## **Last 5 year publications details**

## PATENT ISSUED

- 1. US 8673503 "Polyurethane gels with improved conductance and/or solvent retention"
  - R. Balaji, Ajit. R. Kulkarni, Raman S. Srinivasa, 2014 (USPTO)
- 2. US 8871390 "PAN-PEO gels with improved conductance and solvent retention"
  - R. Balaji, Ajit. R. Kulkarni, Raman S. Srinivasa, 2015(USPTO)
- 3. CN103069635 "Having improved conductivity and solvent retained pan-peo gel"
  - R. Balaji, Ajit. R. Kulkarni, Raman S. Srinivasa, 2015 (CHINA)

## PATENT PUBLISHED

- 4. 1751/MUM/2010 "PAN-PEO gels with improved conductance and solvent retention" **R. Balaji**, Ajit. R. Kulkarni, Raman S. Srinivasa, 2010 (INDIA)
- 5. PCT/IB2010/002105 "PAN-PEO gels with improved conductance and solvent retention" **R. Balaji**, Ajit. R. Kulkarni, Raman S. Srinivasa, 2010 (WIPO)
- 6. 201641018900 Lead Zirconium Titanate Epoxy Composite Having Effective Piezoelectric Property, **R. Balaji** (INDIA)

## RESEARCH PUBLICATIONS

- 1. Effect of Dopant on Improving Structural, Density and Functional Properties of Ceria Based SOFC Electrolyte. A. Senthilkumar, R. Balaji, S. Jayakumar J. Nanosci. And Nanotechol, 15 (37) (2019)
- 2. Effect of sintering on the structural and morphological properties of barium cerate based electrolyte for IT-SOFCs application. A.Senthilkumar, R. Balaji, S. Jayakumar J. Mater. Environ. Sci, 9, 2599 (2018)
- 3. Thermal, structural and electrical properties of samarium doped barium cerate electrolyte for SOFCs. A. Senthilkumar, R. Balaji, S. Jayakumar. Materials Chemistry and Physics, 202 (82) (2017)

- 4. **Structural and morphological analysis of Barium cerate electrolyte for SOFC application.** A. Senthilkumar, **R. Balaji**, P. Puviarasu, S. Jayakumar. Materials Science Poland, 35 (120) (2017)
- 5. **Investigation on structural and electrical property of gadolinium doped barium cerate electrolyte for SOFCs.** Senthil Kumar A, **Balaji R**, Agalya P, Bhuvanasundari S, Jayakumar S., Venkateswaran R. Optoelectronics and Advanced Materials, Rapid Communications, 11 (109) (2017)
- 6. Microwave Assisted Sintering of Gadolinium Doped Barium Cerate Electrolyte For Intermediate Temperature Solid Oxide Fuel Cells. A. Senthilkumar, R. Balaji, P. Puviarasu, S. Jayakumar. Materials Chemistry and Physics, 182 (520) (2016)
- 7. A Comparative Study On CDS: PEO and Cds: Pmma Nanocomposite Solid Films. S. Padmaja, S. Jayakumar, R. Balaji, K. Vaideki. Materials Research Bulletin, 80 (36), (2016)
- 8. Microwave And Conventional Sintering Of Gadolinium Doped Barium Cerate: A Comparative Study. A. Senthilkumar, R. Balaji, P. Puviarasu, S. Jayakumar, "Optoelectronics and advanced materials Rapid communications, 9 (5) (2015)
- 9. **CDS:PMMA Nanocomposite Solid Films with Enhanced Properties.** S. Padmaja, S. Jayakumar, **R. Balaji**. Materials Technology, 30(276-281) (2015)
- 10. Abnormal Grain Growth Free Strontium Barium Niobate by Microwave Assisted Sintering. K. Abduraoof, R. Balaji, S. Jayakumar, G. M. Joshi. Ferroelectrics, 481(196-205) (2015)