sensor Interfaces. *X. Zhang, **Amir Hatamie**, and A. G. Ewing.*
Angewandte Chemie 134.43 (2022): e202210224. (I.F.: 16.8)

■ Nanoscale amperometric monitoring shows the pancreatic beta cells release only a small fraction of vesicular serotonin content during exocytosis. ***A. Hatamie**, L. Ren, H. Dou, N. Gandasi, P. Rorsman, A. Ewing.*
Angewandte Chemie- 2021, 60, 7593–7596 (I.F.: 16.8)

■ Vesicle Impact Electrochemical Cytometry Reveals Carbon Nanotubes Can Cause Fusion of Intracellular Vesicles.
***A. Hatamie**, L. Ren, X. Zhang, A. Ewing.*
Analytical chemistry, 2021, 13161-13168. (I.F.: 8.00)

■ Simultaneous Quantification of Vesicle Size and Catecholamine Content by Resistive Pulses in Nanopores and Vesicle Impact Electrochemical Cytometry. *X. Zhang, **A. Hatamie**, and A. G. Ewing.*
Journal of American Chemical Society, 9, (2020) 142, 4093-4097 (I.F.: 15)

■ Electrosynthesis of yttrium hexacyanoferrate microflowers on freestanding three-dimensional graphene substrate as a highly selective electrode for ascorbic acid detection. ***A. Hatamie**, R. Rahmatia, E. Rezvani, S.Angizi, A. Simchi*
ACS Applied Nano Materials, 2019, 2, 2212–2221 (I.F.: 5.05)

■ Simultaneous quantification of vesicle size and catecholamine content by resistive pulses in nanopores and vesicle impact electrochemical cytometry. *X.W. Zhang, A. Hatamie, A. G. Ewing* **Journal of the American Chemical Society** 142, 9 (2020): 4093-4097. (I.F.: 15)

■ Synthesis, First-Principle Simulation, and Application of Three-Dimensional Ceria Nanoparticles/Graphene Nanocomposite for Non-Enzymatic Hydrogen Peroxide Detection. *E. Rezvani, A. Hatamie, M. Berahman, M. Simchi, S. Angizi, R. Rahmati, James Kennedy, and A. Simchi.* **Journal of The Electrochemical Society** 166, (2019): H3167-H3174. (I.F.: 4.3)

■ Fast and ultra-sensitive voltammetric detection of lead ions by two-dimensional graphitic carbon nitride (g-C₃N₄) nanolayers as glassy carbon electrode modifier. *A. Hatamie, P. Jalilian, E. Rezvani, A. Kakavand, and A. Simchi* **Measurement** 134 (2019) 679-687. (I.F.: 3.9)

■ Electrocatalytic oxidation of ethanol on flexible three-dimensional interconnected nickel/gold composite foams in alkaline media. *A. Hatamie, E. Rezvani, A. S. Rasouli, A. Simchi.* **Electroanalysis**, 30, 2018, 1–9. (I.F.: 3.00)

■ Mechanochemical Green Synthesis of Exfoliated Edge-Functionalized Boron Nitride Quantum Dots: Application to Vitamin C Sensing through Hybridization with Gold Electrodes
S. Angizi, A. Hatamie, H. Ghanbari, and A. Simchi. **ACS Applied Materials & Interfaces**, 10 (2018) 28819 (I.F.: 10.33)

• Conferences: Oral & Poster

INVITED SPEAKER (Keynote speaker)

2021 4th International Conference on Biosensors and Bioelectronics, May 21-22, 2021. **Paris, France.**

2021 1st International Electronic Conference on Chemical Sensors and Analytical Chemistry, June 1-7, 2021 **Switzerland.**

2023 3st International Electronic Conference on Chemical Sensors and Analytical Chemistry, May 1-7, 2023 **Switzerland.**

Oral Presentations

2020-6th International Conference on Nanostructures (ICNS6)

2016-Evaluation of magnetic nano ferrofluid for surface water treatment, 6th International Conference on Nanostructures (ICNS6) 7-10 March Kish Island, Iran.

2008 -The use of Iron oxide magnetic nanoparticles (ferro fluid) as new coagulant for water and wastewater treatment, 2nd International congress on Nanoscience & Nanotechnology, -university of Tabriz – Iran.

Membership of scientific societies

2018- Present Member of the Swedish chemical society.

2010 – 2018 Member of the Iranian Society of Chemistry.

2018– 2022 Member of the International Electrochemical Society (ISE).

▪ Peer Reviewing for Scientific Journals

ACS publications: *ACS Sustainable Chemistry & Engineering /ACS Applied Materials & Interfaces.*

Elsevier publications: *Biosensors and Bioelectronics, Sensors and actuators B, Talanta, Measurement. Journal of Food Composition and Analysis.*

Wiley publications: *Electroanalysis, ChemistrySelect,*

MDPI publications: *Sensors, Biosensors, Micromachines, and Chemosensors.*