CURRICULUM VITAE

Name : **Dr. V. Mowlika**

Designation/Present position : Assistant Professor

Official Address for communication : Department of Physics,
St. Joseph's College of Arts And Science For WOMEN,
Mookandapalli, Sipcot, Hosur- 635126.

Email I.D. : mowlikav198@gmail.com

Mobile No : +91- 8072259712

Broad field of Research : Materials Research and Nano Science

Qualification:

Degree	Subject	Institution	Year
Ph.D.	PHYSICS	Govt. Arts College (men), Krishnagiri. Affiliated to Periyar University, Salem.	2022
M.Sc	PHYSICS	Sacred Heart College (Autonomous), Tirupattur. Affiliated to Thiruvalluvar University, Vellore	2014
UG	PHYSICS	Govt. Arts College for Men, Krishnagiri, Affiliated to Periyar University, Salem	2012

Discipline/Area of specialization : Materials Research, Nano Science and Shock waves

Teaching Experience/Employment history :

Designation	From	To	University/Institution
ASSISTANT PROFESSOR	2014	2015	Department of Physics, Auxilium College (Autonomous), Vellore
ASSISTANT PROFESSOR	2022	Till date	St. Joseph's College of Arts and Science for women,Hosur

M.Phil./Ph.D. Candidates guided/awarded : M.Phil: --- Ph.D.: -----

Editorial Activity/Journal Reviewer : ------

INTERNATIONAL CONFERENCES / SEMINARS ATTENDED: 4

1. RF-based wireless ammonia detection at room temperature using cobalt-doped Pani Nanomaterial, Presented in "**International conference** on signal processing, communication and embedded control (ICSPCEC-19)" held at APS college of engineering, Bengaluru, Karnataka, during 3 – 4 May 2019.

2. Role of coupling divalent metal ion of tin on structural and magnetic properties of $NiFe_2O_4$ nanoparticles, Presented in "**International Conference** on Functional Materials for Engineering and Bio Applications (FMEBA2019)" held at Govt. Arts and Science College (Model College), Hosur, Tamil Nadu – 635110, during 19-20 December 2019.

3. The Structural and Dielectric Properties of Pure and Aluminium doped copper ferrite NPs, Presented in "**International conference** on Recent trends in applied science and Technology" organized by Department of physics, Periyar university, Salem – 636 011, Tamil Nadu, India, During 23rd to 25th August 2018.

4. The structural and electrical properties of Zn and Mn ferrites by sol-gel method, Presented in *"2nd **International Conference** on Renewable Energy and Environment (ICREE - 2016)"* held at Sri Ramakrishna Mission Vidhyalaya College of Arts and Science (Autonomous), Coimbatore during 15th and 16th Dec 2016.

NATIONAL CONFERENCES / SEMINARS ATTENDED: 1

1. Investigation on Structural and Dielectric Properties of Pure and Aluminium doped copper ferrite nanoparticles for high-frequency applications, Presented in " **National conference** on advanced materials for sustainable energy and sensors (NCAMSES – 2019)" held at Department of physics, Alagappa University, Karaikudi, Tamil Nadu, India, During 20th to 22nd March 2019

NUMBER OF PUBLICATIONS (INTERNATIONAL/NATIONAL): 11

RECENT PAPERS PUBLISHED: (Authors name, Journal name, Vol., year, pages):

[1] **V. Mowlika**, A. Sivakumar, S.A. Martin Britto Dhas, C.S. Naveen, A.R. Phani and R.Robert; Shock wave-induced switchable magnetic phase transition behaviour of $ZnFe_2O_4$ ferrite nanoparticles, **Journal of Nanostructure in Chemistry**, 10, 203-209 (2020), DOI: https://doi.org/10.1007/s40097-020-00342-0

[2] **V. Mowlika**, C.S. Naveen, A.R. Phani, A. Sivakumar, S.A. Martin Britto Dhas and R.Robert; Crystallographic and Magnetic Phase Stabilities of $NiFe_2O_4$ Nanoparticles at Shocked Conditions, **Journal of Materials science: Materials in Electronics**, 31, 14851-14858 (2020). DOI: https://doi.org/10.1007/s10854-020-04047-6

[3] **V. Mowlika**, C.S. Naveen, A.R. Phani and R.Robert; Role of Coupling Divalent Metal Ion of Tin on Structural and Magnetic Properties of $NiFe_2O_4$ Nanoparticles, **IEEE Transactions on Magnetics,** 56, 8, (2020). DOI 10.1109@TMAG.2020.2999867

[4] R. Kishore Kumar, C.S.Naveen, **V.Mowlika**, R.Robert and A.R.Phani, The structural and electrical properties of Zn and Mn ferrites by sol-gel method. **Mechanics Materials Science & Engineering,** 14, (2018), DOI: 10.2412/mmse.75.21.462

[5] **V. Mowlika**, C.S. Naveen, A.R. Phani, A. Sivakumar, S.A. Martin Britto Dhas and R.Robert; Shock wave induced magnetic phase transition in Cobalt ferrite nanoparticles, **Journal Material Chemistry and Physics**, 275, 125300 (2022). DOI: https://doi.org/10.1016/j.matchemphy.2021.125300.

[6] A. Sivakumar**, V. Mowlika**, S. Sahaya Jude Dhas, Abdulrahman I. Almonsour, Raju Suresh Kumar, Natarajan Arumugam, R.Robert, Shubhadip Chakraborty, and S.A. Martin Britto Dhas; Assessment of Shock resistance of Barium ferrite at dynamic Shocked Conditions, **Journal of Materials science: Materials in Electronics,** 32, 22429 – 22439 (2021), DOI: https://doi.org/10.1007/s10854-021-06729-1

[7] **V. Mowlika**, C.S. Naveen, A.R. Phani, A. Sivakumar, S.A. Martin Britto Dhas and R.Robert, "Sustainable structural, morphological and magnetic properties of $MgFe_2O_4$

nanoparticles under dynamic shock wave exposure" **Material. Letter X**. 14, 100146 (2022) DOI: https://doi.org/10.1016/j.mlblux.2022.100146

[8] A. Sivakumar, **V. Mowlika**, S. Sahaya Jude Dhas, S. Prabhu, R. Ramesh, R. Robert, S.A. Martin Britto Dhas; Shock wave induced switchable electrical resistance of $ZnFe_2O_4$ nanoparticles. **Solid State Sciences** 125 (2022) 106843. DOI: https://doi.org/10.1016/j.solidstatesciences.2022.106843

[9] A. Sivakumar, Lidong dai,S. Sahaya Jude Dhas, **V. Mowlika**, P.Sivaprakash, Raju suresh kumar, Abdul Rahman I. Almansour, S. Arumugam, Ikhyun Kim and S.A. Martin Britto Dhas; "X-ray diffraction and optical spectroscopic analysis on the crystallographic phase stability of shock wave loaded L-Valine. J Mater Sci Computation & Theory (2023). DOI: https://doi.org/10.1007/s10853-023-08588-z

[10] A. Sivakumar, Lidong dai,S. Sahaya Jude Dhas, S.A Martin Britto Dhas, **V. Mowlika**, Raju suresh kumar, Abdul Rahman I. Almansour; Reduction of amorphous carbon clusters from the highly disordered and reduced graphene oxide NPs by acoustical shock waves-Towards the formation of highly ordered graphene. ELSEVIER 137 (2023)110139. DOI;https://doi.org/10.1016/j.diamond.2023.110139

[11] V. Balasubramani, V. Mowlika, A. Sivakumar, Njod Al Sdran, F.Maiz, Mohd Shkir; Design and investigation of Sono-chemical synthesis of pure and Sn doped $CoFe_2O_4$ nanoparticles and their structural and magnetic properties.ELSEVIER 155 (2023) 111015. DOI;https://doi.org/10.1016/j.inoche.2023.111015