

Curriculum Vitae

Dr. SUMANTHA H S Ph.D.

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Personnel Information:

Name : Sumantha H S	Correspondence Address:
Nationality : Indian	# 122, Ground floor, Ganesha Mandir
Gender : Male	Road 2 nd Block thyagarajanagar
Date of Birth : 05-11992	Bengaluru – 560 028
Marital status: Married	Mobile: +91 7353815841
Languages Known: Kannada, English, Hindi	E-Mail: sumanthahs92@gmail.com

Educational qualifications:

Ph.D. in Physics (2017-2024) Awarded	Thesis title: Synthesis and Characterization of Nanoporous anode for Li ⁺ Batteries Supervisor: Dr. B L Suresha Research Center: Dept. of Physics, BMS College of Engineering, Bengaluru University: Visvesvaraya Technological University (VTU), Belagavi	
M.Sc. in Physics (2013-15)	National college Jayanagar (Autonomous), Bangalore University	73.85%
B. Sc in PCM (2010-13)	Shree Siddaganga degree College, Tumkur University	72.21%

Teaching Experience:

Institution	Designation	Period
B.M.S. College of Engineering	Assistant Professor	September-2024-till date
K S School of Engineering and Management	Assistant Professor	October 2023- September-2024
Brindavan College of Engineering, Bengaluru	Assistant Professor	August – 2021- May- 2023
The Oxford College of Science, Bengaluru	Assistant Professor	September-2015- January 2018

Research Areas:

Material science: Synthesis and characterizations, preparation of nanomaterials and composites.

Electrochemical analysis: Investigation of electrochemical parameter of metal oxides and hybrid transition for energy storage devices.

Photocatalytic degradation Investigation of photocatalytic properties for metal oxides and hybrid transition degradation for organic azo dyes.

Academic Responsibilities handled:

- Subject/ course coordinator, Internal assessment (IA) test and time-table coordinator
 - Cultural club, sports, magazine, induction program and student activity coordinator
 - Handled few NAAC criteria and LIC accreditation work
 - Examiner for university exams (theory and practical) and Mentor for first year BE student
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Software known:

- Origin 8.5 graphs & analysis Gaussview 6, Avogadro, Gaussian 16 and MS Office.
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Areas of Interest:

- Research in the field of synthesis of metal oxides and mixed metal oxides.
 - Writing & publication of research articles.
 - Teaching as a resource person to students as well as for the organization.
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Membership:

- Indian Association of Physics Teachers (IAPT) L7635
 - The Indian Science Congress Association (ISCA) L36302
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Papers published in International Journal

- ❖ **H S Sumantha**, S Rajagopal, M Shashank, G Nagaraju, Vinayak K Pattar, Pavithra Shanmugaraj, Sakunthala Ayyasamy, B L Suresha “Green synthesis and characterization of Mn_3O_4 nanoparticles for photocatalytic and supercapacitors” Ionics volume 29, pages 733–749 (2023). <https://doi.org/10.1007/s11581-022-04823-w>. **IF: 2.8**
- ❖ **H. S. Sumantha**, S. Rajagopal, G. Nagaraju, M. Shashank, B.L. Suresha, “Facile and eco-friendly combustion synthesis of NiO particles for photodegradation studies” Chemical Physics Letters,

Volume 779, 138837 (2021), <https://doi.org/10.1016/j.cplett.2021.138837> IF :2.32.

❖ **H S Sumantha;** B L Suresha, “Biosynthesis, Characterization and Nonlinear Optical response of Spherical Flake shaped Copper Oxide Nanostructures Journal of Nonlinear Optical Physics & Materials Vol. 32, No. 04, 2250033 (2023) <https://doi.org/10.1142/S0218863522500333>

IF :0.91.

❖ **H S Sumantha;** B L Suresha, “Green, cost-effective synthesis of NiMnO₃ nanoparticles and their use in supercapacitor and photodegradation applications” Nano-Structures & Nano-Objects Volume 38, May 2024, 101151. <https://doi.org/10.1016/j.nanoso.2024.101151>.

❖ B L Suresha, **H S Sumantha**, K Mohammed Salman, N G Pramod, and J Abhiram “Experimental Studies on role of pH, potential and concentration of buffer solution for chemical bath deposition technique” Materials Science and Engineering, IOP Publishing, Volume 346, 2018. [DOI 10.1088/1757-899X/346/1/012033](https://doi.org/10.1088/1757-899X/346/1/012033) (conference series).

Conference participated & presented:

🇮🇳 NATIONAL:

2. Participated & Presented paper entitled “**Wavelength Dependent Studies on Molar Absorptivity of Metal Ions**” in national conference on Physics & Chemistry of Functional Materials-19, from 21st - 22nd February 2019 at GITAM university, Hyderabad.
3. Participated & Presented paper entitled “**Effect of NH₄ Cl doping on Electrical and structural properties of polyethylene Oxide**”, in national conference on Physics & Chemistry of Functional Materials-19, from 21st -22nd February 2019 at GITAM university, Hyderabad.
4. Participated & Presented paper entitled “**Experimental and theoretical characterization of Ethyl 1-benzyl-2-(thiophen-3-yl)-1H-benzo[d]imidazole-5-carboxylate**” in national conference on Physics & Chemistry of Functional Materials-19, from 21st - 22nd February 2019 at GITAM university, Hyderabad.
5. Participated & Presented paper entitled “**Electroplating Aluminum using the method of electrolysis**” in national conference on Emerging Trends in High Energy Physics at National College Jayanagar, Bangalore, 29th June – 1st July 2015.
6. Participated & Presented paper entitled “**Conductivity Studies on polyaniline-silicate polymers**” in national conference on Emerging Trends in High Energy Physics at National College Jayanagar, Bangalore, 29th June – 1st July 2015.
7. Attended a conference on "**Trends in Materials Science**" at National College Jayanagar, Bangalore, 18th September 2014.

🌐 INTERNATIONAL:

1. Participated and presented a paper entitled “**Structural, Optical, Characterization and photocatalytic behavior of Cr₂O₃ catalyst via thermal decomposition method.**” at the

international conference “2nd International Symposium on “Modeling of Crystal Growth Processes and Devices”, organized by SSN Research Center, SSN College of Engineering, SSN Institutions Kalavakkam, Chennai-603110, Tamilnadu, India, held on 5th-8th, July 2021.

2. Participated and presented a paper entitled **“Synthesis and characterization of Anatase Titanium Dioxide Nanoparticles with High Photo-catalytic Activity by facile solution combustion method.”** at the international conference “International Conference on Sustainable Materials & Technologies for Bio & Energy Applications (SMTBEA-2021)”, organized by SSN Research Center, SSN College of Engineering, SSN Institutions Kalavakkam, Chennai-603110, Tamilnadu, India, held on 19th-20th, May 2021.
3. Participated and presented a paper entitled **“structural, morphological & photocatalytic activity of nickel oxide nano particles”** at the international conference “Materials for Environment, Sustainable Society and Global Empowerment” – 2019, organized by Department of Nanotechnology, Visvesvaraya Technological University, Muddenahalli, Chikkaballapur – 562 101, held on 19th-20th, December,2019.
4. Participated and presented a paper entitled **“synthesis and characterization of multiwalled carbon nanotubes by chemical vapor deposition over calcium carbonate catalyst”** at the international conference “Materials for Environment, Sustainable Society and Global Empowerment” – 2019, organized by Department of Nanotechnology, Visvesvaraya Technological University, Muddenahalli, Chikkaballapur – 562 101, held on 19th-20th, December,2019.
5. Participated and presented a paper entitled **“Synthesis, characterization, and antibacterial activities of thermally treated potassium dichromate against bacillus subtilis and staphylococcus aureus”** at the international conference “Advanced Functionals Materials for Energy Environment and Health Care (AFMEEHC)-2019” organized by Center for Materials science and Technology, University of Mysore, – 570006, held on 18th-20th, March,2019.
6. Participated and presented a paper entitled **“Optical, electric & di-electric properties of nano doped liquid crystals”** at the international conference “Advanced Functionals Materials for Energy Environment and Health Care (AFMEEHC)-2019” organized by Center for Materials science and Technology, University of Mysore, – 570006, held on 18th-20th, March,2019.
7. Participated and presented a paper entitled **“synthesis, characterization, and antibacterial activities of thermally treated potassium chromate against bacillus subtilis and staphylococcus aureus”** at the international conference “Advanced Functionals Materials for Energy Environment and Health Care (AFMEEHC)-2019” organized by Center for Materials science and Technology, University of Mysore, – 570006, held on 18th-20th, March,2019.
8. Participated & presented a paper entitled **“Structural and Morphological Studies on thermally**

decomposed Potassium chromate and Potassium dichromate” at international conference on Advanced Ceramics and Nano Materials for Sustainable Development from 19th September to 21st September 2018.

Webinar Series/Online Series:

1. Participated four-day International Workshop on **“X-ray Diffraction Analysis”** organized by Department of Physics, Siddaganga Institute of Technology held on 16th -20th October 2020.
2. Participated one day Webinar on **“Energy research proposal writing Opportunities, challenges and Myths”**, organized by Department of Basic Science, Sri Krishna Institute of Technology held on June 12th, 2020.
3. Participated two-day Webinar on **“Analytical techniques for determining elemental constituents”** organized by Department of Chemical Engineering, Siddaganga Institute of Technology held on 09th June 2020.
4. Participated one day the Webinar on **“Gateway of research”**, Organized by Department of Physics, Aswathaiah Esthuri Sanjeevamma National Degree College, Goribidnur held on 09th June 2020.
5. Participated in the International Webinar on **“Materials Science”**, organized by Department of Post Graduate Studies & Research in Physics, The National College Jayanagar held on May 28th 2020.
6. Participated five-day Webinar on **“Energy research – Webinar series – II”**, organized by Satyabhama Institute of Science and Technology, The Centre for Nanoscience and Nanotechnology (CNSNT), Chennai held on May 26th-30th, 2020.
7. Participated one day National Webinar on **“Two Dimensional Materials for Diverse Applications”**, Organized by Department of Basic Sciences, Cambridge Institute of Technology, Bengaluru, held on May 23rd, 2020.
8. Participated one day webinar on IEEE Bangalore Section Researchers Forum Online Workshop On **“IEEE Reference Management Tool for Research Articles and Thesis Writing”**, Jointly Organized by IEEE Bangalore Section, IEEE SIGHT held on May 20th, 2020.
9. Participated one-week online Webinar on **“Virtual Talk Series on Advanced Materials” (VTSAM-2020)** conducted by IEEE AcSIR-CSIO Nanotechnology Council Student Branch Chapter with the support of the IEEE AcSIR-CSIO Student Branch Chandigarh, held on May 11th-17th, 2020
10. Participated three days online Webinar on **“Conceptual and Applied Physics”**, Jointly Organized by Department of Physics, School of Science, RK University & Department of Nanoscience & Advanced Materials, Saurashtra University, held on May 05th-08th, 2020.