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|---|---|---|
| 1. | Name | **Dr. Naveen Kumar** |
| 2. | Designation: | Assistant Professor |
| 3. | Office Address: | Department of Chemistry |
| | | M. D. University, Rohtak-124001, India |
| | Office Phone: | +91-1262393131 |
| 4. | Residential Address: | House No 40,Type III, M D University Campus |
| | Residential Phone: | +91-9996415102( Mob) |
| 5. | Email: | naveenkumar.chem@mdurohtak.ac.in |
| | | vermanaveen17@gmail.com |
| 6. | Date of Birth: | 17-10-1980 |
| 7. | Date of Joining M.D.U | 01-05-2010 |
| 8. | Field of Specialization: | Physical Chemistry |
| 9. | Teaching Experience: | 7 Years 6 months |
| | Research Experience | 11 Years |
| 10. | Field of Research | **Anodic oxide film on metals** |
| | Interest/ Area of Interest | **Phosphor Materials, Photocatalysis** |
| | | **Solution Thermodynamics** |

11. Profile — Enthusiastic, responsible, able to work independently using initiative, and as part of a team with a positive attitude. Proficient in teaching with innovative ideas.

12. **Technical skills**

Experience in handling 2-Drop Calorimeter(Calorimetry Sciences Corporation), Spectro Photometer, Ultrasonic Interferometer; Spectrophotometry (UV-VIS); Potentiometry; Polarimetry and Flame Photometry etc.

**13. Academic Awards/Achievements**

Qualified GATE (Graduate Aptitude Test in Engineering) in 2004.

Qualified UGC-JRF NET for fellowship and lectureship in June 2004.

**14. Educational qualifications**

| **Degree** | **Year of passing** | **University/ Institute** |
|---|---|---|
| **Ph. D** | 2009 | M. D. University, Rohtak, Haryana |
| **M. Sc.** | 2004 | M. D. University, Rohtak, Haryana |
| **B. Sc** | 2001 | M. D. University, Rohtak, Haryana |

**15. Academic Societies Membership**

Life Member Indian Science Congress Association, Kolkata.

Life Member Indian chemical Society, Kolkata.

Life Member Indian Thermodynamic society

**16. Career profile**

| Designation | Institute served | Duration | |
|---|---|---|---|
| | | From | To |
| Lecturer (AssistanProfessor) | Haryana Institute Of Technology, Asoda Haryana | July 2008 | December2008 |
| AssistanProfessor | Department of Chemistry, M.D. University, Rohtak | May, 2010 | Till now |

**17. Project undertaken**

| Title of the project | Duration | Funding agency | Status |
|---|---|---|---|
| Anodic Oxide Films on Metals and Alloys | 2011-2014 | UGC, New Delhi | Completed |

**18. Publications**

Research papers Journals 22 (Annexure-I A)

**19. Participation in conferences/seminars** 12 (Annexure I B)

**20. Research Guidance:** Ph. D: Awarded 1, Guiding: 4

**21. Research Assignment outside M. D. University, Rohtak International Visits:**

Visited Department of applied Physics, University of Politechnica, Valencia, Spain on FP7/IRSES for research work in the international research project entitled as

"**DEVELOPMENT OF A NEW GENERATION CIGS BASED SOLAR CELLS**"[NANICIS-269279] in 2013 and 2014

**National Visits**

Lecture delivered on dated 15-03-2016 in S G T University, Gurgaon on the topic "**ZnO as an efficient catalyst**"

**Training Programmes**

| **Training Programme** | **Organizing Institution** | **Date of event** |
|---|---|---|
| Orientation Course | ACS B.P.S. Mahila Vishwavidyalya, Khanpur Kalan (Sonepat) | Dec.22, 2011 to Jan.20, 2012 |
| Refresher course | ACS Jamia Melia Islamia, New Delhi | Nov. 18, 2013 to Dec. 07, 2013 |
| Short Term Course(1 week) | G. J. U, Hisar | Nov. 25, 2016 to Nov. 29,2016 |
| Refresher course | HRDC, B.P.S. Mahila Vishwavidyalya, Khanpur Kalan (Sonepat) | Nov. 15, 2017 to Dec. 06, 2017 |

**List of Publication** **Annexure I**
**A**

1. **Synthesis and charcterization of coupled ZnO/$SnO_2$ photocatalysts and their activity towards degradation of cibacron red dye,** Naveen Verma, Suprabha Yadav, Bernabe Mari, Anuj Mittal, Jitender Jindal, Accepted, Trans. Ind. Ceram. Soc. (Accepted).

2. **Luminescence Properties of $CaAl_2O_4:Eu^{3+}$, $Gd^{3+}$ Phosphors Synthesized by Combustion Synthesis Method** N. Verma,□ , K.C. Singh , B. Marí , M. Mollar , J. Jindal, Acta Physica Polonica, 132(4) 1261-1264(2017).

3. **Steady state kinetics of formation of oxide films on niobium and tantalum metals in malic acid electrolyte at different temperatures,** Naveen Verma, Jitender Jindal, Krishan Chander Singh, Journal of Indian Chemical Society, 94, **2017**, 409-417.

4. **Optical properties of Yb-doped ZnO/MgO composites**, Bernabe Mari Soucase, K.C. Singh, **Naveen Verma**, Jitender Jindal, Ceramic International , 42(11) 13018-13023-2016.

5. **Structural and electrochemical impedence spectroscopic studies of anodic oxide film on zirconium fabricated in different aqueous electrolyte,**

   **Naveen Verma,** Krishan Chander Singh, Jitender Jindal, Bernabe Marí and Miguel Mollar, Journal of Australian Ceramic Society **52(2) 2016, 111-119**

6. **Structural and optical properties of $Ta_2O_5:Eu^{3+}$: $Mg^{2+}$ or $Ca^{2+}$ phosphor prepared bymolten salt method**

   **Naveen Verma**, Bernabe Mari, Krishan Chander Singh, Jitender Jindal, Miguel Mollar, Ravi Rana, A. L. J. Pereira , F. J. Manjón, AIP Conference Proceedings **1724**, 020082 (2016); doi: 10.1063/1.4945202

7. **Luminescence properties of $ZnMoO_4:Eu^{3+}:Y^{3+}$ materials synthesized by solution combustion synthesis method,** Naveen Verma, Bernabe Mari, Krishan Chander Singh, Jitender Jindal, Miguel Mollar, and Suprabha Yadav**,** AIP Conference Proceedings **1724**, 020122 (2016); doi: 10.1063/1.4945242

8. **Synthesis and characterization of nanoporous anodic oxide film on aluminum in $H_3PO_4$ + $KMnO_4$ electrolyte mixture at different anodization conditions**

   Naveen Verma, Jitender Jindal, Krishan Chander Singh, and Bernabe Mari AIP Conference Proceedings **1724**, 020044 (**2016**); doi: 10.1063/1.4945164

9. **Anodic Oxide Films on Niobium and Tantalum in Different Aqueous Electrolytes and Their Impedance Characteristics**

   **N. Verma**, K.C. Singh, B. Marí, M. Mollar, J. Jindal, Acta Physica Polonica, 129(3) 297-303(2016).

10. **Luminescence Properties of the $Eu^{2+}$/$Eu^{3+}$ Activated Barium Aluminate Phosphors with $Gd^{3+}$ concentration Variation**

    B. Marí, K. C. Singh, **N. Verma**, M. Mollar & J. Jindal, Trans. Ind. Ceram. Soc., vol. 74(3) 3, 1-5 **(2015).**

11. **Fabrication of Nanomaterials on Porous Anodic Alumina Template Using Various Techniques**, **Naveen Verma**, Krishan Chander Singh, Jitender Jindal, Indian Journal of Advances in Chemical Science 3(3**) (2015)** 235-246

12. **Influence of anodization parameters of first step on structural features of porous anodic alumina (PAA) finally formed in phosphoric acid**, **Naveen Verma**, Krishan Chander Singh, Bernabe Mari, Jitender Jindal, Journal of Indian Chemical Society , 92, **2015**, 1237-1243

13. **Ultrasonic studies of molecular interactions in binary mixtures of formamide with some isomers of butanol at 298.15 K and 308.15 K**. Manju Rani , Suman Gahlyan , Hari Om, **Naveen Verma** , Sanjeev Maken, Journal of Molecular Liquids 194 (**2014**) 100–109. ISSN: 0167-7322.

14. **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 **2014**, 3(11), 597-602, ISSN 2278-6783.

15. **Fabrication and Structural Studies of Porous Anodic Oxide Film on Pure Aluminium and Aluminium Alloy (AA 1100), Naveen Verma**, Krishan Chander Singh, Bernabe Mari and Jitender, Chemical Science Transactions **2014**, 3(2), 556-561, ISSN: 2278-3318
16. **Porous anodic alumina film formation in oxalic and phosphoric acid solutions and**

**their photoluminescence properties. Naveen Kumar**, Krishan Chander Singh, Hariom, Jitender, Research and Reviews in electrochemistry, 4(4), **2013** ,117-120 ISSN : 0974 - 7540

17. **High field ionic conduction in anodic oxide films on tantalum in aqueous electrolytes**, Hariom, **Naveen Verma** *, Krishan Chander Singh, European Journal of Applied Engineering and Scientific Research, **2013**, 2 (1):25-35., ISSN: 2278 – 0041.

18. **Excess Molar Enthalpies of mixing of sec- or tert- butyl chloride with aromatic hydrocarbons at temperature 308.15 K**, **Naveen Verma**, Hari Om, Krishan Chander Singh, Journal of Chemical, Biological and Physical science, Sec A, **2012**, Vol.2, No. 4, 1736-46, E-ISSN: 2249-1929.

19. **Volumetric properties of *SEC*- and *TERT*-butyl chloride with benzene, toluene and xylenes at 308.15 K**. **N. Verma**, S. Maken, K.C. Singh, J.W. Park. J. Molecular Liquids. Volume 141, Issues 1-2, 30 May 2008, Pages 35-38

20. **Excess Gibb's free energy of butyl acetate with cyclohexane and aromatic hydrocarbons at 308.15 K**. S. Maken, **Naveen Verma**, Ankur Gaur, K.C. Singh, and J.W. Park. Korean J. Chemical Engineering. 25(2) 273-278(2008).

21. **Molar Excess Volume of *SEC*- and *TERT*-Butyl Chloride with Aromatic Hydrocarbons at 298.15 K**.**NaveenVerma**, Sanjeev Maken, Balraj Deshwal, Krishan Chander Singh, Jin-Won Park, J.Chem.Eng.Data,2007,52, 2083-2085.

22. **Molar Excess Volume of Butyl Acetate with Cyclohexane or Aromatic Hydrocarbons at 298.15 K** Sanjeev Maken , Ankur Gaur, **Naveen Verma**, K. C. Singh , Seungmoon Lee and Jin-Won Par*K* J. Ind. Eng. Chem., Vol. 13, No. 7, (2007) 1098-1102

**Conference Attended** **Annexure I B**

Papers presented in conference/seminar/workshop/symposia etc.

| Sr. No. | Title of the paper presented | Presented by | Title of the conference/ seminar etc & organizer | Date of the event |
|---|---|---|---|---|
| **1** | Excess Gibb's free energy of butyl acetate with cyclohexane and aromatic hydrocarbons | Naveen Verma | 95th Indian Science congress held at Visakhapatnam | 03-07 Jan, 2008 |

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| | at 308.15 K | | | |
| 2 | Volumetric properties of *SEC*- and *TERT*-butyl chloride with benzene, toluene and xylenes at 308.15" | Naveen Verma | 95th Indian Science congress held at Visakhapatnam | 03-07 Jan, 2008 |
| 3 | Study of Thermodynamic molecular interactions in liquid mixtures containing isomeric chlorobutanes + cyclohexane or benzene | Naveen Verma | National conference on Global Challenges New Frontier in Chemical Sciences, Kurukshetra University Kurukshetra, Haryana | 22-23 Sep, 2012 |
| | or toluene mixtures at temperature 303.15 K | | | |
| 4 | Excess molar enthalpies and isothermal (vapour liquid ) equilibria of sec butyl chloride + cyclohexane or benzene or toluene mixtures. | Naveen Verma | International conference on Green Technologies For Environmental Rehabiliation, Gurukul Kangri, Haridwar, Uttarakhand | 11-13 Feb, 2012 |
| 5 | Porous anodic alumina film formation in oxalic & phosphoric acid solutions and photoluminescence properties | Naveen Verma | National conference on Advances In Chemical Sciences, Maharshi Dayanand University, Rohtak. | 1-2 March, 2013 |

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| 6 | Structural Studies Of Porous Anodic Alumina Formed In Phosphoric Acid By Two Step Anodic Oxidation And Influence Of Applied Voltage For Fabrication of Ordered Porous Structure. | Naveen Verma | International conference on Interdisciplinary Areas With Chemical Sciences, Punjab university, Chandigarh | 30 Oct- 1 Nov. 2013 |
| 7 | Improved porous structure of anodic alumina formed in Phosphoric acid by two step anodic oxidation | Naveen Verma | National Conference on Emerging Trends in Engineering & Sciences. Gurukul Kangri, Haridwar, Uttarakhand | 9-10 Nov. 2013 |
| 8 | Influence of anodization parameters of first step on structural features of porous anodic alumina (PAA) finally formed in phosphoric acid | Naveen Verma | 101st Indian Science Congress Association, University of Jammu, Jammu | 3-7 Feb. 2014 |
| 8. | Surface and Electrochemical Impedence characteristics of Anodic Oxide Film on | Naveen Verma | 101st Indian Science Congress Association, University of Mumbai, Mumbai | 3-7 Jan 2015 |

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| | Ta and Nb in Different aqueous electrolyte | | | |
| 9 | Anodic oxide film on aluminium in $H_3PO_4$ + $KMnO_4$ electrolyte mixture at different anodization conditions | Naveen Verma | National conference on Emerging Trends in Chemical Sciences and Technlogy(ETCST-15) CDLU -Sirsa | Feb 25, 2015 |
| 10 | Luminescent Properties of $CaAl_2O_4$: $Eu^{3+}$,:$Gd^{3+}$ phosphor synthesized by combustion synthesis method. | Naveen Verma | National conference on Science and technology for Indegenious development on India ISCA-Haridwar Chapter Gurukul Kangri University, haridwar, Uttrakhand | September 28-30. 2015 |
| 11 | Spectral properties of the $Eu^{2+}$ /$Eu^{3+}$ activated Barium aluminate phosphors with varies $Gd^{3+}$ concentration by combustion method | Naveen Verma | International conference on Nascent development on chemical sciences BITS-PILANI | October 16-18, 2015 |

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| 12 | Enhanced Luminescence by Tunable Coupling of $Eu^{3+}$ and $Tb^{3+}$ in $ZnAl_2O_4:Eu^{3+}:Tb^{3+}$ phosphor synthesized by solution combustion method | Naveen Verma | National Conference on science and Technology for national Development Gurukul Kangri University, haridwar, Uttrakhand | November 20-22, 2016 |