

Curriculum Vitae



Veerappan Mani

Research Scientist

King Abdullah University of Science and Technology (KAUST)

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Research Areas: Analytical Chemistry, Materials Chemistry, Clinical Diagnostics, Nanotechnology

EDUCATION

Harvard BOK Higher Education Teaching Certificate (04/2021-06/2021), HarvardX, Online from Harvard University

PhD Engineering (Chemistry) (2010-2014), National Taipei University of Technology, Taipei, Taiwan

M.S., Chemistry (2007-2009), Bharathidasan University, India

B.S., Chemistry (2004-2007), Periyar University, India

PROFESSIONAL EXPERIENCE

2019–present Research Scientist, King Abdullah University of Science & Technology, (KAUST), Saudi Arabia

2016–2019 Research Assistant Professor, National Taipei University of Technology, Taiwan

2014–2016 Postdoctoral Researcher, National Taipei University of Technology, Taiwan

2010 Lecturer in Chemistry, Bishop Heber College, India

2009 Lecturer in Chemistry Practical, Bharathidasan University, India

TEACHING

I teach topics in the following areas.

1. Analytical Chemistry, Physical Chemistry
2. Electrochemistry, Nanotechnology, Bioanalytical chemistry
3. Environmental chemistry, General Chemistry

Editorial Board Member

1. *Editorial Board Member*, International Journal of Molecular Sciences (*Impact factor*: 6.208).
2. *Associate Editor*, Frontiers in Materials (*Impact factor*: I.F 3.985).
3. *Review Editor*, Flexible in Electronics.
4. *Special issue Editor*, Micromachines (*Impact factor*: 3.523).

Membership of Professional Societies

1. American Chemical Society (ACS)
2. Member of Royal Society of Chemistry (MRSC)
3. International Society of Electrochemistry (ISE)
4. Bioelectrochemical Society (BES)
5. Indian Society for ElectroAnalytical Chemistry (ISEAC), Life member

AWARDS, FELLOWSHIPS AND RECOGNITIONS

- Included in the world's top 2% scientists list published by Stanford University researchers, 2012-2021 (Categories: Energy and Analytical Chemistry). Ranked 1218 among 186014 researchers (top 0.65% researcher in category).
- “Sunshine Best Researcher Award” from Taipei Tech, Taiwan during continuous years of 2016-2018.
- Top third in the "citation index matrix" among Taipei Tech faculties for 2011-2016.

- Outstanding Foreign Student Scholarship from Taipei Tech, 2011-2013.
- Qualified in National level ‘Graduate Aptitude Test for Engineering (GATE)’, India (82.67%), 2009.
- University distinction award in B.Sc. (2007), School topper & meritorious student (2002-2004).

SELECTED PUBLICATIONS (10/103)

citations: 4891; *h*-index: 40

1. **V. Mani**,* C. Durmus, W. Khushaim, D. Ferreira, S. Timur, F. Arduini, K.N. Salama,* Multiplexed Sensing Techniques For Cardiovascular Disease Biomarkers: Review. *Biosensors and Bioelectronics*, **2022**, *216*, 114680.
2. W. Khushaim, K. Peramaiah, T. Beduk, M.T. Vijjapu, J.O. Filho, K.W. Huang, **V. Mani**,* K.N. Salama,* Porous Graphitic Carbon Nitrides Integrated Biosensor for Cardiac Troponin I, *Biosensors and Bioelectronics: X*, **2022**, *12*, 100234.
3. P. Arul, S.T. Huang, **V. Mani**, C.H. Huang, Gold–Silver Bimetallic Alloy Nanoparticles in a Covalent Organic Framework for Real-Time Monitoring of Hydrogen Peroxide from Live Cells, *ACS Applied Nano Materials*, **2022**, *5*, 6340-6351.
4. **V. Mani**,* T. Beduk, W. Khushaim, A.E. Ceylan, S. Timur, O.S. Wolfbeis,* K.N. Salama,* Electrochemical Sensors Targeting Salivary Biomarkers: Review, *TrAC Trends in Analytical Chemistry* **2021**, *135*, 116164.
5. N. Jeromiyas, **V. Mani**,* P.C. Chang, C.H. Huang, et al., Anti-poisoning electrode for real-time in-situ monitoring of hydrogen sulfide release, *Sensors and Actuators, B: Chemical*, **2021**, *326*, 128844
6. **V. Mani**,* S. Selvaraj, N. Jeromiyas, S. T. Huang, et al., Growth of large-scale MoS₂ nanosheets on double layered ZnCo₂O₄ for real-time *in-situ* H₂S monitoring in live cells, *Journal of Materials Chemistry B*, **2020**, *8*, 7453.
7. **V. Mani**,* S. Shanthi, T.K. Peng, H.Y. Lin, H. Ikeda, et al., Real-time quantification of H₂O₂ production in living cells using NiCo₂S₄@CoS₂ heterostructure, *Sensors and Actuators, B: Chemical*, **287**, 124-130
8. **V. Mani**,* S. Shanthi, T.K. Peng, H.Y. Lin, et al., ZnCo₂O₄ nanoflowers grown on Co₃O₄ nanowire-decorated Cu foams for in-situ profiling of H₂O₂ in live cells and biological media, *ACS Applied Nano Materials*. **2019**, *28*, 5049-5060
9. B.J. Chen, **V. Mani**, S.T. Huang, Y.C. Hu, H.C.P. Shand, Bisintercalating DNA redox reporters for real-time electrochemical qLAMP, *Biosensors and Bioelectronics* **2019**, *129*, 277-283
10. K. Manibalan, **V. Mani**, P.C. Chang, et al., Electrochemical latent redox ratiometric probes for real-time tracking and quantification of endogenous hydrogen sulfide production in living cells. *Biosensors & Bioelectronics* **2017**, *96*, 233–238.

SELECTED CONFERENCE PRESENTATIONS

(Complete conference presentations are available at <https://veerappanmani007.wixsite.com/veerappanmani/conference>)

1. **V. Mani**, S.T. Huang, K.N. Salama, Nanomaterials Synthesis for in-Situ Profiling of Endogenous Hydrogen Sulfide, *241st ECS Meeting*, May 29-June 02, 2022, Vancouver, Canada.
2. **V. Mani**, Designing nano-interfaces for real-time profiling of endogenous oxidants, *An-Pang Tsai Memorial Joint Symposium of Taipei Tech and Tohoku University*, held in Tohoku University, Japan, Nov. 24–26, 2019
3. **V. Mani**, B. Dinesh, S.M. Chen, J.-J. Syu “Reduced graphene oxide-MWCNTs-Pt nanocomposite for biosensing”, *4th International Symposium on Technology for Sustainability (ISTS)* held in Taipei, Taiwan, Nov. 19-21, 2015
4. S.M. Chen, **V. Mani**, S. Palanisamy, Y. Li, Immobilization of enzymes and redox proteins and their biosensor applications, *222th ECS Meeting 2012 The Electrochemical Society*, Honolulu, Hawaii (Oct. 7–12, 2012).
5. S.M. Chen, **V. Mani**, Y. Li, S. Palanisamy, Graphene based nanocomposites for electrochemical sensors and energy storage, *Crystal & Graphene Science Symposium-2012*, Waltham, USA (Sep. 5–6, 2012).

INVITED TALKS (selected)

(Complete list is available at <https://veerappanmani007.wixsite.com/veerappanmani/conference>)

1. *Invited talk*: Webinar on “Bio-nanotechnology: From sensors to therapeutics”, Department of Food Science & Biotechnology, Universitas Brawijaya, Indonesia (Feb. 19, 2022). *Title*: Nano-biosensors for healthcare applications.
2. *Invited talk*: ‘International e-Conference on Recent Developments in Organic and Inorganic Materials’ organized by

- Thiruvalluvar University, India (Sep. 22, 2020). *Title:* Electrochemical Salivary biosensors
3. *Invited talk:* 88th International virtual learning series, webinar organized by Department of Chemistry, Arulmigu Kalasalingam College of Pharmacy, India (Sep. 22, 2020). *Title:* Wearable Sensors for Healthcare Monitoring
 4. *Invited talk:* ‘International virtual conference on advanced materials for sustainable development’ by Bannari Amman Institute of Technology, India (Aug. 7-8, 2020). *Title:* Biomaterials for real-time *in-situ* sensors
 5. *Invited talk:* 2020 Spring Seminar Series- Biological and Environmental Science and Engineering Division, King Abdullah University of Science and Technology (KAUST) (March 27, 2020). *Title:* Real-time in-situ monitoring of endogenous redox chemicals using electrochemical sensors

PERSONAL DETAILS

Date of birth : June 20, 1987; Marital status: Married; Nationality: Indian

Permanent address: No. 1/239, Devarasampatti, Dharmapuri, 636807, Tamil Nadu, India