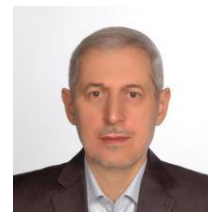


**Brief Resume**

(July 2, 2023)

# **Mir F. Mousavi, Ph.D**

(Mir Fazlollah Mousavikozehkouan)



## Current **Research Interests:**

Novel nano-structured materials: synthesis, fundamental studies, and investigation of their applications in electrochemical energy conversion and storage systems.

## Selected **Honors and Awards:**

- 2006 **Leading Scientist** (in the OIC Member States)
- 2006 **Distinguished Professor in Chemistry**, at TMU
- 2007 **Most Cited ISI Scientist** (top 1%, recognized by ESI)
- 2008 **First-ranked Laureate in Modern Technology** in the 14<sup>th</sup> annual Razi International Research Festival on Medical Sciences
- 2008 **Modern Technology ISESCO Award**
- 2011 **Distinguish Professor of Analytical Chemistry**, granted by the Iranian Chemical Society (ICS)
- 2013-14 **Top Cited Author of Electrochimica Acta**, granted by the International Society of Electrochemistry (ISE)
- 2019 **National Distinguished Professor**
- 2020 **Distinguish Professor of Electrochemistry**,  
granted by the Iranian Electrochemical Society (IECS)
- 2019-22 **Scientific Elite**  
granted by the Iranian Science Elites Federation (ISEF)
- 2022 **Most Cited ISI Scientist** (top 1%, recognized by ESI)

## Selected Recent Publications

No.	Authors	Title	J. Name	Date	Note
1	Moloudi, M.; Noori, A.; Rahmanifar, M. S.; Shabangoli, Y.; El-Kady, M. F.; Mohamed, N. B.; Kaner, R. B.; Mousavi M. F.	<b>Layered Double Hydroxide Templated Synthesis of Amorphous NiCoFeB as a Multifunctional Electrocatalyst for Overall Water Splitting and Rechargeable Zinc–Air Batteries</b>	<a href="#"><i>Adv. Energy Mater.</i></a>	2023, 2203002	IF=29.69 (Front Cover)
2	Shahbazi Farahani, F.; Rahmanifar, M. S.; Noori, A.; El-Kady, M. F.; Hassani, N.; Neek-Amal, M.; Kaner, R. B.; Mousavi M. F.	<b>Trilayer Metal-Organic Frameworks as Multifunctional Electrocatalysts for Energy Conversion and Storage Applications</b>	<a href="#"><i>J. Am. Chem. Soc.</i></a>	2022, 144, 3411-3428	IF=16.38 (Highly cited)
3	Nazari, M.; Noori, A.; Rahmanifar, M. S.; El-Kady, M. F.; Hassani, N.; Neek-Amal, M.; Kaner, R. B.; Mousavi M. F.	<b>Phase-Dependent Energy Storage Performance of the Ni<sub>x</sub>Se<sub>y</sub> Polymorphs for Supercapacitor-Battery Hybrid Devices</b>	<a href="#"><i>ACS Appl. Mater. Interfaces</i></a>	2022, 14, 50900– 50912	IF=10.38
4	Khodayar, N.; Noori, A.; Rahmanifar, M. S.; Shabangoli, Y.; Baghervand, A.; El-Kady, M. F.; Hassani, N.; Chang, X.; Neek-Amal, M.; Kaner, R. B.; Mousavi M. F.	<b>Super-Fast and Super-Long-Life Rechargeable Zinc Battery</b>	<a href="#"><i>Adv. Energy Mater.</i></a>	2022, 12, 2202784	IF=29.69
5	Khodabandehlo, A.; Noori, A.; Rahmanifar, M. S.; El-Kady, M. F.; Kaner, R. B.; Mousavi M. F.	<b>Laser Scribed Graphene–Polyaniline Microsupercapacitor for Internet-of-Things Applications</b>	<a href="#"><i>Adv. Funct. Mater.</i></a>	2022, 32, 2204555	IF=19.92
6	Zhang, T.; Li, C.; Wang, F.; Noori, A.; Mousavi M. F.; Xia X.; Zhang, Y.	<b>Recent Advances in Carbon Anodes for Sodium-Ion Batteries</b>	<a href="#"><i>Chem. Record</i></a>	2022 e202200083	IF=6.90
7	Dianat, N.; Rahmanifar, M. S.; Noori, A.; El-Kady, M. F.; Chang, X.; Kaner, R. B.; Mousavi M. F.	<b>Polyaniline-Lignin Interpenetrating Network for Supercapacitive Energy Storage</b>	<a href="#"><i>Nano Lett.</i></a>	2021, 21, 9485-9493	IF=12.26
8	Nazari, M.; Rahmanifar, M. S.; Noori, A.; Li, W.; Zhang, C.; Mousavi M. F.	<b>The ordered mesoporous carbon nitride-graphene aerogel nanocomposite for high-performance supercapacitors</b>	<a href="#"><i>J. Power Sources</i></a>	2021, 494, 229741	IF=9.79
9	Moloudi, M.; Rahmanifar, M. S.; Noori, A.; Chang, X.; Kaner, R. B.; Mousavi M. F.	<b>Bioinspired polydopamine supported on oxygen-functionalized carbon cloth as a high-performance 1.2 V aqueous symmetric metal-free supercapacitor</b>	<a href="#"><i>J. Mater. Chem. A</i></a>	2021, 9, 7712-7725	IF=14.51
10	Shabangoli, Y.; El-Kady, M. F.; Nazari, M.; Dadashpour, E.; Noori, A.; Rahmanifar, M. S.; Lv, X.; Zhang, C.; Kaner, R. B.; Mousavi M. F.	<b>Exploration of Advanced Electrode Materials for Approaching High-Performance Nickel-Based Superbatteries</b>	<a href="#"><i>Small</i></a>	2020, 16, 2001340	IF=15.15
11	Shabangoli, Y.; Rahmanifar, M. S.; Noori, A.; El-Kady, M. F.; Kaner, R. B.; Mousavi, M. F.	<b>Nile Blue Functionalized Graphene Aerogel as a Pseudocapacitive Negative Electrode Material across the Full pH Range</b>	<a href="#"><i>ACS Nano</i></a>	2019, 13, 12567-12576	IF=18.02
12	Dai, Y.; Li, W.; Chen, Z.; Zhu, X.; Liu, J.; Zhao, R.; Wright, D. S.; Noori, A.; Mousavi M. F.; Zhang, C.	<b>An air-stable electrochromic conjugated microporous polymer as an emerging electrode material for hybrid energy storage systems</b>	<a href="#"><i>J. Mater. Chem. A</i></a>	2019, 7, 16397- 16405	IF=14.51

13	Noori, A.; El-Kady, M. F.; Rahmanifar, M. S.; Kaner, R.B.; <b>Mousavi M. F.</b>	<b>Towards establishing standard performance metrics for batteries, supercapacitors and beyond</b>	<a href="#"><i>Chem. Soc. Rev.</i></a>	<b>2019</b> , 48, 1272-1341	IF=60.61, (Citation >700, Highly cited, Back cover)
14	Rahmanifar, M. S.; Hemmati, M.; Noori, A.; El-Kady, M. F.; <b>Mousavi M. F.</b> ; Kaner, R. B.	<b>Asymmetric supercapacitors: An alternative to activated carbon negative electrodes based on earth abundant elements</b>	<a href="#"><i>Mater. Today Energy</i></a>	<b>2019</b> , 12, 26-36.	IF=9.25
15	Shabangoli, Y.; Rahmanifar, M. S.; El-Kady, M. F.; Noori, A.; <b>Mousavi M. F.</b> ; Kaner, R. B.	<b>Thionine Functionalized 3D Graphene Aerogel: Combining Simplicity and Efficiency in Fabrication of a Metal-Free Redox Supercapacitor</b>	<a href="#"><i>Adv. Energy Mater.</i></a>	<b>2018</b> , 1802869	IF=29.69
16	Hashemi, M., Rahmanifar, M. S., El- Kady, M. F., Noori, A., <b>Mousavi M. F.</b> , Kaner, R. B.	<b>The use of an electrocatalytic redox electrolyte for pushing the energy density boundary of a flexible polyaniline electrode to a new limit</b>	<a href="#"><i>Nano Energy</i></a>	<b>2018</b> , 44, 489-498	IF=19.06
17	Shabangoli, Y., Rahmanifar, M. S., El-Kady, M. F., Noori, A., <b>Mousavi, M. F.</b> , Kaner, R. B.	<b>An integrated electrochemical device based on earth-abundant metals for both energy storage and conversion</b>	<a href="#"><i>Energy Storage Mater.</i></a>	<b>2018</b> , 11, 282-293	IF =20.83, (Highly cited in Nat. Mid. East)
18	Rahmanifar, Mohammad S.; Hesari, Hooman; Noori, Abolhassan; Masoomi, Mohammad Yaser; Morsali, Ali; <b>Mousavi M. F.</b>	<b>A dual Ni/Co-MOF-reduced graphene oxide nanocomposite as a high performance supercapacitor electrode material</b>	<a href="#"><i>Electrochim. Acta</i></a>	<b>2018</b> , 275, 76-86	IF=7.33, Citation >230, (Highly cited)
19	Wang, L. J.; El-Kady, M. F.; Dubin, S.; Hwang, J. Y.; Shao, Y.; Marsh, K.; McVerry, B.; Kowal, M. D.; <b>Mousavi M. F.</b> ; Kaner, R. B.	<b>Flash Converted Graphene for Ultra-High Power Supercapacitors</b>	<a href="#"><i>Adv. Energy Mater.</i></a>	<b>2015</b> , 5, 1500786	IF=29.69
20	Shao, Y.; El-Kady, M. F.; Wang, L. J.; Zhang, Q.; Li, Y.; Wang, H.; <b>Mousavi M. F.</b> ; Kaner, R. B.	<b>Graphene-based materials for flexible supercapacitors</b>	<a href="#"><i>Chem. Soc. Rev.</i></a>	<b>2015</b> , 44,3639- 3665	IF=60.61, Citation >1000 (Highly cited)
21	El-Kady, M. F.; Ihns, M.; Li, M.; Hwang, J. Y.; <b>Mousavi M. F.</b> ; Chaney, L.; Lech, A. T.; Kaner, R. B.	<b>Engineering three-dimensional hybrid supercapacitors and microsupercapacitors for high-performance integrated energy storage</b>	<a href="#"><i>PNAS</i></a>	<b>2015</b> , 112, 4233-4238	IF=12.77, Citation ~570, (Highly cited)
22	Pendashteh, A. Moosavifard, S. E.; Rahmanifar, M. S.; Wang, Y.; El-Kady, M. F.; Kaner, R. B.; <b>Mousavi M. F.</b>	<b>Highly Ordered Mesoporous CuCo<sub>2</sub>O<sub>4</sub> Nanowires, a Promising Solution for High-Performance Supercapacitors</b>	<a href="#"><i>Chem. Mater.</i></a>	<b>2015</b> , 27, 3919- 3926	IF=10.50, Citation ~360, (Highly cited)
23	Ilkhani, H.; Sarparast, M.; Noori, A.; Bathaie, S. Z.; <b>Mousavi M. F.</b>	<b>Electrochemical aptamer/antibody based sandwich immunosensor for the detection of EGFR, a cancer biomarker, using gold nanoparticles as a signaling probe</b>	<a href="#"><i>Biosens. Bioelectron.</i></a>	<b>2015</b> , 74, 491-497	IF=11.44, Citation ~150
24	Pendashteh, A.; Rahmanifar, M. S.; Kaner, R. B.; <b>Mousavi M. F.</b>	<b>Facile synthesis of nanostructured CuCo<sub>2</sub>O<sub>4</sub> as a novel electrode material for high-rate supercapacitors</b>	<a href="#"><i>Chem. Commun.</i></a>	<b>2014</b> , 50, 1972-5	IF=6.22, Citation ~300, (Highly cited)

25	Pendashteh, A.; Mousavi M. F.; Rahmanifar, M. S.	<b>Fabrication of anchored copper oxide nanoparticles on graphene oxide nanosheets via an electrostatic coprecipitation and its application as supercapacitor</b>	<a href="#"><i>Electrochim. Acta</i></a>	<b>2013</b> , 88, 347-357	IF=7.33, Citation ~ 400, (Highly cited)
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## Selected Recent Talks

Item No.	Title	Date	Conference/place	Note
1	Design and fabrication of electrochemical nano-biosensors for investigation of the interaction of some saffron ingredients with DNA	Jul 27–Aug 1, 2017	<a href="#"><i>China-Iran conference on Saffron and natural products: Zhejiang, China</i></a>	Keynote speaker
2	A quest for nanostructured materials for electrochemical energy storage	Feb 27–Mar 1, 2018	<a href="#"><i>7th International Conference on Nanostructures (ICNS7); Tehran, Iran</i></a>	Invited speaker
3	Electrochemical energy storage: A survey of our research group activities over the past two decades	Jul 17-19, 2018	<a href="#"><i>20th Iranian Chemistry Congress; Mashhad, Iran</i></a>	Keynote speaker
4	Electrochemical energy storage: Challenges and opportunities	Sep 3-5, 2018	<a href="#"><i>25th Iranian Seminar of Analytical Chemistry; Tabriz, Iran</i></a>	Keynote speaker
5	Nanomaterials in the sectors of electrochemical energy storage	Sep 26-28, 2018	<a href="#"><i>7th International Congress on Nanoscience and Nanotechnology (ICNN7); Tehran, Iran</i></a>	Keynote speaker
6	Nanostructured materials for the fabrication of the next generation electrochemical energy storage and conversion devices	Oct 30 - Nov2, 2018	<a href="#"><i>International Conference on Emerging Advanced Nanomaterials (ICEAN) 2018; Newcastle, Australia</i></a>	Invited speaker
7	Green synthesis of the BSA-templated metal nanoclusters and investigation of their fabrication in targeted drug delivery	Nov 29-30, 2018	<a href="#"><i>4th Mogan Mountain International Summit on Green Pharmaceuticals; Hangzhou, China</i></a>	Keynote speaker
8	Synthesis of Nanostructured Materials for Sustainable Energy Storage	Aug 4-9, 2019	<a href="#"><i>70th Annual ISE Meeting (ISE70) Durban, South Africa</i></a>	Invited speaker
9	Utilization of the nanostructured materials in the electrochemical energy storage systems	Aug 11-14, 2019	<a href="#"><i>5th International Symposium on Electrochemistry Cape Town, South Africa</i></a>	Invited speaker

10	<b>Nanostructured Materials in Electrochemical Energy Storage Systems</b>	Sep 19, 2019	<u>Department of Applied Chemistry</u> <u>University of Science and Technology of China (USTC), Hefei,</u> <u>Anhui, China</u>	Invited speaker
11	<b>Electrochemical capacitors: from materials design to device fabrication</b>	Oct 20-21, 2020	<u>15th Annual Electrochemistry Seminar of Iran (ECSI2020),</u> <u>TMU, Tehran, Iran</u>	Plenary speaker
12	<b>Supercapacitive Energy Storage with a focus on The Negative Electrode Materials</b>	Nov 18-20, 2020	<u>8<sup>th</sup> International Conference on Nanostructures (ICNS8), Sharif</u> <u>University of Technology,</u> <u>Tehran, Iran</u>	Invited speaker
13	<b>Electrochemical Energy Storage for Sustaining a Healthy Planet</b>	Jul 26-28, 2022	<u>21st ICS international chemistry congress,</u> <u>Tabriz, Iran</u>	Keynote speaker
14	<b>Development of Advanced Materials for Supercapacitors, Batteries and Water Splitting for Contributing to a Better World</b>	Aug 23-25, 2022	<u>27th Iranian Seminar of Analytical Chemistry (ISAC27),</u> <u>Zanjan, Iran</u>	Plenary speaker
15	<b>Design and Synthesis of Advanced Nanostructured Energy Storage Materials Towards a Zero-Emission Future</b>	Oct 17-21, 2022	<u>4th International Conference on Emerging Advanced</u> <u>Nanomaterials (ICEAN 2022),</u> <u>Newcastle, Australia</u>	Keynote speaker

## Output Summary:

**167 ISI papers, >10 highly cited, h-index = 56** (Google Scholar).

**>300 Seminars** (Plenary, Keynote, and invited speaker: over 50 times).

**5 Patents** (3 national, 2 USA).

**1 Book** (Mousavi, M. F.; Ghasemi, S. Sonochemistry: a suitable method for synthesis of nano-structured materials. Nova Science Publishers: Hauppauge, N.Y., 2010.) **Invited.**

**1 Book Chapter** (in Encyclopedia of Sensors (10-Volume Set), by Craig A. Grimes, Elizabeth C. Dickey, and Michael V. Pishko. American Scientific Publishers; 1 edition (December 20, 2006). **Invited.**

## International Cooperation:

1. Department of Chemistry and Biochemistry, Department of Materials Science and Engineering, and California NanoSystems Institute, University of California, Los Angeles (UCLA), CA 90095, USA. **Prof. Richard B. Kaner** (Since 2013)
2. State Key Laboratory Breeding Base of Green Chemistry Synthesis Technology, College of Chemical Engineering, **Zhejiang University of Technology**, Chaowang Road, Hangzhou 310014, P. R. China. **Prof. Cheng Zhang** (Since 2017)
3. State Key Laboratory of Silicon Materials, Key Laboratory of Advanced Materials and Applications for Batteries of Zhejiang Province, School of Materials Science & Engineering, **Zhejiang University**, Hangzhou 310027, China; College of Materials Science & Engineering, Zhejiang University of Technology, Hangzhou 310014, China. **Prof. Xinhui Xia** (Since 2022)

## Selected Positions and Memberships:

1. Editorial Board:
  - a. **International Journal of Nanoscience and Nanotechnology (IJNN)**  
(Publisher: Iranian Nano Technology Society, INS)
  - b. **Scientia Iranica, Transactions of Nanotechnology**  
(Publisher: Elsevier)
2. Elected Regional Representative for the **International Society of Electrochemistry**  
(1<sup>st</sup> term: 2007-2009; 2<sup>nd</sup> term: 2010-2012)
3. Reviewer of more than 50 Scientific Journals, indexed in ISI
4. Member of:
  - American Chemical Society (ACS)**
  - Iranian Chemical Society (ICS)**
  - Iranian Nanotechnology Society (INS)**
  - International Society of Electrochemistry (ISE)**
5. **Visiting Professor at UCLA**, Department of Chemistry and Biochemistry (2013-2014)

6. Appointed as **the Honored Professor of Overseas Expertise** Introduction Center (Zhejiang University of Technology, China) from 2018 to 2022.

## Research Group Members:

1. Research Assistant: 1
2. PostDoc Researchers: 2
3. Ph.D. Students: 7
4. M.Sc. Students: 5

## Research Group Alumni:

### **M.Sc. graduated: 51**

- |    |                              |    |                                |
|----|------------------------------|----|--------------------------------|
| 1  | Mohammad Reza Almasian, 1995 | 2  | Mohammad Ali Firoozzare, 1995  |
| 3  | Reza Noorhashemi, 1995       | 4  | Siavash Nouroozi, 1995         |
| 5  | Ali Reza Ghasvand, 1995      | 6  | Nahid Sarlack, 1995            |
| 7  | Mohsen Kashani, 1995         | 8  | Jafar Vatankhah, 1997          |
| 9  | Bahram Shahin, 1997          | 10 | Akbar Malekpour, 1997          |
| 11 | Ali Reza Karami, 1997        | 12 | Ali Reza Jahanshahi, 1998      |
| 13 | Marjan Immami, 1999          | 14 | Mohammad Safi Rahmanifar, 1999 |
| 15 | Shoukat Sahari, 2000         | 16 | Hassan Karami, 2000            |
| 17 | Hosseini Heli, 2001          | 18 | Arezo Akbari, 2002             |
| 19 | Mohadesi Zarandi, 2002       | 20 | Shahram Ghasemi, 2003          |
| 21 | Mojdeh Yousef Elahi, 2005    | 22 | Mohammad Ali Kiani, 2006       |
| 23 | Hamidreza Ghenaatian, 2007   | 24 | Niloufar Hosseininasab, 2009   |
| 25 | Afshin Pendashteh, 2009      | 26 | Fatemeh Beigloo, 2010          |
| 27 | Samaneh Mirsian, 2010        | 28 | Ali Abbasi, 2011               |
| 29 | Zahra Bagheryan, 2011        | 30 | Mahdi Abedi, 2011              |
| 31 | Ghasem Darabi-zad, 2012      | 32 | Mohsen Najafi, 2012            |
| 33 | Sima Malelahi, 2013          | 34 | Omid Arabi, 2013               |
| 35 | Pejman Kakvand, 2013         | 36 | Shokoufeh Mokhtari, 2014       |

37 Mohammad Kazem Altafi, 2015  
39 Ali Khodabandehlo, 2016  
41 Habibeh Bishkul, 2017  
43 Afshin Baghervand, 2018  
45 Maryam Bagherinejad, 2019  
47 Shadab Afshar, 2020  
49 Abedeh-Sadat Sajjadi, 2022  
51 Kosar Labbafi, 2022

38 Morteza Sarparast, 2015  
40 Fatemeh Ghojavand, 2016  
42 Mohadeseh Borghei, 2017  
44 Mahsa-Sadat Javadi, 2019  
46 Parisa Arabkhedri, 2020  
48 Ali Shakibanasab, 2020  
50 Rezvaneh Rahmani, 2022

**Ph.D graduated: 35**

1	Dr. Mohsen Barzegar, 2001	2	Dr. Abdolvahed Rahmani, 2001
3	Dr. Majid Arvand, 2003	4	Dr. Siavash Riahi, 2003
5	Dr. Mohammad Safi Rahmanifar, 2003	6	Dr. Habibollah Khajehsharifi, 2005
7	Dr. Hassan Karami, 2005	8	Dr. Khadijeh Ghanbari, 2007
9	Dr. Shahram Ghasemi, 2007	10	Dr. ali Mehdinia, 2008
11	Dr. Mohammad Ali Kiani, 2010	12	Dr. Ehsan Salamifar, 2010
13	Dr. Mojdeh Yousef Elahi, 2011	14	Dr. Vali Alizadeh, 2011
15	Dr. Hamidreza Ghenaatian, 2011	16	Dr. Ali Hamzehloei, 2013
17	Dr. Afshin Pendashteh, 2013	18	Dr. Nasrin Moradi, 2014
19	Dr. Fatemeh Beigloo, 2015	20	Dr. Seyed Ebrahim Moosavi-Fard, 2016
21	Dr. Samaneh Mirsian, 2016	22	Dr. Masumeh Hashemi, 2016
23	Dr. Seyed Rasool Azari, 2017	24	Dr. Masoud Amiri, 2017
25	Dr. Hooman Hesari, 2018	26	Dr. Maryam Hemmati, 2019
27	Dr. Yasin Shabangoli, 2019	28	Dr. Hamed Alijani, 2020
29	Dr. Mahrokh Nazari, 2021	30	Dr. Masumeh Moloudi, 2021
31	Dr. Elaheh Dadashpour, 2021	32	Dr. Neda Dianat, 2021
33	Dr. Ali Khodabandehlo, 2022	34	Dr. Navid Khodayar, 2022
35	Dr. Atefeh Ashoori, 2023		

**PostDoc Researchers: 5**

1. Dr. Abolhassan Noori, 2012-2018



2. Dr. Hoda Ilkhani 2012-2014
3. Dr. Afshin Pendashteh, 2013-2014
4. Dr. Seyed Mehdi Khoshfetrat, 2017-2018
5. Dr. Fatemeh Shahbazi, 2019-2022

## Courses Taught:

### MSc Students:

1. Analytical Electrochemistry

### PhD Students:

1. Modern Techniques for Instrumental Analyses
2. Mechanism of the Electrochemical Reactions

## Educational Records:

Ph.D: [Shiraz University](#), 1992

M.Sc: [Tarbiat Modares University](#), 1988

B.Sc: [Tarbiat Moallem \(Kharazmi\) University](#), 1983

## Author Identifiers:

ORCID Number: 0000-0001-7361-4298

Scopus Author ID: 56938039600

ResearcherID: D-3918-2009

[Publons profile](#)

[Google Scholar](#)

[Homepage](#)

## Hobbies:

Hiking, Cycling, Travelling

## Contact:

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