



## Curriculum vitae

Name : **Dr. H. B. Ravikumar**

Designation : **Professor**

Address : Department of Physics, Manasagangotri,  
University of Mysore, Mysuru

Date of Birth: Sex (M/F) : 8<sup>th</sup> June 1975, Male

Education Qualification : M.Sc, Ph.D.,

Title of the thesis : **Microstructure Characterization of Polymer Blends by Positron Lifetime Spectroscopy.**

Research Guide : **Prof. C. Ranganathaiah**, Department of Physics,  
University of Mysore, Mysore.

**Position held:**

**Professor:** DOS in Physics, Manasagangotri, Mysuru. (From March 2022).

**Associate Professor:** DOS in Physics, Manasagangotri, Mysuru. (From March 2019 to March 2022).

**Assistant Professor:** DOS in Physics, Manasagangotri, Mysuru. (From March 2007 to March 2019).

**Lecturer:** Sri Jayachamaraja College of Engineering, Mysuru. (From June 2006 to March 2007).

**Senior Research fellow:** DOS in Physics, Manasagangotri, Mysuru, (from January 2004 to October 2005).

**Junior Research fellow:** DOS in Physics, Manasagangotri, Mysuru, (from January 2001 to December 2003)

Research experience : 18 Years

Research Project Sanctioned

**Principal Investigator:**

**Title:** Microstructural Characterization of Polymer Nanocomposites by Positron Lifetime Technique.

**Funding agency:** University of Mysore for Rs. 75,000/- completed.

**Title:** Studies to correlate mesopores and free volume holes in polymers and blends by Sorption and Positron Lifetime Techniques.

**Funding agency:** University of Mysore for Rs. 1 lakh. Status- Completed.

**Principal Co- Investigator**

**Title:** R&D efforts by University Groups for INO project

**Funding agency :** Agency: DST, New Delhi. Amt: Rs. 59.80 lakhs. Status completed.

**Co-Investigator**

**Title:** Research and Development of RPC detectors for INO project.

**Funding agency:** Agency: DST, New Delhi. Amt: Rs. 8.77 lakhs. Status completed.

**Number of PhDs produced** : **03**

**Number of Students working for Ph.D** : **03**

Total no. of publications in refereed journals : **56** (Publications list enclosed)

**International/ National Conferences/Symposia** : **13**

**National Conferences/Symposia** : **18**

**H index** : **15**



(Published)

2022

1. **Improved mechanical and microstructural performance of high density polyethylene-chitosan-hydroxyapatite composites as potential bone implant materials**

MerilShelly,M.Raghavendra,AshwiniPrabhu,H.B.Ravikumar,MerilMathew,TaniaFrancis

<https://doi.org/10.1016/j.mtsust.2022.10018><sup>a</sup>

**Materials Today Sustainability,1 July 2022, 100186**

**IF 7.228,**

2. **Exploration of free volume behavior and ionic conductivity of PVA: x (x = 0, Y2O3, ZrO2, YSZ) ion-oxide conducting polymer ceramic composites**

ChetanChavana., Rajashekhar F Bhajantri., VipinCyria., Ismayil., Soumya Bulla., **Ravikumar H.B.,** Raghavendra M., Sakthipandi K.

**Journal of Non-Crystalline Solids**, Volume 590, 15 August 2022, 121696

<https://doi.org/10.1016/j.jnoncrysol.2022.121696>

**IF 4.47**

3. Ion dynamics and positron annihilation studies on polymer ceramic composite electrolyte system (PVA/NaClO4/Y2O3): Application in electrochemical devices

ChetanChavan, R.F.Bhajantri, Soumya Bulla, **H.B.Ravikumar**, M.Raghavendra, K.Sakthipandi, K.Yogesh Kumar,B.P.Prasanna

<https://doi.org/10.1016/j.ceramint.2022.03.058>

**Ceramics International**, Elsevier, Available online 11 March 2022,

**IF 5.527**

4. Hydrothermal Synthesis of Cerium dioxide nanoparticles and dielectric study of PVB/CeO<sub>2</sub> polymer nanodielectrics.

Raghavendra M, K. Jagadish, S. Srikantaswamy, Pradeep T. M, A.P. Gnana Prakash,

**H.B. Ravikumar'**

**Journal of Materials Science: Materials in Electronics volume 33, pages1063–1077 (2022)**

<https://doi.org/10.1007/s10854-021-07379-z>

**IF 2.478**

2021

5. Structural and free - hole volume characterization of HDPE-chitosan composites plasticized with palm oil.

Meril Shelly, Mariswamy Raghavendra, **Harijan Basavaraju Ravikumar** and Tania Francis.

**Journal Polymer Engineering and science, Vol 61 2 October 2021**

**IF 2.428,**

<https://doi.org/10.1002/pen.25818>



6. Gamma irradiation induced microstructural modification and electrical conductivity of Bakelite resistive plate material.

Aneesh Kumar K V, Raghavendra M, Vinayakprasanna N Hegde, Gnana Prakash A P,

**Ravikumar HB,**

Journal of Radioanalytical and Nuclear Chemistry, Springer

<https://doi.org/10.1007/s10967-020-07565-z>

06-January 2021

**IF 1.371**

## 2020

7. Effect of Ar<sup>+</sup> ion implantation induced microstructural modifications on electrical conductivity of glass RPC detector materials.

K. V. Aneesh Kumar, and **H. B. Ravikumar,**

**Journal of Electronic Materials Springer**

**IF 1.938**

DOI 10.1007/s11664-020-08358-6, 09-August-2020

8. Free volume controlled Ionic Conductivity in Poly Vinyl Alcohol / Zinc Acetate Solid Polymer Electrolytes.

E. Kavva Valsan, Anju John, M Raghavendra and **H. B. Ravikumar**

**Journal of The Electrochemical Society IOP Science publishers, 167, number 6, 14 April 2020**

<https://doi.org/10.1149/1945-7111/ab861e>,

**IF 4.316**

## 2019

9. **Studies on thermally induced microstructural modifications and electrical conductivity in glass RPC detector materials**

K. V. Aneesh Kumar, and **H. B. Ravikumar**

**Journal of Non-Crystalline Solids, <https://doi.org/10.1016/j.jnoncrysol.2019.119709>**

**5 November 2019, 119709**

**Elsevier**

**IF 2.92**

10. Room Temperature X-Ray and Positron Annihilation Lifetime Spectroscopic Studies of Cavansite Crystals  
Suresh Kumar B.V, **Ravikumar H. B,** Gnana Prakash A. P, Girish H. N, ISHIGAKI, Tadashi; Madhusudan P.

**Japanese Journal of Applied Physics 58, 110904 September 2019** IOP Science

**IF 1.47**

11. Synthesis of graphite oxide (GO) nanoparticles and conductivity studies of PSF/GO and PSAN/GO polymer nanocomposites"

S, Ningaraju, K, Jagadish, S, Srikantaswamy, A. P. Gnanaprakash, **H.B, Ravikumar**

**Materials Science & Engineering B 246 (2019) 62–75, July 2019**

**Elsevier**

**IF 4.70**

12. Role of Free Volumes in Conducting Properties of GO and rGO Filled PVA-PEDOT:PSS Composite Free Standing Films: A Positron Annihilation Lifetime

Vidyashree Hebbar, **Ravikumar H. B.** Ningaraju S. Rajashekhar Bhajantri

**Journal of Physics and Chemistry of Solids, Vol. 126, p.242-256. 03/2019,**

**Elsevier**

**IF 3.442**

## 2018

13. Shape Memory Polytriazole Elastomers from Aromatic Monomers; Synthesis and Properties

Ragin Ramdas M, Vijayalakshmi KP, Munirathnamma L.M, **Ravikumar H.B.** Santhosh K.S

**Materials Today Communications 17 (2018) 180–186**

**IF 2.678**

14. Conductivity and Free Volume Studies on Bismuth Sulfide/PVA: Polypyrrole Nanocomposites

Vidyashree Hebbar, **H. B. Ravikumar**, Saraswati Masti, Madhvi Nandimath, L. M. Munirathnamma,

R.F. Bhajantri



15. Studies on free volume controlled electrical properties of PVA/NiO and PVA/TiO<sub>2</sub> Nanocomposites  
S.Ningaraju, A.P.Gnana Prakash and **H.B.Ravikumar**  
**Solid State Ionics 320 (2018) 132–147 March -2018** Elsevier **IF 2.754**
16. Free volume dependence on electric properties of Poly (styrene co-acrylonitrile)/Nickel Oxide polymer Nanocomposites  
S.Ningaraju, Vinayakaprasanna N.Hegde, A.P.Gnana Prakash and **H.B.Ravikumar**  
**Chemical Physics Letters, 698,24-35 (2018) 16<sup>th</sup> April 2018** Elsevier **IF 1.8**
17. Positron Lifetime Study of PAN based carbon fiber reinforced Polymer composites  
L. M. Munirathnamma, **H.B. Ravikumar**,  
**Polymer composites, 40:E939–E952, 2019** Wiley **IF 2.324**
18. Comparative Study of 150 keV Ar<sup>+</sup> and O<sup>+</sup> Ion Implantation Induced Structural Modification on Electrical Conductivity in Bakelite polymer.  
K. V. Aneesh Kumar, S. Krishnaveni, K. Ashokan, C. Ranganathaiah and **H. B. Ravikumar**  
**Journal of Physics and Chemistry of Solids Vol 113, 74-81, February 2018** Elsevier **IF 2.059**
19. Effect of TiO<sub>2</sub> nanofiller on electrical conductivity of ABS/TiO<sub>2</sub> polymer nanocomposites:  
A free volume study  
S. Ningaraju, L.M. Munirathnamma, K.V. Aneeshkumar, B.H. Doreswamy and **H.B. Ravikumar**  
**Materials Today: Proceedings 5 (2018) 22454–22459** ISSN: 2214-7853, June 2018
20. Microstructural Characterization of PAN based carbon fiber reinforced Nylon 6 polymer composites  
L. M. Munirathnamma, S. Ningaraju, K. V. Aneesh kumar and **H.B. Ravikumar**  
**AIP Conference Proceedings, DAE-SSPS 2018.**  
1942, 080037 (2018); doi: 10.1063/1.5028871  
ISSNs: ISBN: 978-0-7354-1634-5\
21. Effect of 250 keV Oxygen Ion Implantation Induced Structural Modifications in Glass RPC Detector Materials  
K.V. Aneesh Kumar, S. Ningaraju and **H.B. Ravikumar.**  
**Proceedings of International conference on Recent Advances in Materials Science and Biophysics**  
held at Mangalore University during January 23-25, 2018.  
**ISBN 978-93-5291-953-6**
- 2017**
22. Microstructural Analysis of Natural rubber/Millable Polyurethane Blends using Positron Annihilation Lifetime Spectroscopy.  
Renu Jose , **H. B. Ravikumar** , L. M. Munirathnamma, Lity Alen Varghese, G Unnikrishnan.  
Published online: 27 Apr 2017  
**Polymer-Plastics Technology and Engineering. Volume 57, 2018 - Issue 3**  
**Taylor and Francis** **IF 1.232**
23. Microstructural characterization of Short glass fiber and PAN based carbon fiber reinforced **Nylon 6** polymer composites  
L. M. Munirathnamma, **H.B. Ravikumar**,  
**Polymer Engineering and Science , 58:1428–1437, 2018** NOV 2017 **Wiley** **IF 1.449,**
24. Ionic and electronic transport in PSF/NiO and PSF/TiO<sub>2</sub> polymer nanocomposites: A Positron lifetime study  
S.Ningaraju and **H.B.Ravikumar.**  
**Solid State Ionics 310 (2017) 81–94** Elsevier **IF 3.785**
25. Effect of electron beam irradiation on microstructure, optical and electrical properties of glass RPC



K. V. Aneesh Kumar <sup>a</sup>, S. Krishnaveni, C. Ranganathaiah, **H. B. Ravikumar**

**Applied Physics A 2017 123:525**

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**Springer,**

**IF 1.60**

26. Oxygen ion implantation induced structural modifications and electrical conductivity in glass RPC detector materials: A positron lifetime study.

K. V. Aneesh Kumar, S. Krishnaveni, P. M. G. Nambissan, C. Ranganathaiah, **H. B. Ravikumar**

**Journal of Non-Crystalline Solids 471 (2017) 151–159** 1 September 2017 **Elsevier IF 2.48**

27. Influence of Oxygen Ion Implantation on the Free Volume Parameters and Electrical Conductivity of a Polymer-Based Bakelite RPC Detector Material

K. V. Aneesh Kumar, G. N. Kumaraswamy, C. Ranganathaiah, **H. B. Ravikumar**

**J. Appl. Polym. Sci. 2017, 134, 44962** 20 February 2017

**IF = 1.87**

28. Studies on electrical conductivity of PVA/GO nanocomposites : A free volume approach  
S.Ningaraju and **H.B.Ravikumar.**

**Journal of Polymer Research, Vol. 24, Issue 1 Springer** January 2017

**IF = 1.615**

29. Invited review: Physics potential of the ICAL detector at the India-based Neutrino Observatory (INO)

A KUMAR<sup>12</sup>, A M VINOD KUMAR<sup>16</sup>, ABHIJASH<sup>6,14</sup>, AJIT K MOHANTY<sup>4,6</sup>, ALEENA CHACKO<sup>8</sup>, ALIAJMI<sup>6</sup>, AMBAR GHOSAL<sup>6,14</sup>, AMINA KHATUN<sup>6,10</sup>, AMITAVA RAYCHAUDHURI<sup>17</sup>, AMOL DIGHE<sup>15</sup>, ANIMESH CHATTERJEE<sup>5,6</sup>, ANKIT GAUR<sup>18</sup>, ANUSHREE GHOSH<sup>5,6</sup>, ASHOK KUMAR<sup>18</sup>, ASMITA REDIJ<sup>15</sup>, B SATYANARAYANA<sup>15</sup>, B S ACHARYA<sup>15</sup>, BRAJESH C CHOUDHARY<sup>18</sup>, C RANGANATHAIAH<sup>21</sup>, C D RAVIKUMAR<sup>16</sup>, CHANDAN GUPTA<sup>6,13</sup>, D INDUMATHI<sup>6,9</sup>, DALJEET KAUR<sup>18</sup>, DEBASISH MAJUMDAR<sup>6,14</sup>, DEEPAK SAMUEL<sup>15</sup>, DEEPAK TIWARI<sup>5,6</sup>, G RAJASEKARAN<sup>6,9</sup>, GAUTAM GANGOPADHYAY<sup>17</sup>, GOBINDA MAJUMDER<sup>15</sup> **H B RAVIKUMAR<sup>21</sup>**, J B SINGH<sup>12</sup>, J S SHAHI<sup>12</sup>, JAMES LIBBY<sup>8</sup>, JYOTSNA SINGH<sup>20</sup>,

**Pramana – J. Phys. (2017) 88:79 \_c Indian Academy of Sciences, DOI 10.1007/s12043-017-1373-4**

**IF=0.520**

30. Effect of Argon Ion Implantation on the Microstructure and Electrical Conductivity of a Polymer Based Bakelite RPC Detector Material

K.V. Aneesh Kumar<sup>1</sup>, L.M. Munirathnamma<sup>1</sup>, S. Ningaraju<sup>1</sup>, C. Ranganathaiah<sup>2</sup>, P.M.G. Nambissan<sup>3</sup> and **H.B. Ravikumar<sup>1\*</sup>**

**AIP Conference Proceedings 1832(1):040031 · May 2017 ISSN: 0094-243X**

## 2016

31. Effect of Hydrodynamic interaction on free volume changes and the Mechanical properties of SGFR-PBT composites.

L.M. Munirathnamma and **H.B.Ravikumar.**

**Polymer composites, 39:1878–1886, 2018. JUL 2016**

**IF = 2.324**

32. Effect of TiO<sub>2</sub> nano-filler on the electrical conductivity and free volume parameters of PSAN/TiO<sub>2</sub> nanocomposites.

S.Ningaraju and **H.B.Ravikumar.**

**Polymer composites, 39:1403-1412,2018.**

**IF = 2.324**

33. Microstructural characterization of short glass fiber reinforced polyethersulfone composites: A positron lifetime study.

L.M.Munirathnamma and **H.B.Ravikumar**

**J. Appl. Polym. Sci. 2016, 133(32), 43647.**

**IF = 1.87,**

**August 20, 2016,**

34. Whole-Pattern Fitting and Positron Annihilation Studies of Magnetic PVA/ $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> Nanocomposites.

K. S. Prashanth, S. S. Mahesh, M. B. Nanda Prakash, S. Ningaraju, **H. B. Ravikumar,**

R. Somashekar, B. M. Nagabhushana

**Braz J Phys (2016) 46:262–272,**

**IF = 0.9,**

June 2016, Volume 46, Issue 3, pp 262–272



35. Solution Combustion Synthesis of Cr<sub>2</sub>O<sub>3</sub> Nanoparticles and Derived PVA/Cr<sub>2</sub>O<sub>3</sub> Nanocomposites- Positron Annihilation Spectroscopic Study

K.S Prashantha, S.S Mahesh ,M.B Nanda Prakash, L.M. Munirathnamma, S.Ningaraju , **H.B.Ravikumar**, R.S Somashekar and B.M Nagabhushana

**Materials Today: Proceedings 3 (2016) 3646–3651**

ISSN: 2214-7853, November 2016

36. Effect of TiO<sub>2</sub> nano fillers on the electrical conductivity of PSAN/TiO<sub>2</sub> polymer nanocomposites  
S. Ningaraju, L. M. Munirathnamma, K. V. Aneesh Kumar, and **H. B. Ravikumar**  
**AIP Conference Proceedings 1731, 080045 (2016); doi: 10.1063/1.4947923** ISSN: 0094-243X, 24<sup>th</sup> May
37. Effect of hydrodynamic interaction on the free volume distribution of SGFR-PBT composites  
L. M. Munirathnamma, S. Ningaraju, K. V. Aneesh Kumar, and **H. B. Ravikumar**  
**AIP Conference Proceedings 1731, 080074 (2016); doi: 10.1063/1.4947952**  
ISSNs: 0094-243X, 24<sup>th</sup> May 2016
38. Oxygen ion implantation induced microstructural changes and electrical conductivity in Bakelite RPC detector material  
K. V. Aneesh Kumar, C. Ranganathaiah, G. N. Kumarswamy, and **H. B. Ravikumar**  
**AIP Conference Proceedings 1728, 020507 (2016); doi: 10.1063/1.4946558.**  
ISSNs: 0094-243X, 10<sup>th</sup> May 2016
39. Hydrodynamic interaction induced mechanical properties of SGF reinforced polyethersulfone  
L. M. Munirathnamma, S. Ningaraju, K. V. Aneesh Kumar, and **H. B. Ravikumar**  
**AIP Conference Proceedings 1728, 020660 (2016); doi: 10.1063/1.4946711.** ISSN: 0094-243X, 10<sup>th</sup> May

## 2015

40. Electron Beam Induced Microstructural Changes and Electrical Conductivity in Bakelite RPC Detector Material.  
Aneesh Kumar K.V, **H. B. Ravikumar**, S. Ganesh, and C. Ranganathaiah  
**IEEE Nuclear Transaction, 62, 2015, 306-313.** **I.F = 1.33**
41. Electron beam induced microstructural changes and electrical conductivity in Bakelite polymer RPC detector material: A positron lifetime study  
K V Aneesh Kumar, S Ningaraju, L M Munirathnamma, **H B Ravikumar** and C Ranganathaiah.  
**Journal of Physics, Conference series, 618, 2015.** ISSN, 17426588. **June 2015**
42. Physics Potential of the ICAL detector at the India based Neutrino Observatory (INO)  
**INO white paper, arXiv:1505.07380v1 [physics.ins-det] 27 May 2015**

## 2013

43. Thermally Induced Microstructural Changes and Its Influence on Electrical Conductivity of a Polymer-Based Bakelite RPC Detector Material: A Positron Lifetime Study.  
K.V. Aneesh Kumar, **H.B. Ravikumar**, C. Ranganathaiah  
**Journal of Applied Polymer Science, 130,(2013), 793-800.** 4/4/2013 **IF = 1.874**

## 2012

44. Information on individual interfaces in ternary polymer blends from positron annihilation lifetime studies  
D. Meghala, P. Ramya, T. Pasang, **H.B. Ravikumar**, C. Ranganathaiah.  
**AIP Conf. Proc. 1447, (2012) 641** ISSN: 0094-243X

## 2011

45. An effective tool to characterize adhesion at the interface of binary polymer blends: a free volume study  
J M Raj, Abdullah M. A. M. Altaweel, M N Chandrashekar, P Ramya, **H.B. Ravikumar**, C Ranganathaiah.



## 2009

46. Influence of free volume on the mechanical properties of epoxy based composites: A correlation study  
Abdullah M. A. M. Altaweel, **H. B. Ravikumar**, and C. Ranganathaiah  
**Physica. Status Solidi C 6, No. 11, (2009) 2401–2403.** IF = 0.392,

## 2007

47. Hydrothermal preparation and characterization of TiO<sub>2</sub>:AC composites.  
A.K. Subramani, K. Byrappa, G.N. Kumaraswamy, **H.B. Ravikumar**, C. Ranganathaiah, K.M. Lokanatha  
Rai, S. Ananda, M. Yoshimura.  
**Materials Letters, Volume 61, Issue 26, (2007) 4828-4831.** IF = 2.57

## 2006

48. Differential Scanning Calorimetric and Free volume Study of reactive compatibilization by EPDM – g - MA of  
Poly (trimethylene terephthalate) / EPDM blends.  
**H. B. Ravikumar**, C. Ranganathaiah, G. N. Kumaraswamy, M.V. Deepa Urs, J.H. Jagannath, A.S. Bawa  
and Sabu Thomas.  
**Journal of Applied Polymer Science, 100 (2006) 740 – 747.** IF = 1.874,
49. Miscibility window and Phase Separation in SAN/PMMA Blends investigated by Free volume measurements.  
G. N. Kumaraswamy, C. Ranganathaiah, M. V. Deepa Urs and **H. B. Ravikumar**.  
**European polymer journal, 42 (2006) 2655 - 2666.** IF = 3.51,
50. Positron Annihilation and Differential Scanning Calorimetric study of Poly (trimethylene terephthalate)/EPDM  
blend.  
**H.B. Ravikumar**, G.N. Kumaraswamy, S. Thomas and C. Ranganathaiah.  
**Polymer, 46 (2005) 2372-2380,** IF = 3.68

## 2005

51. Compatibilizer induced microstructural changes in Poly (trimethylene terephthalate)/EPDM blends studied by  
Positron Annihilation Lifetime Technique and Differential Scanning Calorimetry.  
**H. B. Ravikumar** and C. Ranganathaiah.  
**Polymer International, 54 (9) (2005) 1288-1295.,** IF = 2.074
52. Influence of free volume on the mechanical properties of Epoxy /Poly (methyl methacrylate) blends.  
**H.B. Ravikumar**, G.N. Kumaraswamy, Siddaramaiah and C. Ranganathaiah.  
**Journal of Materials Science, 40 (2005) 6523-6527.** IF = 2.592
53. Physico-Mechanical Characterization of Polyurethane/ Polyacrylonitrile Interpenetrating Polymer Networks  
By Positron Annihilation Lifetime Studies.  
H. Kumar, Siddaramaiah, G.N Kumara swamy, **H.B. Ravikumar** and C. Ranganathaiah.  
**Polymer International, 54 (2005) 1401-1407.** IF = 2.0744

## 2004

54. Water Diffusion Studies in a Soft Contact Lens Polymer and its Tolerance to UV Radiation studied by  
Positron Lifetime Technique.  
M.C. Thimmegowda, **H.B. Ravikumar**, and C. Ranganathaiah.  
**Journal of Applied Polymer Science, 92 (2004) 1355-1366.** IF = 1.874



**PUBLICATIONS IN INTERNATIONAL / NATIONAL SYMPOSIA  
(International Symposia)**

1. Effect of 250 keV Oxygen Ion Implantation Induced Structural Modifications in Glass RPC Detector Materials  
K.V. Aneesh Kumar, S. Ningaraju and **H.B. Ravikumar**  
Recent Advances in Materials Science and Biophysics' (RAMSB) held at Mangalore University during January 23-25, 2018.
2. Effect of TiO<sub>2</sub> nano filler on electrical conductivity of ABS/TiO<sub>2</sub> polymer nanocomposites: A free volume study" in ICASE-2017  
S.Ningaraju<sup>1</sup>, L.M.Munirathnamma<sup>1</sup>, K.V.Aneeshkumar<sup>1</sup>, B.H.Doreswamy<sup>2</sup> and **Dr. H.B.Ravikumar**  
**January 20-22, 2017, Regent's International College, Bangkok, Thailand.19-22<sup>nd</sup> Januaray 2017**
3. Solution Combustion Synthesis of Cr<sub>2</sub>O<sub>3</sub> Nanoparticles and Derived PVA/Cr<sub>2</sub>O<sub>3</sub> Nanocomposites-Positron Annihilation Spectroscopic Study  
K.S Prashantha, S.S Mahesh, M.B Nanda Prakash, L.M. Munirathnamma, S.Ningaraju , **H.B.Ravikumar**, R.S Somashekar and B.M Nagabhushana  
**Materials Today: Proceedings 3 (2016) 3646–3651**
4. Oxygen Ion Implantation Induced Microstructural and Electrical Conductivity of Bakelite RPC Detector Material.  
K.V. Aneesh Kumar<sup>1</sup>, G.N.Kumarswamy<sup>3</sup>, C. Ranganathaiah<sup>2</sup> and **H. B. Ravikumar**  
International Conference On Condensed Matter & Applied Physics,  
Department of Physics, Engineering College, Bikaner (Rajasthan) 2015
5. Hydrodynamic Interaction induced Mechanical Properties of SGF Reinforced Polyethersulfone.  
L. M. Munirathnamma<sup>1</sup>, S. Ningaraju<sup>1</sup>, K. V. Aneesh kumar<sup>1</sup> and **H.B. Ravikumar**  
**International conference on condensed matter & applied physics,**  
Department of Physics, Engineering College, Bikaner (Rajasthan) 2015
6. Effect of Short Glass fiber reinforcement on the Mechanical Properties of Polybutylene terephthalate : A Positron Lifetime study  
L.M. Munirathnamma, K.V. Aneesh Kumar, S. Ningaraju, C. Ranganathaiah and **H.B. Ravikumar.**  
**Icnm 14, Kottayam, December 2014**
7. Effect of electron beam irradiation on the optical and microstructural properties of glass RPC detector material  
K.V. Aneesh Kumar, S. Ningaraju, L.M.Munirathnamma, **H.B.Ravikumar** and C. Ranganathaiah.  
**Icnm 14, Kottayam, December 2014**
8. Electron beam induced microstructural changes and electrical conductivity in Bakelite polymer RPC detector material -A positron lifetime study  
K.V. Aneesh Kumar, L.M.Munirathnamma, S.Ningaraju, **H.B.Ravikumar** and C. Ranganathaiah.  
Proc. of the PPC 11-30, Goa 2014
9. Studies on Thermally induced microstructural changes and Electrical conductivity in Bakelite RPC detector material"  
K.V. Aneesh Kumar, **H.B. Ravikumar**, C. Ranganathaiah.  
Proc. of the APA 2013, **Chandigarh, Punjab**
10. A New tool to Characterize adhesion at the Interface of binary Polymer blends: A Free volume study.  
J.M. Raj, Abdullah M.A.M. Altaweel, M.N. Chandrasekhar, P. Ramya, **H.B. Ravikumar**, and C. Ranganathaiah .  
Proc. of the ICPPC-2010, Kottayam





11. Influence of Free volume on the mechanical properties of Epoxy based composites: A correlation Study  
Abdullah.M.A.M. Altaweel, **H.B.Ravikumar** and C Ranganathaiah  
ICPA-2009, Kolkatta
12. Thermal behavior of epoxy /poly (methyl methacrylate) blends studied by Positron Lifetime Spectroscopy.  
**H.B. Ravikumar**, C. Ranganathaiah, G.N. Kumara swamy, and M.V. Deepa Urs  
Proc. of the ICBC (2005), Kottayam, Kerala.
13. Composition dependent Free Volume study in PVC/PS blends by Positron Lifetime Technique.  
G.N. Kumaraswamy, C Ranganathaiah, J.H. Jagannath, A.S. Bawa, **H.B. Ravikumar** and M.V. Deepa Urs.  
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14. Positron Annihilation Lifetime Spectroscopy for the Characterization of Porous Materials.  
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**H.B. Ravikumar**  
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27. Contact lens biopolymers tolerance to UV radiation studied by Positron Lifetime Technique.  
**H.B. Ravikumar**, G.N. Kumara swamy, M.V. Deepa Urs and C. Ranganathaiah.  
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28. Influence of free volume on the mechanical properties of Epoxy /Poly (methylmethacrylate) blends  
**H.B. Ravikumar**, G.N. Kumaraswamy and C. Ranganathaiah.  
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Proc. of the DAE Solid-State symposium, **46** (2003) 130 Gwalior.
30. Structural Relaxation Studies in Polycarbonate (PC) using Positron Annihilation Lifetime Method.  
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Proc. of the DAE Solid-State symposium, **45** (2002) 423 - 424, Chandigarh.



**Orientation Course: 17<sup>th</sup> July to 13<sup>th</sup> August 2008** for the period of 28 days at Academic Staff College, University of Mysore, Mysore

**Refreshers Course : 03**

**Refreshers Course in Experimental Physics: 14-02- 2017 to 01-03- 2017** for the period of 16 days at St Phelomena's College, Mysore.

**Refreshers Course on Materials Science:**

**28-10- 2014 to 21-11- 2014** for the period of 21 days at Academic Staff College, University of Mysore, Mysore

**Refreshers Course on Bio-Physics and Crystallography:**

**08-09- 2011 to 28-09- 2011** for the period of 21 days at Academic Staff College, Madras University, Chennai.

**Foreign visit:**

**Invited talk : ( International Conference)**

Effect of TiO<sub>2</sub> nano filler on electrical conductivity of ABS/TiO<sub>2</sub> polymer nanocomposites: A free volume study” in ICASE-2017 held at **Regent's International College, Bangkok, Thailand from 19-22<sup>nd</sup> January 2017.**

**Member- Faculty of Engineering 2022-2024**

**Member- Faculty of Science and Technology 2019-2021**

**Member, Admission committee, DOS in Physics, 2019-20**

**Member- Technical committee, International conference. UPE, UOM, Mysuru.**

**BOE Chairman.2017-18**

**Member, Admission committee, Electronics. 2016-17**

**Indian Science congress (2016) Member registration committee**

**Life member- Indian Science congress Association**

**Member - Indian Neutrino observatory**

**Member - Faculty of Science and Technology 2007-09.**

**Ph.D Students:**

1	<b>Aneesh Kumar. K.V</b>	Part time	Ex.9.2/Ph.D/AKKV/2014-15, <b>Ph.D awarded on 16-07-2018</b>
2	<b>Munirathnamma. L.M</b>	UGC-RGNF	ORDER NO.Ex.9.9/Ph.D/PR1288/2013-14, Dated 17-04-2013 <b>Ph.D awarded on 01-12-2018</b>
3	<b>Ningaraju. S</b>	CSIR-UGC	ORDER NO.DOR Ex.9.9/Ph.D/PR1378/2013-14, Dated 11-09-2013 , <b>Ph.D awarded on 06-09-2019</b>
4	<b>Raghavendra .M</b>	University fellowship	ORDER NO.DOR Ex.9.2/Ph.D/RM/107/2018-19, Dated 18-05-2018 (Registered)
5	<b>Boranna.M.P</b>	CSIR-UGC	ORDER NO.DOR Ex.9.2/Ph.D/PR64/2019-20, Dated 06-06-2019 (Registered)
6	<b>Mahanthesh. K.Y</b>	Part time	ORDER NO.DOR Ex.9.2/Ph.D/MKY/2020-21, /P.01/04 Dated 10-12-2020 (Enrolled)