

Professor Hari Om

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Academic Societies/Associations affiliated

- Life Member of Indian Science Congress Association (**ISCA**)

Active in Research fields:

Electrochemistry

Thermodynamics

Thin films

A) Educational qualifications

Degree	Year of passing	University/ Institute
Ph.D	2007	M. D. University, Rohtak, Haryana
M.Sc.	2000	M. D. University, Rohtak, Haryana
B.Sc	1996	M. D. University, Rohtak, Haryana

B) Career profile

Designation	Institute served	Duration	
		From	To
Lecturer (Assistant Professor)	• NC College of Engineering & Technology, Israna, Panipat	Sept., 2004	Jan, 2007
	• Haryana Institute of Engineering & Technology, Asodha, Jhajjar	July, 2007	May, 2008
	• MERI, Engineering College, Sampla, Rohtak	July, 2008	Nov., 2008
	• Vaish College, Bhiwani	Nov., 2008	April, 2010
	• Department of Chemistry, M.D. University, Rohtak	May, 2010	Till now

C) Project undertaken			
Title of the project	Duration	Funding agency	Status
Anodic oxide films on metals and alloys	2011-2014	UGC, New Delhi	Completed

Awards and distinctions

University Research Fellowship (2001-2004) of M. D. University, Rohtak.

Assignment outside the M.D. University, Rohtak.

1. Visited Valencia, Spain, under the international project A New Generation of CIGS-Based Solar Cell (MC-IRSES) in 2012.
2. Visited Warsaw University of Technology, Faculty of Physics, Koszykowa, Poland in 2014.

D) PUBLICATIONS

Research papers: 37

RESEARCH PAPER:

1. Characterization and photoluminescence properties of some CaO, SrO and CaSrO₂ phosphors co-doped with Eu³⁺ and alkali metal ions, B. Marí K.C. Singh, Monica Moya, Ishwar Singh, **Hari Om**, Subhash Chand, Optical Materials, 34, **2012**, 1267–1271.
2. Excess Molar Enthalpies of mixing of sec- or tert- butyl chloride with aromatic hydrocarbons at temperature 308.15 K, Journal of Chemical, Biological and Physical science, Naveen Verma, **Hari Om**, Krishan Chander Singh, Journal of Chemical, Biological and Physical science, Vol.2, **2012**, Sec A, No. 4, 1736-46.
3. High field ionic conduction in anodic oxide films on tantalum in aqueous electrolytes, **Hari om**, Naveen Verma, Krishan Chander Singh, European Journal of Applied Engineering and Scientific Research, 2, **2013**, 25-35.
4. Preparation and luminescence properties of MZrO₃:Eu³⁺, A (M=Ca²⁺, Ba²⁺; A=Li⁺, Na⁺, K⁺) phosphors with perovskite structure, Marí, B., Cembrero-Coca, P., Singh, K.C., Kaushik, R.D., **Om, H**, Acta Physico–Chimica Sinica, 29, **2013**, 1357-1362.
5. Ultrasonic studies of molecular interactions in binary mixtures of formamide with some isomers of butanol at 298.15K and 308.15K, Manju Rani, Suman Gahlyan, **Hari Om**, Naveen Verma, Sanjeev Makin, Journal of Molecular Liquids, 194, **2014**, 100-109.
6. Fabrication of Porous Anodic Alumina by Two Step Anodic Oxidation and Photo Luminescent Properties of doped and undoped Alumina, Naveen Verma, Krishan

Chander Singh, Bernabe Mari, **Hari Om**, Jitender Jindal, Chem Sci Rev Lett, 3, **2014**, 597-602.

7. Hexamine as Corrosion Inhibitor for Mild Steel in Acidic Medium, Harish Kumar, **Hariom**, Pradeep Kumar, Vikas and Anjoo, Elixir Corrosion & Dye ,97, **2016**, 42060- 42065.
8. Corrosion inhibition of mild steel by using Hexylamine as corrosion inhibitor in acidic medium, **Hariom**, Harish Kumar, Pradeep Kumar, Vikas and Anjoo Bala, Der Pharma Chemica, 8, **2016**, 268-278.
9. Corrosion Inhibition of carbon steel by an Isatin Schiff base in acidic medium, Hariom, Anjoo Bala, Harish Kumar, Vikas and Pradeep Kumar, Der Pharma Chemica, **2016**, 8(12):149-156.
10. Inhibition of Mild Steel Corrosion in 1.0M HCl Solution by Octadecylamine as Corrosion Inhibitor, Pradeep Kumar, Harish Kumar, Vikas, **Hariom**, Der Pharma Chemica, 9, **2017**, 100-108.
11. Corrosion Inhibition for Mild Steel in Acidic Medium by Using Hexadecylamine as Corrosion Inhibitor, Pradeep Kumar, Vikas Kalia, Harish Kumar, **Hariom Dahiya**, Chemical Science Transactions, 6, **2017**, 2278-3458.
12. Isatin Schiff Base as an Eco friendly Corrosion Inhibitor for Carbon Steel in 1M HCl, Anjoo Bala, Pradeep Kumar, Vikas, **Hariom**, Der Pharma Chemica, 9, **2017**, 92-99.
13. Synthesis, biological evaluation and corrosion inhibition studies of transition metal complexes of Schiff base, Chemistry Central Journal, Chemistry Central Journal, 2018, 117.
14. Corrosion Inhibition Study of Dodecylamine as long Chain Amine Corrosion Inhibitor for Mild Steel in Hydrochloric Acid Solution, IJSRSET Vikas, Pradeep Kumar, Gobind Goyat, Suresh Kumar, Hari Om, 3 (**2018**), 732-743.
15. Schiff base as green corrosion inhibitor for carbon steel in 1M Hydrochloric acid solutions, International Journal of Advanced Science and Research Anjoo Bala, Vikas, Gobind Goyat, Suresh Kumar, * Hari Om, 3 (**2018**), 115-122.
16. Experimental Investigation of Isatin Schiff base as Corrosion Inhibitor for Carbon Steel in 1MHCl, IJSRSET, Anjoo Bala*, Vikas, Gobind Goyat, Suresh Kumar, Hari Om, 4 (**2018**), 744-754.
17. Study of corrosion inhibition properties of Tetradecylamine for mild steel in 1.0 M HCl solution, International Journal of Advanced Science and Research Vikas, Pradeep Kumar, Anju Malik, Suresh Kumar, Anjoo Bala,* Hariom, 3 (**2018**), 129-136.

18. Synthesis, characterization and anticorrosive effect of 2-(phenoxy methyl)-5-phenyl-1, 3, 4-oxadiazole for mild steel in 1 M HCl: A combined experimental and computational demonstration, May **2022**, 100421.
19. Synthesized oxadiazole derivatives as benign agents for controlling mild steel dissolution: Experimental and theoretical approach, Vikas Kalia, Pradeep Kumar, Suresh Kumar, Priti Pahuja Gaurav Jhaa, Suman Lata, Hariom Dahiya, Journal of Molecular Liquid, 313 (**2020**) 113601.
20. Corrosion inhibition and adsorption studies of Ammonium oxalate for mild steel by computational and experimental techniques: A sustainable approach, December **2021**, 100785.
21. Newly synthesized oxadiazole derivatives as corrosion inhibitors for mild steel in acidic medium: Experimental and theoretical approaches, **Suresh Kumar**, Vikas Kalia, Madhusudan Goyal, Gaurav Jhaa, Sudershan Kumar, Hemlata Vashisht, Hariom Dahiya, M. A. Quraishi, Chandrabhan Verma, Journal of Molecular Liquid. Journal of Molecular Liquids 357 (**2022**) 119077
22. Synthesis, characterization and corrosion inhibition potential of oxadiazole derivatives for mild steel in 1M HCl: Electrochemical and computational studies, Vikas Kalia, Pradeep Kumar, Suresh Kumar, Madhusudan Goyal, Priti Pahuja, Gaurav Jhaa, Suman Lata, Hariom Dahiya, Sudershan Kumar, Anita Kumari, Chandrabhan Verma. Journal of Molecular Liquid, [348](#) (**2022**), 118021.
23. Corrosion Inhibitive Properties of 5-(4-Aminophenyl)-1,3,4-oxadiazole-2-thiol and 5-(4- Methylphenyl)-1,3,4-oxadiazole-2-thiol on Mild Steel in 1.0 M HCl Solution, Vikas Kalia, Pradeep Kumar, Suresh Kumar and Hariom Dahiya, Asian Journal of Chemistry; Vol. 33, No. 12 (**2021**), 2953-2964.
24. Newly synthesized oxadiazole derivatives as corrosion inhibitors for mild steel in acidic medium: Experimental and theoretical approaches, Suresh Kumar, Vikas Kalia, Madhusudan Goyal, Gaurav Jhaa, Sudershan Kumar, Hemlata Vashisht, Hariom Dahiya, M. A. Quraishi, Chandrabhan Verma, Journal of Molecular Liquids. (**2022**).
25. Study of anticorrosive action and synthesis of 2-(phenoxymethyl)-5-p-tolyl-1,3,4-oxadiazole a in 1M Hydrochloric acid medium for mild steel, Suresh Kumar, Vikas Kalia, Hariom Dahiya, Asian Journal of Chemistry, 34 (**2022**), 597-606.
26. Evaluating the adsorption and corrosion inhibition capabilities of Pyridinium - P - Toluene Sulphonate on MS in 1 M HCl medium: An experimental and theoretical study Humira Assada, Suresh Kumar, Sourav Kr. Saha, Namhyun Kangc, Ishrat Fatma, Hariom Dahiya, Praveen Kumar Sharma, Abhinay Thakura, Shveta Sharmaa, Richika Ganjooa, Ashish Kumare, Inorganic Chemistry

Communications, 153 (2023)110817.

27. Highly efficient green corrosion inhibitor for mild steel in sulfuric acid: Experimental and DFT approach Harish Kumara,* , Pooja Yadava, Rajni Kumari, Rahul Sharma, Saloni Sharma, Devender Singh, Hariom Dahiya, Parvin Kumarc, Santosh Bhardwaj, Pawanvir Kaur, Colloids and Surfaces A: Physicochemical and Engineering Aspects 675 (2023) 132039.
28. Effective corrosion inhibition of mild steel using novel 1,3,4-oxadiazole-- pyridine hybrids: Synthesis, electrochemical, morphological, and computational insights Deepak Sharma, Abhinay Thakur, Manish Kumar Sharma, Renu Sharma, Suresh Kumard, Ashish Sihmar, Hariom Dahiya, Gaurav Jhaa, Ashish Kumar, Ashok Kumar Sharma, Hari Om, Environmental Research 234 (2023) 116555.
29. Comprehensive investigations of the synergistic effect of chalcone on the anti-corrosion activity of environmentally benign triazole hybrid, Manish Kumar Sharma a, Sonia Parashar b, Deepak Sharma a, Kranti Jakhar a, Ashish Sihmar c, Anand Bhardwaj d, Hariom Dahiya c, Hari Om.
30. Synergistic experimental and computational approaches for evaluating pyrazole Schiff bases as corrosion inhibitors for mild steel in acidic medium. Renu Khanna, Vikas Kalia, Raj Kumar, Ravi Kumar, Pradeep Kumar, Hariom Dahiya, Priti Pahuja, Gaurav Jhaa, Harish Kumar, Synergistic experimental and computational approaches for evaluating pyrazole Schiff bases as corrosion inhibitor for mild steel in acidic medium, Journal of Molecular Structure, Volume 1297, Part 1, 2024.
31. Electrochemical and computational insights into the utilization of 2, 2- dithio bisbenzothiazole as a sustainable corrosion inhibitor for mild steel in low pH medium. Humira Assad, Sourav Kr. Saha, Namhyun Kang, Suresh Kumar, Praveen Kumar Sharma, Hariom Dahiya, Abhinay Thakur, Shveta Sharma, Richika Ganjoo, Ashish Kumar, Electrochemical and computational insights into the utilization of 2, 2- dithio bisbenzothiazole as a sustainable corrosion inhibitor for mild steel in low pH medium, Environmental Research, Volume 242, 2024, 117640.

32. A research combined experimental and computational approaches of Succinylsulfathiazole Hydrate as a potent corrosion inhibitor for mild steel in acidic medium. Humira Assad, Suresh Kumar, Sourav Kr. Saha, Namhyun Kang, Hariom Dahiya, Abhinay Thakur, Shveta Sharma, Richika Ganjoo, Ashish Kumar, Journal of Molecular Liquids, Volume 388.
33. Assessment of the inhibitory efficacy of a thiazole derivative as an efficient corrosion inhibitor for augmenting the resistance of MS in acidic environments, Langmuir, Humira Assad, Sourav Kr Saha, Namhyun Kang, Suresh Kumar, Hariom Dahiya, Priyabrata Banerjee, Abhinay Thakur, Shveta Sharma, Richika Ganjoo, Ashish Kumar, 16367-16383, 2024/7/26.
34. Assessment of pyrazole Schiff base's corrosion inhibition effectiveness incorporating oxadiazole moiety on mild steel in 1 M HCl: A holistic theoretical and experimental analysis, R Khanna, M Dudi, B Mangla, V Kalia, A Sihmar, H Tanwar, H Dahiya Journal of Molecular Structure 1317, 139066, 2024.
35. Experimental and computational studies on the corrosion inhibition potential of a novel synthesized thiophene and pyridine-based 1, 3, 4-oxadiazole hybrid against mild steel ...D Sharma, A Thakur, MK Sharma, A Bhardwaj, A Sihmar, H Dahiya, Environmental Science and Pollution Research, 1-27
36. A sustainable and green method for controlling acidic corrosion on mild steel using leaves of *Araucaria heterophylla*. Vanshika Singh, Sudesh Kumar, Ashish Sihmar, Hariom Dahiya, Jyoti Rani, Suresh Kumar, Gholamreza Abdi, Maryam Abbasi Tarighat. Scientific Reports, *Sci Rep* **15**, 2225 (2025).
37. Investigation of the Corrosion Inhibition Ability of 1, 2, 3-Triazole-Based Isatin Through Experimental and In Silico Studies S Devi, A Kumar, A Prajapat, H Dahiya, R Kumar, K Lal, P Singh Chemistry Select 10 (23), e00722.

Conference Attended: 15