

## CURRICULUM VITAE



- 01. Name** : **Mr. Pandu Ramavath**
- 02. Qualifications** : **Pursing PhD**  
(Mechanical Engineering)  
Osmania University, Hyderabad  
**M.Tech** (Design of Mechanical Equipment) at **IIT, Delhi.**  
**B.Tech** (Mechanical Engineering)  
**JNTU Anantapur** (Andhra Pradesh)
- 03. Designation** : **Scientist-D**
- 03. Contact information** : Center for ceramic processing,  
ARCI, Balapur, Hyderabad-5  
+91-40 24441075/6, Ext: 351  
Fax: +91-40 24442699,  
Mobile: 9603175310  
Email: pandu@arci.res.in
- 06. Experience** : 14 years Research experience after M.Tech
- 07. Research Areas of Interest** : Transparent Ceramics,  
Chemical Vapour Deposition,  
Hot Isostatically Pressing,  
Fracture Mechanics and  
Compaction processing of Ceramics

**08. List of Journal Publications:**

1. Fabrication of Transparent Spinel Honeycomb Structures by Methyl Cellulose based Thermal Gelation Processing  
P. Biswas, K. Rajeswari, **P. Ramavath**, Roy Johnson, H. S. Maiti  
*Journal of The American Ceramic Society* 96 (2013) 3042–3045
2. Quasi-static compression behavior of nickel oxide, nickel oxide: zirconia, nickel:zirconia and nickel foams  
Papiya Biswas, **Pandu Ramavath**, Chandhana Muraleedharan Nair, Madireddy Buchi Suresh, Nakula Ravi, Roy Johnson  
*CeramicsInternational* 42(2016)10572–10578
3. Effect of post CVD thermal treatments on crystallographic orientation, microstructure, mechanical and transmission Properties of ZnS Ceramics  
P. Biswas, R. Senthil Kumar, **P. Ramavath**, V. Mahendar, G. V. N. Rao, U. S. Hareesh and R. Johnson  
*Journal of Alloys Compounds*, 496 (2010) 273-277
4. Optical and mechanical properties of compaction and slip cast processed transparent polycrystalline spinel ceramics  
**Pandu Ramavath**, Papiya Biswas, Kotikalapudi Rajeswari, Madireddy Buchi Suresh, Roy Johnson, Gadhe Padmanabham, Chandrashekhara Sadasiv Kumbhar, Tapas Kumar Chongdar, Nitin Madhusudan Gokhale  
*Ceramics International* 40 (2014) 5575–5581
5. Diametral Deformation Behaviour and Machinability of Methyl Cellulose Thermal Gel cast Processed Alumina Ceramics  
P. Biswas, M. Swathi, **P. Ramavath**, K. Rajeswari, M. Buchi Suresh, Roy Johnson  
*Ceramic International*, 38 (2012) 6115-6121.
6. Effect of Sphalerite to Wurtzite Crystallographic Transformation on Microstructure, Optical and Mechanical Properties of Zinc Sulphide Ceramics  
**P. Ramavath**, P. Biswas, R. Senthil Kumar, V. Mahendar, G. V. N. Rao, U. S. Hareesh and R. Johnson, *Ceramic International*, 37 (2011) 1039-1046

7. Sonochemical Synthesis of Nano-Structured Hydroxyapatite with unique morphologies and Evaluation of Sintering Kinetics  
Papiya Biswas, Bandhakavi Lakshmi Sindhura, Chandhana Muraleedharan Nair, **Pandu Ramavath**, Madireddy Buchi Suresh and Roy Johnson  
*Journal of Advances in Chemistry* 11 (2015) 3789-3797
8. Prediction and validation of buckling stress ( $\sigma_{cr}$ ) of the ceramic honeycomb cell walls under quasi-static compression  
**Pandu Ramavath**, Papiya Biswas, Nakula Ravi and Roy Johnson  
*Cogent Engineering* 3 (2016) 1168068
9. Compaction Curves: A Tool for Qualitative Evaluation of Quasi-static Compaction Behavior of Ceramic Powders  
**Pandu Ramavath**, Papiya Biswas, P. Suresh Babu, P. Laxminarayana and Roy Johnson, *The Australian Ceramic Society* 51 (2015) 130-136
10. Hot Isostatic Pressing of ZnS Powder and CVD Zinc Sulphide Ceramics and Comparative Evaluation of Physico-chemical, Microstructural and Transmission Properties  
**Pandu Ramavath**, Papiya Biswas, Roy Johnson, G. Jagan Reddy and P. Laxminarayana, *Transactions of Indian Ceramic Society* 73 (2014) 299-302
11. Experimental Investigation on Flowability and compaction behavior of Spray granulated submicron Alumina Granules  
Abhisek Choudhary, **Pandu Ramavath**, Papiya Biswas, Nukula Ravi and Roy Johnson, *ISRN Ceramics* 2013 (2013) 1-6
12. Transparent Polycrystalline Ceramics: An Overview  
R. Johnson, P. Biswas, **P. Ramavath**, R.S. Kumar and G. Padmanabham  
*Transaction of Indian Ceramic Society*, 71 [2] (2012) 73-85
13. Fracture Behaviour of Chemical Vapour Deposited and Hot Isostatically Pressed Zinc Sulphide Ceramics.  
**P. Ramavath**, V. Mahender, R. Johnson, Sweety Kumari and N. Eswara Prasad.  
*Materials Science and Engineering A* 528 (2011) 5030–5035

14. Flow properties of spray dried alumina granules using powder flow analysis technique. **Pandu Ramavath**, M. Swathi, M. Buchi Suresh, Roy Johnson, **Advanced Powder Technology 24 (2013) 667–673**
15. Hydrolysis control of alumina and AlN mixture for aqueous colloidal processing of aluminium oxynitride, R.S.Kumar, U.S.Hareesh, **P.Ramavath** and Roy Johnson, **Ceramic International 37, 2583-2590, 2011**
16. Compressive and flexural strength properties of ZnS Optical ceramics.  
**P. Ramavath**, N. Ravi, U.S. Hareesh, R. Johnson and N. Eswara Prasad  
**Transactions of the Indian Institute of Metal, Vol.63, issue 6, December 2010, pp.847-852**
17. Effect of primary particle size on spray formation, morphology and internal structure of alumina granules and elucidation of flowability and compaction behaviour.  
**Pandu Ramavath**, R. Papitha, M. Ramesh, P. Suresh Babu, and Roy Johnson,  
**Processing and Application of Ceramics 8 [2] (2014) 93–99**
18. Development of Cordierite based Reticulated Foams with Improved Mechanical Properties for Porous Burner Applications.  
P. Biswas, K. Varaprasad, **P. Ramavath**, M.B. Suresh, A. K. Khanra and R. Johnson  
**Transactions of the Indian ceramic society vol. 76, no. 1, pp. 1-6 (2017).**
19. Effect of Room and High Temperature Compaction on the Optical and Mechanical Properties of HIPed Transparent Spinel Ceramics. P. Biswas, **P. Ramavath**, R. Johnson, Mantravadi Krishna Mohan, Chandrashekhar S. Kumbhar, Dinesh S. Patil, T. K. Chongdar, N. M. Gokhale, **Advanced Engineering Materials 2017, Vol.19, issue 8, pp. 170011-1700118.**
20. Fabrication of IR Transparent Zinc sulphide plate by chemical vapour deposition (CVD).  
Papiya Biswas, **Pandu Ramavath**, Roy Johnson and Kurisetty Venkata Ravi, **Indian Journal of chemical technology vol.23, September, 2016 pp.400-404.**
21. **3D printing of complex shaped alumina parts**, S. Mamatha, P. Biswas, **P. Ramavath**, Dibakar Das and Roy Johnson, **Ceramic International paper accepted.**

## **9. Patents (Indian) Granted**

- 1. Process of Preparation for Zinc Sulphide freestanding article by Chemical Vapour Deposition (Indian Patent No: IN 200900517-i1)**
- 2. A novel process for producing IR transparent polycrystalline alumina articles and the articles so produced(Patent Filed)(2012)**

## **10. Papers Published in Peer Reviewed International Conference Proceedings:**

- 1. Development of a Direct-Drive Based Three –DOF Robot. Pandu Ramavath , Dhiraj Barma, S.K Saha, B. Seth and D. Jaitly , Proc. of the National Conference on Industrial Problems on Machines and Mechanisms, IIT Kharagpur, Feb.24-25, (2005) 67-74**
- 2. Evolution of Micro-structure of ZnS Transparent Ceramics Processed through powder HIPing and CVD+HIPing Routes, Pandu Ramavath, Papiya Biswas, Roy Johnson and G. Jagan Reddy and P.Laxminarayana,International Conference on Ceramic Science, 19-20th December,2013 (SNTI, Jamshedpur)**
- 3. Vacuum Encapsulation of Sub- $\mu\text{m}$  Alumina Powder and Densification by Direct Consolidation through Hot Isostatic Pressing, Pandu Ramavath, Papiya Biswas, Pappula Laxminarayana, Roy Johnson International Conference on Advance in Materials and Manufacturing, 8-10thDecember, 2016**
- 4. ‘Microstructure and mechanical properties of spinel compacts densified through hiping and sintering, Pandu Ramavath, Papiya Biswas, Roy Johnson, Pappula Laxminarayana, International Conference on Ceramic & Advance Materials for Energy and Environment, 15-17th December, 2015 at Bangalore (Karnataka), India**

5. **‘Microstructure and mechanical properties of powder –hiped alumina and zirconia toughened alumina ceramics’ Pandu Ramavath, Y. S. Rao, Pappula Laxminarayana, Roy Johnson, International Conference on Expanding Horizons of Technologies applications of Ceramics glasses,14-16th December, 2017 at Pune (Maharashtra), India**
6. **Comparative Evaluation of Microstructural Features of Uni-axially and Hot Isostatically Pressed ZTA Ceramics, Pandu Ramavath, Pappula Laxminarayana and Roy Johnson,National Conference on Trends in Science, Engineering & Technology, 2-3rd February 2018 (NTSET-2018)**

#### **11. Professional Awards Received and Presentations Made at International Conferences Abroad:**

1. Received “Best Poster Award” for the paper entitled **“Effect of Sphalerite to Wurtzite Crystallographic Transformation on Microstructure and Mechanical Properties of CVD ZnS Ceramic. P. Ramavath, V.Mahender, P. Biswas, and R. Johnson, Annual session of Indian Ceramic Society, 11-12 December 2009, Trivandrum**

#### **12. Contribution to Book chapters**

1. **Zinc Sulphide Ceramics for Infrared Optics, Roy Johnson, Papiya Biswas, Pandu Ramavath, Yaswant R Mahajan, Handbook of Advanced Ceramics and Composites, 2019**