

Biodata

Name	Dr. Narendar Nasani	
Designation	Scientist B	
Educational qualification	M.Sc from National Institute of Technology-Trichy (NIT-T), India. Ph.D from University of Aveiro, Portugal (Europe).	
Research area	Ion conducting materials for fuel cells/electrolysers, Processing of high temperature materials, thermoplastic extrusion, materials science, Fabrication of membrane electrode assembly (MEA) & testing and Oxide based materials for energy devices	
Recognised Awards/Honors/ Fellow	<ul style="list-style-type: none"> • Startup Research grant (SRG) awarded by SERB-DST in 2019. • Selected for INSA Visiting Scientist Programme 2019 by Indian National Science Academy (INSA). • INSPIRE faculty award by Dept. of Science & Technology, India (availing research grant only). • Awarded European Mobility project grant by the European Ceramic Society (ECerS)-JECS trust in 2015. • Awarded individual PhD fellowship by Portuguese Foundation for Science and Technology (FCT, Govt. of Portugal) in 2011. • Member of ECS, ISE, ECerS and Portuguese Glass & Ceramic Society. 	
Projects	<p>Ongoing:</p> <ol style="list-style-type: none"> 1. Development of Robust Metal supported Micro Proton conducting Solid Oxide Fuel Cells for Portable power applications; Sponsored by DST (09/2018-09/2023) (Rs. 35.00 lakhs) 2. Design of New anodes for Biogas fuelled Protonic Ceramic Fuel Cells; Sponsored by DST-SERB (12/2019-12/2021) (Rs. 30.03 lakhs) 	
Publications / Patents (Past 5 years)	<ol style="list-style-type: none"> 1. N. Nasani*, A.V. Kovalevsky, W. Xie, S. Rasekh, G. Constantinescu, A. Weidenkaff, D. Pukazhselvan, D.P. Fagg. Unravelling the Effects of Calcium Substitution in BaGd₂CoO₅ Haldane Gap 1D Material and Its Thermoelectric Performance, <i>The Journal of Physical Chemistry C</i> (2020)124, 24:13017–13025. (IF: 4.189) 2. I. Antunes, D. Pérez-Coll, N. Nasani, H. S. Soares, G. C. Mather, J. R. Frade, D. P. Fagg. Mechanochemical Processing of BaZr_{1-y}Y_yO_{3-d} (y = 0.15, 0.20) proton ceramic electrolytes: Phase Purity, Microstructure and Electrical Properties and comparison with other preparation routes. <i>International Journal of Hydrogen Energy</i> (2020) https://doi.org/10.1016/j.ijhydene.2020.06.222. (IF: 4.939) 3. S. R. Keshri, V. V. Bodewad, A. A. Jagtap, N. Nasani, S. Balaji, K. Annapurna, A.A. Reddy. Influence of NaF on the ionic conductivity of sodium aluminophosphate glass electrolytes, <i>Materials Letters</i> (2020)271:127763. (IF: 3.204) 	

4. F.J.A. Loureiro, **N. Nasani***, G. Srinivas Reddy, N.R. Munirathnam and D.P. Fagg. A review on sintering technology of proton conducting BaCeO₃-BaZrO₃ perovskite oxide materials for Protonic Ceramic Fuel Cells, *Journal of Power Sources* (2019)438:226991. (IF: **8.247**)
5. D. Ramasamy, **N. Nasani**, D. Pukazhselvan and D.P. Fagg. Increased performance by use of a mixed conducting buffer layer, terbia-doped ceria, for Nd₂NiO_{4+δ} SOFC/SOEC oxygen electrodes, *International Journal of Hydrogen Energy* (2019)44(59):31466-31474. (IF: **4.939**)
6. D. Pukazhselvan, **N. Nasani**, T. Yang, D. Ramasamy, A. Shaula and D. P. Fagg. Chemically transformed additive phases in Mg₂TiO₄ and MgTiO₃ loaded hydrogen storage system MgH₂, *Applied Surface Science* (2019)472:99-104. (IF: **6.182**)
7. A. Brandao, **N. Nasani**, A. Yaremchenko, A. Kavaleuski, D.P. Fagg. Solid solution limits and electrical properties of scheelite Sr_yLa_{1-y}Nb_{1-x}V_xO_{4-δ} materials for x = 0.25 and 0.30 *International Journal of Hydrogen Energy* (2018)43: 18682-18690. (IF: **4.939**)
8. **N. Nasani***, D. Pukazhselvan, A.V. Kovalevsky, A.L. Shaula, D.P. Fagg. Conductivity recovery by redox cycling of yttrium doped barium zirconate proton conductors and exsolution of Ni-based sintering additives, *Journal of Power Sources* (2017)339:93–102. (IF: **8.247**)
9. **N. Nasani**, C. M. O. Rocha, A. V. Kovalevsky, G. Otero-Irurueta, S. Populoh, P. Thiel, A. Weidenkaff, F. N. Silva, D.P. Fagg. Exploring the thermoelectric performance of BaGd₂NiO₅ Haldane gap materials, *Inorganic Chemistry* (2017)56:2354-2362. (IF: **4.825**)
10. M. Silibin, V.S. Bystrov, D. Karpinsky, **N. Nasani**, G. Goncalves, I.M. Gavrilin, A.V. Solnyshkin, P.A.A.P. Marques, Budhendra Singh, I. Bdikin. Local mechanical and electromechanical properties of the P(VDF-TrFE)-Graphene oxide thin films, *Applied Surface Science* (2017)421:42-51. (IF: **6.182**)
11. D. Pukazhselvan, **N. Nasani**, P. Correia, E. Carbo-Argibay, G. Otero-Irurueta, D. G. Stroppa, D.P. Fagg. Evolution of reduced Ti containing phase(s) in MgH₂/TiO₂ system and its effect on the hydrogen storage behavior of MgH₂, *Journal of Power Sources* (2017)362:174-183. (IF: **8.247**)
12. D. Pukazhselvan, **N. Nasani**, T. Yang, I. Bdikin, A.V. Kovalevsky, D.P. Fagg. Dehydrogenation Properties of Fe, Fe-C, and Fe-Mg Additives Loaded Magnesium Hydride, *ChemPhysChem* (2017)18:287-291. (IF: **3.144**)
13. D. Pukazhselvan, **N. Nasani**, K.S. Sandhya, B. Singh, I. Bdikin, N. Koga, D. P. Fagg. Role of Chemical Interaction Between MgH₂ and TiO₂ Additive on the Hydrogen Storage Behavior of MgH₂, *Applied Surface Science* (2017)42:740-745. (IF: **6.182**)
14. D. Perez-Coll, J. C. Perez-Flores, **N. Nasani**, Peter R. Slater and D. P. Fagg. Exploring the mixed transport properties of sulfur (VI)-doped Ba₂In₂O₅ for intermediate-temperature electrochemical applications, *Journal of Materials Chemistry A* (2016)4:11069-11076. (IF: **11.301**)

	<p>15. D. Pukazhselvan, N. Nasani, J. Perez, M. J. Hortiguera, T. Yang, I. Bdikin, and D. P. Fagg. Two step mechanochemical synthesis of Nb doped MgO rock salt nanoparticles and its application for hydrogen storage in MgH₂, <i>International Journal of Hydrogen Energy</i> (2016)41:11716-11722. (IF: 4.939)</p> <p>16. D. Ramasamy, A. Shaula, N. Nasani, A. V. Kovalevsky and D. P. Fagg. Comparative study of fluorite-type ceria-based Ce_{1-x}Ln_xO_{2-δ} (Ln = Tb, Gd and Pr) mixed ionic electronic conductors densified at low temperatures, <i>Journal of Materials Science</i> (2016)51:10293–10300. (IF: 3.553)</p> <p>17. B. Singh, Mohd. Shkir, S. AlFaify, A. Kaushal, N. Nasani, I. Bdikin, H. Shoukry, I.S. Yahia and H. Algarni. Structural, optical, thermal, mechanical and dielectric studies of Sulfamic acid single crystals: An influence of dysprosium (Dy³⁺) doping, <i>Journal of Molecular Structure</i> (2016)1119:365–372. (IF: 2.463)</p> <p>18. N. Nasani*, D. Ramasamy, S. Mikhalev, A. V. Kovalevsky and D. P. Fagg. Fabrication and electrochemical performance of a stable, anode supported thin BaCe_{0.4}Zr_{0.4}Y_{0.2}O_{3-δ} electrolyte Protonic Ceramic Fuel Cell, <i>Journal of Power Sources</i> (2015)278:582-589. (IF: 8.247)</p> <p>19. N. Nasani, D. Ramasamy, I. Antunes, J. Perez and D. P. Fagg. Electrochemical behaviour of Ni-BZO and Ni-BZY cermet anodes for Protonic Ceramic Fuel Cells - A comparative study, <i>Electrochimica Acta</i> (2015)154:387-396. (IF: 6.215)</p> <p>20. D. Pukazhselvan, J. Perez, N. Nasani, I. Bdikin, A.V. Kovalevsky and D. P. Fagg. Formation of Mg_xNb_yO_{x+y} through the Mechanochemical Reaction of MgH₂ and Nb₂O₅, and Its effect on the hydrogen storage behavior of MgH₂, <i>ChemPhysChem</i> (2016)17:178-183. (IF: 3.144)</p> <p>21. N. Nasani, R. Devaraj, I. Antunes, B. Singh and D. P. Fagg. Structural and electrical properties of strontium substituted Y₂BaNiO₅, <i>Journal of Alloys and Compounds</i> (2015)620:91-96. (IF: 4.65)</p> <p>22. Z. Sherafat, M. H. Paydar, I. Antunes, N. Nasani, A.D. Brandão and D. P. Fagg. Modeling of electrical conductivity in the proton conductor Ba_{0.85}K_{0.15}ZrO_{3-δ}, <i>Electrochimica Acta</i> (2015)165:443-449. (IF: 6.215)</p> <p>23. D. Ramasamy, N. Nasani, A. D. Brandão, D. Pérez Coll and D. P. Fagg, Enhancing electrochemical performance by control of transport properties in buffer layers – Solid oxide fuel/electrolyser cells, <i>Physical Chemistry Chemical Physics</i> (2015)17:11527-11539. (IF: 3.43)</p>
Google Scholar Link	https://scholar.google.pt/citations?hl=en&user=Mk70344AAAAJ&view_op=list_works&sortby=pubdate