BIODATA

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ANNEXURE - I

Academic Qualifications:

Sl. No	***Degree***	***University/ Institution***	***Year***	***Subjects***
1.	PhD. *	Korea Institute of Science & Technology (KIST), KOREA	2010	Nano-Materials Science & Engineering
2.	M Tech	JNTU Hyderabad, INDIA	2005	Energy Systems
3.	B Tech	JNTU Hyderabad/SRTIST, INDIA	2003	Chemical Engineering

* Thesis Title: A study on the catalytic performance of Nickel/ceria-Zirconia anode cermet's for internal reforming SOFCs.

Positions held (in chronological order)

Sl. No	***From***	***To***	***Name of Organization***	***Position Held***
1.	09-2010	08-2011	Korea Institute of Science and Technology (KIST), Seoul, South Korea	Visiting Scientist
2.	09-2011	05-2013	Korea Institute of Science and Technology (KIST), Seoul, South Korea	STAR Post-Doc Fellow
3.	05-2013	05-2014	California Institute of Technology, (Caltech), California, USA	Post-Doc Scholar
4.	04-2014	04-2015	National Institute of Technology, Warangal (NITW), Warangal, India	DST-INSPIRE Faculty
5.	04-2015	09-2019	National Institute of Technology, Karnataka (NITK), Surathkal, India	Assistant Professor
6.	09-2019 07-2021	10-2023 11-2023	National Institute of Technology, Karnataka (NITK), Surathkal, India	Associate Professor Associate Dean Research & Consultancy-2, NITK
7.	10-2023 11-2023	Till Date Till Date	National Institute of Technology, Karnataka (NITK), Surathkal, India	Professor Associate Dean Corporate Relations, NITK

ANNEXURE - II

Awards and Honors

- One of the Top 25 Hottest articles in Journal of European Ceramic Society, Science Direct. 2008.
- Overseas Research Exchange Support Program, University of Science and Technology, Korea. 2009.
- Outstanding Academic Excellence Award (Ph.D.), Korea Institute of Science and Technology, Korea. 2010.
- STAR Post-Doc Fellowship, Korea Institute of Science and Technology, Korea.2011.
- Post-Doc Fellowship, California Institute of Technology, USA.2013
- DST-INSPIRE Faculty Award, Ministry and Department of Science and Technology, India. 2014.
- Life Member, Indian Institute of Chemical Engineers. 2016
- DST – SERB, Early Career Research Award Department of Science and Technology, India. 2017.
- Associate Fellow, Telangana Academy of Sciences, Telangana, India. 2018
- SERB Impacting Research Innovation and Technology (IMPRINT II) Project, India 2019.
- SERB- Core Research Grant, India. 2020.
- Fellow, Indian Institute of Engineers. 2022.

ANNEXURE - III

Fellowship/Membership of Professional Bodies

- Fellow, Institution of Engineers (India F- 1292842)
- Member, Royal Society of Chemistry, London (MRSC – 642876)
- Associate Fellow, Telangana Academy of Sciences
- Life member, Indian Institute of Chemical Engineer.
- Life member, Catalysis Science of India

ANNEXURE - IV

Significant Contribution

- DST INSPIRE Faculty Project “Future Materials for Solid-Oxide Fuel/ Electrolysis Cells” 2014-2019.
- KIST, KOREA Project" Decreasing the Sintering Temperature of SOFC Electrolytes” 2016-2017.
- KIST, KOREA Project “Development of Quaternary Ceria - Based Catalysts” 2017-2019
- SERB, Early Career Research Award “Development of Novel SOFC Electrolyte Materials” 2017-2020.
- IMPRINT II “Demonstration of SOEC technology for co-electrolysis of CO_2 and H_2O” 2019-2022
- SERB – CRG “Development of Electrospun ceria-based nanofibers for Diesel soot oxidation activity” 2020-2023.

ANNEXURE - V

R&D Projects.

Sl. No.	*Title of Project*	*Project Category*	*Funding Agency*	*Project Cost (Lakhs)*	*Role as Defined*
1.	Development of Electrospun Ceria-based Nanofibers for Diesel Soot Oxidation Activity	SERB-CRG	SERB (2020-2023)	36.57 *Completed*	Principal Investigator
2.	Future Materials in Solid Oxide Fuel Cells and Electrolytes	DST-INSPIRE	Faculty Award (2013-2019) DST, India	35 *Completed*	Principal Investigator
3.	Decreasing the Sintering temperature of Solid-Oxide Fuel Cell Electrolytes	KIST-ALUMNI	KIST, Korea (2016-2017)	11.39 *Completed*	Principal Investigator
4.	Development of Quaternary Ceria-Based Catalysts for Soot Oxidation Activity	KIST-ALUMNI	KIST, Korea (2017-2019)	16.61 *Completed*	Principal Investigator
5.	Development of Novel SOFC Electrolyte Materials with enhanced Ionic Conductivity	DST-SERB	SERB- Early Career Research Award (2017-2020) DST, SERB India	51.13 *Completed*	Principal Investigator
6.	Development and Demonstration of solid oxide electrolysis cell technology for co-electrolysis of CO_2 and H_2O for the production of syngas	SERB - IMPRINT II	SERB/IMPRINT	95.45 *Completed*	Principal Investigator
7.	Methanol as a clean energy source for India	University Grants Commission	University Grants Commission	91.18 *Completed*	Co-PI

ANNEXURE - VI

Patents Filed/ Granted

Sl. No.	*Title*	*Application / Patent No.*	*Filed (Date)*	*Granted (Date)*	*Names of inventors*
1.	LAMOX Materials as Soot Oxidation Catalysts for Diesel Particulate Filters	202441053139	11/07/2024	Published	Hari Prasad Dasari, Sunaina S Patil, M B Saidutta, Ashmita Das, Anugraha Renny
2.	Transitional Metal-Doped Ceria-Praseodymium Based Nanofiber Catalysts Synthesised via Electrospinning Technique for Diesel Soot Oxidation	202441052188	08/07/2024	Published	Hari Prasad Dasari, Sunaina S Patil
3.	A Method and Composition for Soot Oxidation in a Diesel Particulate Filter	Indian Patent No: 375403	07/12/2018	25/08/2021	Dr. Hari Prasad Dasari, Chaithra Shenoy, Atmuri Shourya
4.	Solid oxide fuel cell anode material as a soot oxidation catalyst	Indian Patent No:534622	30/07/2018.	24/04/2024	Dr Hari Prasad Dasari, Akhil Vijay M P, Anjana P Anantharaman
5.	Fabrication and structure of low-and intermediate temperature operating SOFC by spin coating and low-temperature sintering	Korea Application No: 1020110117652 KR20130052286	11/11/2011	12/09/2013	J.-W. Son, H.-W. Lee, J.-H. Lee, E.-O.Oh, B.-K.Kim, S.Y. Park, D.Hari Prasad
6.	Oxide fuel cell having pore – gradient structure for forming thin film electrolyte and the fabrication thereof.	Korean Patent No: 101041933	19/03/2009	16/06/2011	J.-W. Son, J.-H. Lee, N.-H. Song, J.-C. Kim, D. Hari Prasad, E.-O. Oh, H.C. Kim, H.-R. Kim.

ANNEXURE - VII

Google Scholar Citation Data

Cited By	*All*	*Since 2020*
Citations	2054	983
h-index	23	16
i_{10}-index	38	30

ANNEXURE - VIII

Ph.D./ M.Tech/ B.Tech Guided

Number of PhDs Guided: 4 completed, 3 Ongoing

Number of M Techs Guided: 25 completed, 1 Ongoing

Number of M Tech (Research): 2 completed,

Number of B Techs Guided: 12 Batches completed, 1 Ongoing

List of the PhDs and their Research Projects

Sl. No	***Name***	***Year***	***Title of the project***
1.	Anjana PA (CH15F12)	2019	A Study on Multi-Doping Effect on Ceria-Based Materials for Soot Oxidation Activity
2.	Irfana Shajahan (CH16F02)	2021	A Study on Sintering Behavior of Praseodymium Doped Ceria Based SOFC Electrolytes
3.	Sunaina S Patil (197CH001)	2023	A study on the effect of Transition metal oxides on Ceria Praseodymium catalyst for Soot Oxidation Activity and its Kinetics
4.	Atmuri Shourya (187CH001)	2024	Ceria-Manganese Mixed Oxides as a catalyst for Soot and CO oxidation Activity
5.	Rahul Kumar Shirasangi (2170121)	Ongoing	A Study on Solid Oxide Electrolysis Cells for Co-electrolysis of CO_2 and H_2O.
6.	Nikhil Siringi	Ongoing	A Study on Ceria-based materials as supercapacitors
7.	Sreereshmi	Ongoing	A Study on polymer based nanofibers and its application

List of M Techs and their Research Projects

Sl. No	***Name***	***Year***	***Title of the project***
1.	Avinash Nayak (223CG001)	2024	Ce-(Cs/Mg/Ca/Pr) MIXED OXIDE CATALYSTS FOR SOOT OXIDATION ACTIVITY AND KINETIC STUDIES
2.	Riya Kamath S (223CG009)	2024	A study on effect of Cobalt doped Ceria nanofibers as catalyst for soot oxidation activity
3.	Theertha C (222ES025)	2024	A Study on the Application of Diesel Soot as a Supercapacitor
4.	Adrija Pallipad (222ES001)	2024	A study on the Fe-doped Ceria Praseodymium Nanopowder as a catalyst for supercapacitor application
5.	Farhan O P (2232G003)	2024	A STUDY ON CO2 ELECTROLYSIS IN AN ELECTROLYTE SUPPORTED (NiO-YSZ/NiO-SDC/ScSZ/LSCF-GDC/LSCF) SOLID OXIDE ELECTROLYSIS CELL
6.	Gajbhiye Kunal Ravindra (222CG004)	2024	A study of Ce-Co-Ce Mixed oxides coated cordierite substrate for CO Oxidation Activity
7.	Aasif Ahmed Wagay (212ES002)	2023	Effect of NiO-PDC and NiO-YSZ catalysts coated on Cordierite Substrate for CO Oxidation

8.	Maya R (212ES022)	2023	Effect of Copper doping into Ceria-Dysprosium nanofibers for soot oxidation activity
9.	Debashreeta Singha (202CG002)	2022	Dilatometer and Electrical Conductivity studies over SFM based materials under reduced atmosphere
10.	Pranathi Samineni (202CG008)	2022	Ceria coating on cordierite structure and its soot oxidation activity
11.	Raunak Kumar (2020ES009)	2022	A Study on the Effect of Ceria-Terbium based nano fiber catalysts on soot oxidation activity
12.	Jampala Pasyanthi (192285CG007)	2021	Study of sintering behavior and electrical conductivity of LSGM based electrolyte materials for Solid Oxide Electrolysis Cell
13.	Anugraha P Renny (192709ES002)	2021	A Kinetic study on LAMOX based materials for soot oxidation reactions
14.	Srijith (192ES010)	2021	Electrical Conductivity Studies on LAMOX Based Electrolyte Materials for Solid Oxide Cells
15.	Ashmita Das (M Tech)	2020	LAMOX Materials
16.	Kirti Rajvanshi (m Tech)	2020	Solubility limit of Nano Particles (NiO PDC, SRT-PDC)
17.	Sunaina Patil (173PC500)	2019	A Study on Effect of Neodymium Doped Ceria as A Catalyst for Soot Oxidation Activity
18.	Goverdhan P (172PC004)	2019	Synthesis And Characterization of Ag/Pr Doped Ceria (Ag/PDC) Based Materials as A Catalyst for Soot Oxidation Activity.
19.	Chaitra Shenoy (172PC002)	2019	SOFC Cathode-Based Perovskite (Bscf, Lscf and Lscm) For Soot Oxidation Activity.
20.	Akhil Vijay M P (16PC01F)	2018	A Study on Soot Oxidation Activity of Nickel and Nickel Oxide Synthesized by EDTA -Citrate Method
21.	Rahul M R (15PC08F)	2017	Synthesis And Characterization of Gadolinium Doped Ceria and Its Soot Oxidation Activity
22.	Geethu J (15PC04F)	2017	Synthesis And Characterization of Sm Doped Ceo2 Using EDTA Citrate Method and Soot Oxidation Activity
23.	Jyotipriya (14PD03F)	2016	Synthesis And Characterization of Ceria-Zirconia Photo catalysis
24.	Mohammed Rishab (14PC11F)	2016	Synthesis Ana Characterization of CeO_2 Nano-Powder Using EDTA Citrate-Method and Its Cr (Vi) Adsorption Studies
25.	Atmuri Shourya (14PC03F)	2016	Synthesis And Characterization of Gd_2O_3 Nano-Power Using EDTA Citrate Method and Its Cr (Vi) Adsorption Studies

ANNEXURE - IX

Publications (Journals and Books)

Publications – Journals

1. **Potential of CoMn2O4 spinel as soot oxidation catalyst and its kinetics thereof**
   R Nitya, Sunaina S Patil, Hari Prasad Dasari, Harshini Dasari, S Nethaji
   Scientific Reports, 15 (1), 1174, 2025

2. **Diesel soot oxidation over Mn-Pr-Ce oxide catalysts: structural changes and the impact of Mn doping**
   Sunaina S Patil, Hari Prasad Dasari, Rahukkumar Shirasangi, Harshini Dasari
   Materials Advances, 2025

3. **The catalytic effect of chromium-doped ceria-praseodymium on soot oxidation activity and its kinetics**
   Sunaina S Patil, Hari Prasad Dasari
   Environmental Science and Pollution Research, 1-13, 2024

4. **Soot oxidation activity and kinetics of Ce0.9M0.1O2 (M = Cs, Mg, Ca) catalysts: Impact of Cs doping in ceria and impact of nanorods on catalytic activity**
   Avinash S Nayak, Sunaina S Patil, Hari Prasad Daari, Deepali Telaginatot, Memorable Rynjah, Srivani Cheruku
   Chemical Engineering Research and Design, 208, 910-920, 2024

5. **Current- Voltage (i-V) characteristics of electrolyte-supported (NiO-YSZ / NiO-SDC/ScSZ/LSCF-GDC/LSCF) solid oxide electrolysis cell during CO2 / H2O co-electrolysis**
   Rahulkumar Shirasangi, lakhanlal, Hari Prasad Dasari, M B Saidutta
   Chemical Physics Impact, 9, 100670, 2024

6. **Ceria-Terbium-based electrospun nanofiber catalysts for soot oxidation activity and its kinetics**
   Sunaina S Patil, Raunak Kunar, Hari Prasad Dasari
   Journal of Taiwan Institute of Chemical Engineers, 159, 105459, 2024

7. **Dip coating of Ceria-manganese mixed oxides on cordierite and its CO oxidation activity**
   Atmuri Shourya, Hari Prasad Dasari, Aasif Ahmad Wagay
   Chemical Papers, 78, 5113-5129, 2024

8. **Electrochemical characterization of electrolyte supported solid oxide electrolysis cell during CO2 / H2O co-electrolysis**
   Rahulkumar Shirasangi, Hari Prasad Dasari, M B Saidutta,
   Journal of Solid State Electrochemistry 28, 1773-1784, 2024

9. **Synthesis of graphene nanosheets from coffee ground waste and its incorporation to mixed-phase TiO_2 as photocatalyst in anthracene degradation**
   MR Pratama, AA Dwiatmoko, M Khalil, HP Dasari, RT Yunarti
   Environmental Nanotechnology, Monitoring & Management, 100918, 2024

10. **An investigation on copper-loaded ceria-praseodymium catalysts for soot oxidation activity and its kinetics**
    SS Patil, HP Dasari
    Brazilian Journal of Chemical Engineering, 1-17, 2024

11. **Fabrication of praseodymium-doped ceria (PDC) films by slurry spin-coating technique and its structural, morphological, and optical properties**
    MM Ravindra, R Shirasangi, HP Dasari, MB Saidutta
    Applied Surface Science Advances 16, 100413, 2023

12. **Formation of nano-rod structures in manganese-rich ceria–manganese mixed oxides and their soot oxidation activity**
    A Shourya, HP Dasari

Nano-Structures & Nano-Objects, 34, 100970,2023

13. **Manganese doped Ceria ($Ce_{1-x}Mn_xO_{2-\delta}$ (x= 0–0.3)) catalysts synthesized by EDTA–Citrate method for soot oxidation activity**
    A Shourya, HP Dasari
    Chemical Papers, 1-16, (2022)

14. **Electrical conductivity studies on LAMOX-based electrolyte materials for solid oxide fuel cells.**
    Srijith, Lakhanlal, A Das, HP Dasari, MB Saidutta
    Ceramics International, 48,19(part B) (2022)29229-29237

15. **Effect of Ag loading on praseodymium doped ceria catalyst for soot oxidation activity**
    Pandurangappa Govardhan, Anjana Payyalore Anantharaman, Sunaina Shivasharanappa Patil, Hari Prasad Dasari, Harshini Dasari, Atmuri Shourya
    Korean Journal of Chemical Engineering, 39(2),328-342 (2022)

16. **A Negative Effect of Niobium Doped Ceria on Soot Oxidation Activity.**
    SS Patil, S Naik, MD Ramesh, H Dasari, HP Dasari
    Chemical Engineering & Technology. 45 (3) 517-525 (2022)

17. **Effect of morphology and oxidation state of nickel on diesel soot oxidation activity.**
    MP Akhil Vijay, Sunaina S Patil, DR Madhura, Anjana P Anantharaman, P Gouramma, Hari Prasad Dasari, SB Arya, Harshini Dasari,
    Materials Today: Proceedings, 57(4)1865-1870 (2022)

18. **Printex-U Soot Oxidation Kinetic Behaviour over Alumina and Quartz**
    Shweta Ganiger, Sunaina S Patil, Hari Prasad Dasari, R Priyanka, Shreya Kollimarla
    Chemical Engineering Science 247, 117016, (2022).

19. **Shrinkage Behavior, Thermal Expansion Behavior, and Electrical Conductivity Study of Samarium Doped Ceria Electrolytes**
    L Lakhanlal, HP Dasari, MB Saidutta
    ECS Transactions 103 (1), 1239, (2021)

20. **Dilatometer studies on LAMOX based electrolyte materials for solid oxide fuel cells**
    A Das, I Shajahan, HP Dasari, MB Saidutta, H Dasari
    Materials Chemistry and Physics 258, 123958 (2021)

21. **Potential of pyrochlore structure materials in solid oxide fuel cell applications**
    AP Anantharaman, HP Dasari
    Ceramics International 47(4) 4367-4388 (2021).

22. **Promotional effect of nickel addition on soot oxidation activity of Ce 0.9 Pr 0.1 O 2 oxide catalysts**
    K Rajvanshi, SS Patil, HP Dasari, MB Saidutta, H Dasari
    Chemical Papers 74 (12), 4581-4592 (2020)

23. **Effect of sintering aids on sintering kinetic behavior of praseodymium doped ceria-based electrolyte material for solid oxide cells**
    I Shajahan, HP Dasari, MB Saidutta
    International Journal of Hydrogen Energy 45 (48), 25935-25944 (2020)

24. **Dilatometer studies of praseodymium doped ceria: Effect of synthesis methods on sintering behaviour**
    I Shajahan, HP Dasari, P Govardhan

Materials Chemistry and Physics, 122211 (2020)

25. **Studies on the solid oxide cell perovskite electrode materials for soot oxidation activity**
    CS Shenoy, SS Patil, P Govardhan, A Shourya, HP Dasari, MB Saidutta
    Emission Control Science and Technology 5 (4), 342-352 (2019)

26. **Effect of fuel and solvent on soot oxidation activity of Ceria nanoparticles synthesized by solution combustion method**
    Sunaina Patil, Hari Prasad Dasari, *Materials Science for Energy Technology*, 2 (2019) 485-489 (2019)

27. **Effect of Nd-doping on soot oxidation activity of Ceria-based nanoparticles synthesized by Glycine Nitrate Process**
    SS Patil, HP Dasari, H Dasari, *Nano-Structures & Nano-Objects* 20, 100388 (2019)

28. **Effect of ionic radius on soot oxidation activity for ceria based binary metal oxides**
    Anantharaman AP, Dasari HP, Dasari H, Babu G UB, *Asia-PacJChem Engg (2019)*

29. **Surface morphology and phase stability effect of ceria –Hafnia (CHx)binary metal oxides on soot oxidation activity**
    Anajna P Anantharaman, Hari Prasad Dasari, Harshini Dasari, G Uday Bhaskar Babu, *Applied Catalysis A General* 566 (2018) 181-189

30. **Praseodymium doped ceria as electrolyte material for IT-SOFC applications**
    Irfana Shajahan , Junsung Ahn, Parvathi Naira , Srikar Medisetti , Sunaina Patil , V. Niveditha , G. Uday Bhaskar Babu , Hari Prasad Dasari, Jong-Ho Lee, *Material Chemistry and Physics* 216 (2018) 136-142

31. **Ceria-samarium binary metal oxides: A comparative approach towards structural properties and soot oxidation activity**
    Anjana P Anantharaman, J Geethu, Hari Prasad Dasari, Jong-Ho Lee, Harshini Dasari, G Uday Bhaskar Babu, Molecular Catalysis 451 (2018) 247-254

32. **Effect of synthesis method on structural properties and soot oxidation activity of gadolinium-doped ceria**
    Anjana P. Anantharaman, Hemanth J. Gadiyar, Mythili Surendran, A. Sumadhura Rao, Hari Prasad Dasari, Harshini Dasari, G. Uday Bhaskar Babu, *Chemical Papers* 72 (2018) 3179-3188

33. **Soot Oxidation Activity of Redox and Non-Redox Metal Oxides Synthesized by EDTA–Citrate Method**
    Anjana P Anantharaman, Hari Prasad Dasari, Jong-Ho Lee, Harshini Dasari, G Uday Bhaskar Babu, Catalysis Letters 147 (2017) 3004-3016

34. S**ynthesis of GDC electrolyte material for IT-SOFCs using glucose & fructose and its characterization**
    Medisetti Srikar, Ahn Junsung, Patil Sunaina, Goel Apoorva, Bangaru Yaswanth, Sabhahit Gautam V., Babu G. Uday Baskar, Lee Jong-Ho, Dasari Hari Prasad, *Nano Structure & Nano Objects* 11 (2017) 7-12

35. **Solubility Limits of Ceria-Zirconia-Lanthana Solid-Solutions**
    Zenab Abbas, Mythili Surendran, PA Anjana, PK Jidev, Harshini Dasari, N Sudhakar Naidu, S Anandhan, K Udaya Bhat, G Uday Bhaskar Babu, Hari Prasad Dasari, *Materials Today: Proceedings* 4 (2017) 9360-9364

36. **Record-low sintering-temperature (600°C) of solid-oxide fuel cell electrolyte**
    Hari Prasad Dasari, Hyoungchul Kim, Jong-Ho Lee, Kiyong Ahn et al, *Journal of Alloys and Compounds* 672 (2016) 397-402

37. **Role of Ceria-Zirconia solid-solution with high oxygen storage capacity in cermet anodes of solid oxide fuel cells**

S-I.Lee, M.-B. Choi, D. Hari Prasad, et al, *Journal of Electrochemical Society* 161 (2014) 883-888

38. **Synthesis, Sintering and conductivity behavior of ceria doped Scandia stabilized zirconia**
    D. Hari Prasad, J. Ahn, K. Ahn et al
    Solid State Ionics 263 (2014) 103-109

39. **Fabrication of thin film gadolinium-doped ceria (GDC) inters diffusion barrier layers for intermediate-temperature solid oxide fuel cells (IT-SOFCs) by chemical solution deposition (CSD)**
    E.-O. Oh, C.-M. Whang, Y-R. Lee, S.Y. Park, D. Hari Prasad et al
    Ceramics International 40 (2014) 8135-8142

40. **Electrochemical characterization of Ni-Yttrium stabilized zirconia electrode for hydrogen production in solid-oxide fuel cells**
    D. Hari Prasad, S.Y. Park, K.-J.Yoon et al
    Journal of Power Sources 240(2013) 721-728

41. **Hydrogen production from water splitting reaction based on RE-doped Ceria-Zirconia solid-solutions**
    D. Hari Prasad, K. Ahn, J.-H. Lee et al
    International Journal of Hydrogen Energy 38 (2013), 6097-6103

42. **Effect of sintering aid (CoO) on transport properties of Nano-crystalline Gd doped ceria**
    A.K. Baral, D. Hari Prasad, B.-K. Kim, J.-H. Lee
    Journal of Alloys and Compounds 575 (2013) 455-460

43. **Degradation mechanism of electrolyte and air electrode in solid-oxide electrolysis cells operating at high polarization**
    J.H. Kim, H.-I. Ji, D. Hari Prasad, K.J. Yoon et al
    International Journal of Hydrogen Energy, 38 (2013) 1225-1235

44. **Extremely thin bi-layer electrolyte for solid oxide fuel cells (SOFCs) fabricated by chemical solution deposition (CSD)**
    E.O.Oh, C.M.Whang, Y.R.Lee, S.Y.Park, D.Hari Prasad, H.-W. Lee et al
    Advance materials 24 (2012) 3373-3377

45. **Structural characterization and catalytic activity of Ce0.65Zr0.25RE0.1O2-δ Nano-crystalline powders by glycine nitrate process**
    D.Hari Prasad, S.Y. Park, J.-H. Lee et al
    The Journal of Physical Chemistry C, 116 (2012) 3467- 3476

46. **Effect of steam content on nickel Nano-particle sintering and methane reforming activity of Ni-CZO anode cermet's for internal reforming SOFCs**
    D. Hari Prasad, S.Y. Park, J.-H. Lee et al
    Applied Catalysis A General, 411 (2012) 160-169

47. **Synthesis of Nano-crystalline La1-xSrxCoO3-δ perovskite oxides by EDTA-Citrate complexion process and its catalytic activity for soot oxidation**
    D. Hari Prasad, S.Y. Park, J.-H. Lee et al
    Applied catalysis A General 447 (2012) 100-106

48. **Role of multivalent Pr in the formation and migration of oxygen vacancy in Pr doped Ceria: experimental and first principles investigations**
    K. Ahn, D.S. Yoo, D. Hari Prasad, J.-H. Lee et al
    Chemistry of Materials 24(2012) 4261-4267, Journal Name: chemistry of materials

49. **Cobalt oxide co-doping effect on the sinter ability and electrical conductivity of Nano-crystalline Gd-doped ceria**
D. Hari Prasad, S. Y. Park, J.-H. Lee, et al
Ceramics International 38 (2012) 497-500

50. **A comparative study of catalytic partial oxidation of methane over CeO_2 supported metallic catalysts**
K. Ahn, Y.-C. Chang, J. H. Oh, D. Hari Prasad, J.-H.Lee et al
Journal of Nano Science and Technology, 11(2011) 6414-6419

51. **Effect of nickel Nano-particle sintering on methane reforming activity of Ni-CGO cermet anodes for internal steam reforming SOFCs**
Dr. Hari Prasad, H.-I. Ji, J.-H. Lee et al,
Applied Catalysis B: Environmental, 101 (2011) 531-539

52. **A significant enhancement in sintering activity of Nano-crystalline $Ce_{0.9}Gd_{0.1}O_{1.95}$ powder synthesized by glycine nitrate process**
Dr. Hari Prasad, J.-W. Son, J.-H. Lee et al,
Journal of Ceramic Processing Research, 11 (2010) 523-526

53. **Correlation between the powder properties and sintering behaviors of Nano-crystalline gadolinium doped ceria**
D. Hari Prasad, J.-H. Lee, J.-S. Park et al,
Journal of Ceramics Processing Research 11(2010) 176- 183

54. **Superior sinter ability of Nano-crystalline gadolinium doped ceria powders synthesized by co-precipitation method**
D. Hari Prasad, H.-R. Kim, J.-H. Lee et al,
Journal of Alloys and Compounds 495 (2010) 238-241

55. **Electrochemical Behavior of Ni-CZO Cermet Anodes Prepared by Glycine Nitrate Process**
DH Prasad, HR Kim, JS Park, HW Lee, JH Lee,
ECS Transactions 25 (2009) 1921-1929

56. **Chemical synthesis and characterization of $Ce_xZr_{1-x}O_2$ powders by a modified sol-gel method**
D. Hari Prasad, J.-H. Lee, J.-S. Park et al,
Journal of Ceramic Processing Research, 10 (2009) 748-752

57. **Superior compositional homogeneity and long-term catalytic stability of Ni–$Ce_{0.75}Zr_{0.25}O_2$ cermet's prepared via glycine nitrate process**
D. Prasad, HR Kim, JW Son, BK Kim, HW Lee, JH Lee,
Catalysis Communications, 10 (2009) 1334-1338

58. **Single-step synthesis of Nano-sized NiO–$Ce_{0.75}Zr_{0.25}O_2$ composite powders by glycine nitrate process**
D. Prasad, HY Jung, HG Jung, BK Kim, HW Lee, JH Lee,
Materials Letter 62 (2008) 587-590

59. **Synthesis of Nano-crystalline $Ce_{0.9}Gd_{0.1}O_{1.95}$ electrolyte by novel sol–gel thermolysis process for IT-SOFCs**
D. Prasad, JW Son, BK Kim, HW Lee, JH Lee,
Journal of the European Ceramic Society, 28 (2008) 3107-3112

60. **Hydrogen production by catalytic decomposition of methane over Ni/SiO_2.**

A Venugopal, SN Kumar, J Ashok, D. Prasad, VD Kamari, KBS Prasad
International Journal of Hydrogen Energy, 32 (2007) 1782-1788

Books: Internal Reforming of Methane over Ni-based SOFC anodes.
Dasari Hari Prasad, Jong-Ho Lee
LAP Lambert Academic Publishing GmbH & Co. KG, Germany.2012.

ANNEXURE - X

Conference Proceedings and Papers

- **Solubility Limits of RE-doped Ceria-Zirconia Solid-Solutions**
  Surendran Mythili, Abbas Zenab, D. Hari Prasad,
  Materials Today: Proceedings

- **Internal steam reforming of methane over Ni-GDC anode particles prepared by glycine nitrate process for SOFC applications**.
  D. Hari Prasad, H.-R. Kim, J.-H. Lee et al.,
  10th Asian Hydrogen Energy Conference (2009) 217-233.

Conference Presentation

- **Iso-Conversional Soot Oxidation Kinetic Study on Chromium Doped Ceria- Praseodymium Catalyst System**
  Sunaina S Patil , Hari Prasad Dasari
  International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2023), 24-25 Nov., 2023, NIT Warangal, India
  Received best Presentation Award

- **Effect of Manganese-Doped Ceria-Praseodymium Catalyst on Soot Oxidation Activity**
  Sunaina S Patil , Hari Prasad Dasari
  International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2023), 24-25 Nov., 2023, NIT Warangal, India

- **The catalytic effect of transition metal oxides on Soot Oxidation Activity and its Kinetics**
  Sunaina S Patil, Hari Prasad Dasari, Riya Kamath S
  Two-day National Level Conference on Advanced Materials for Environmental Sustainability (AMES-2023), October 12-13 2023, MIT, MAHE, Manipal.

- **Effect of $Ce_{0.5}Pr_{0.5}O_{2-\delta}$ coating on honeycomb cordierite structure for soot oxidation activity**
  Sukesh P, Supreetha Reddy R, Pamarthi Krishnakant, Avinash S Nayak, Sunaina S Patil, Hari Prasad Dasari
  Two-day National Level Conference on Advanced Materials for Environmental Sustainability (AMES-2023), October 12-13 2023, MIT, MAHE, Manipal.

- **Yeast templet-based synthesis of ceria and its soot oxidation kinetics**
  Pranathi Samineni**,** Shourya Atmuri, Sunaina S Patil, Hari Prasad Dasari
  International Conference on Biotechnology, Sustainable Bioresources and Bioeconomy (BSBB-2022),

IIT Guwahati, December 7-11, 2022.

- **Soot $PM_{2.5}$ oxidation kinetics over CeO_2 synthesized using Saccharomyces Cerevisiae**
  Pranathi Samineni**,** Sunaina S Patil, Shourya Atmuri, Hari Prasad Dasari
  International Conference on Biotechnology, Sustainable Bioresources and Bioeconomy (BSBB-2022),
  IIT Guwahati, December 7-11, 2022.

- **Honey-based fabrication of Ceria-Dysprosium oxides nanofibers by electrospinning technique and its soot oxidation activity.**
  Madhura D R, Sunaina S Patil, Hari Prasad Dasari
  International Conference on Biotechnology, Sustainable Bioresources and Bioeconomy (BSBB-2022),
  IIT Guwahati, December 7-11, 2022.

- **Coating and characterization of Brewer's yeast template-based synthesis of ceria/cordierite –**
  Pranathi Samineni**,** Shourya Atmuri, Sunaina S Patil, Hari Prasad Dasari
  International Conference on Biotechnology, Sustainable Bioresources and Bioeconomy (BSBB-2022),
  IIT Guwahati, December 7-11, 2022.
  Received best Poster and Flash Talk Award

- **A negative effect of Niobium doped Ceria on soot oxidation activity**
  Sunaina S Patil, Sahana Naik, Madhura D R, Harshini Dasari, Hari Prasad Dasari
  (International Chemical Engineering Conference 2021, 100 Glorious Years of Chemical Engineering & Technology, September 16-19, 2021, Department of Chemical Engineering, NIT Jalandhar, Punjab, India)
  Received best Paper Award

- **Effect of Morphology and the Oxidation State of Nickel on Diesel Soot Oxidation Activity**
  Akhil Vijay M P, Sunaina S Patil, Madhura D R, Anjana P Anantharaman, Gouramma P, Hari Prasad Dasari, S.B. Arya, Harshini Dasari
  (International Chemical Engineering Conference 2021, 100 Glorious Years of Chemical Engineering & Technology, September 16-19, 2021, Department of Chemical Engineering, NIT Jalandhar, Punjab, India)

- **Sintering Mechanism For The Early Stage Sintering Of Praseodymium Doped Ceria**
  Irfana Shajahan, Michelle Amin, Jessina Cherry, Ashish Kumar and Hari Prasad Dasari
  EIHE–2020 organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) during January 21-25, 2020 at DAE Convention centre, Anushaktinagar, Mumbai - 400094.
  Young Scholar award in honour of outstanding performance in oral presentation

- **Synthesis And Characterization Of Niobium Doped Ceria Based Solid Electrolytes**
  Sahana Naik, Sunaina Patil, Irfana Shajahan and Hari Prasad Dasari
  EIHE–2020 organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) during January 21-25, 2020 at DAE Convention centre, Anushaktinagar, Mumbai- 400094

- **Dilatometer Studies Of Praseodymium Doped Ceria Based Electrolyte Material For IT-SOFC**
  Shweta Ganiger, Irfana Shajahan, Sunaina Patil and Hari Prasad Dasari
  EIHE–2020 organised by the Indian Society for ElectroAnalytical Chemistry (ISEAC) during January 21-25, 2020 at DAE Convention centre, Anushaktinagar, Mumbai - 400094.

- **Synthesis and characterization of Ceria based material as a catalyst for soot oxidation activity**
  Varsha Mavath, Sunaina Patil, Irfana Shajahan, Hari Prasad Dasari.
  EIHE–2020 organised by the Indian Society for Electroanalytical Chemistry (ISEAC) during January 21-25, 2020 at DAE Convention centre, Anushaktinagar, Mumbai - 400094.

- **Synthesis of Praseodymium Doped Ceria based electrolyte material by Hydrothermal Method**
  Raksha Rao, Keerthanan Kamath, Irfana Shajahan, Priyanka R, Hari Prasad Dasari
  11th International Exergy, Energy and Environment Symposium 14-18, July 2019 at SRM University Chennai.)
  Received best Paper Award

- **Microwave assisted co-precipitation of ceria-based electrolyte materials (GDC, PDC and SDC) and its soot oxidation activity**
  Chaitra Shenoy, Hari Prasad Dasari, Anjana AP, Atmuri Shourya
  (National Conference 71 st Annual Session of Indian Institute of Chemical Engineering Congress (CHEMCON-2018)

- **Synthesis and characterization of Sm-doped ceria nano-particles using microwave assisted co-precipitation method**
  Prabhjot Kaur, Praneeth, Sherya , Hari Prasad Dasari, Anjana P Anantharaman,
  (National Conference 71 st Annual Session of Indian Institute of Chemical Engineering Congress (CHEMCON-2018)

- **A comprehensive study on effect of Ternary CeO_2-La_2O_3-MnO_2 Metal Oxides on soot Oxidation Activity**
  Anjana P Anantharaman, Hari Prasad Dasari, Ganesh Babu
  (National Conference 71 st Annual Session of Indian Institute of Chemical Engineering Congress (CHEMCON-2018)

- **Solution Combustion Synthesis of CeO_2: Effect of Solvents and Fuels on Soot Oxidation Activity.**
  Sunaina Patil, Hari Prasad Dasari.
  ICONSEA - 2018" which is to be held on October 4-6, 2018 at the Institute of Science and Technology, Jawaharlal Nehru Technological University, Hyderabad

- **Soot Oxidation Activity of Redox Metal Oxides (CeO_2, Pr_6O_{11} and Mn_3O_4)**
  Anjana Anantharaman, Hari Prasad Dasari
  International Conference on Material and Chemical Engineering (MACE Dec 2017)

- **A study on soot oxidation activity of Nickel and Nickel oxide by EDTA citrate Method. 2018**
  Dr. Hari Prasad Dasari, Akhil Vijay M P.
  (National Conference 71 st Annual Session of Indian Institute of Chemical Engineering Congress (CHEMCON- December 2018).

- **Synthesis, Characterization and soot oxidation activity of Gadolinium Doped Ceria ($Ce_{0.1}Gd_{0.9}O_2$). - 2018**
  Anjana P Anantharaman, Rahul M R, Sunaina Patil, Hari Prasad Dasari, Uday Bhaskar Babu Gara, Harshini Dasari.
  (International Conference on Composite Material Science and Technology 2018- Thailand)

- **Solubility Limits of Ceria-Zirconia-Lanthana Solid-Solutions**.
  Zenab Abbas, Mythili Surendran, Anjana P.A, Jidev P.K, Harshini Dasari, Sudhakar Naidu N, Anandhan S, Udaya Bhat K. Uday Bhaskar Babu G, Hari Prasad Dasari,
  Materials Today: Proceedings (ICEMS-2016, Jaipur). 2017

- **Electrochemical behavior of Ni-CZO cermet anodes prepared by glycine nitrate process.**
  D. Hari Prasad, H.-R Kim, J.-S. Park, B.-K. Kim, J.-H.Lee.
  216th ECS Meeting, SOFC XI (2009), Vienna, Austria

ANNEXURE - XI

Invited Talks

1. **"Characterization of Nanomaterials"** an expert talk as a resource person in ATAL Academy sponsored FDP on Nanotechnology & Applications" organized by Karnataka (Govt.) Polytechnic, Mangaluru, Karnataka, conducted from 20th – 25th January, 2025.

2. **"Ceria-Based Materials and Their Applications in Various Fields"** Seminar on Mechanics in honour of W. Olszak and A. Sawczuk held at IPPT Polish Academy of Science, Warsaw, Poland on 15th January 2024.

3. Talk during Workshop on **"How to Write a Research Proposal"**, at Marwadi University, Rajkot, Gujrat, India, on 23rd June, 2023.

4. **"Case Studies in Development of Solid Oxide Electrolysis Cells: Challenges and Opportunities for CO_2 Utilization"** in a Workshop on Advances in Carbon Dioxide Capture & Utilization for Sustainable Climate (ACCUSC-2022) organized on 4th to 10th July 2022 by the Department of Chemical Engineering, National Institute of Technology, Rourkela, Odisha, India.

5. **"Enhancement of Electrical conductivity of Oxide Ion Conductors in Solid Oxide Fuel cell: Opportunities and Challenges"** in AICTE training and learning (ATAL) academy sponsored FDP on "recent advancements in sustainable energy storage and conversion" from 25th – 29th Oct 2021 Organized by Department of Chemical Engineering MIT, Manipal

6. **"SOFC Technology: Progress, Challenges, and Future Prospects"** in Directorate of Technical Education sponsored Faculty and Staff Development Training Programme on **Fuel Cell Technology: Progress, Challenges and Future Prospects** held at the Department of Chemical Engineering, Government Engineering College, Kozhikode, Kerala on 24th March 2021.

7. **"Materials Development in Fuel cells and DPF Technologies for reducing the Carbon Footprint"** in AICTE sponsored Short Term Training Programme on **Industrial Pollution & Control Strategies** organized by the Department of Department of Chemical Engineering, Anurag Group of Institutions, Hyderabad, Telangana on 9th October 2020.

8. Key note address in One Day National Symposium on "**Advanced Materials**" organized by the Department of Chemical Engineering, Manipal Institute of Technology, Manipal on 28th October 2019.