

CURRICULUM VITAE



- 01. Name** : **Dr. Pandu Ramavath**
- 02. Qualifications** : **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**
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- 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
Ceramics International 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 (σ_{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**, vol.44, 16 (2018) pp.19278-19281

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- μm 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)**
7. **Single-Step Hot Isostatic Pressing of Magnesium Aluminate Spinel ($MgAl_2O_4$) Powder to Dense Ceramic Parts, Pandu Ramavath, Y.S.Rao and Roy Johnson, National Conference on Innovations and Technologies for Ceramics (InTeC) – 2019, Trivandrum, 10-12 December 2019**

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, Springer, cham, (2019)1-34**