



## **RESUME of Dr. JIJIMON K THOMAS**

### **( WITH COMPLETE LIST OF PUBLICATIONS)**

Name	<b>JIJIMON K THOMAS</b>
Born	17 <sup>th</sup> March 1967
Sex	Male
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### **ACADEMIC PROFILE**

#### **School Education**

Mariagiri English School, Peermade,Kerala,India : 1972-1980

St.Stephen's English School, Pathanapuram,Kerala,India : 1980-1982

#### **College Education**

Mar Ivanios College,Trivandrum,Kerala,India : 1982-1987

Agra college,Agra,Uttar Pradesh, India : 1987-1989  
 Institute of Basic Sciences, Agra,Uttar Pradesh, India : 1989-1990  
 Mahatma Gandhi University,Kerala,India : 1991-1996

## ACADEMIC RECORDS

Degree	School/College/ University	Year of Passing	Subject	Class
X <sup>th</sup> Pre- degree	Government of Kerala Mar Ivanios College University of Kerala	1982 1984	All Group.1	First First
BSc	Mar Ivanios College University of Kerala	1987	Physics	First
MSc	Agra College,Agra Agra University	1989	Physics	First
MPhil	Institute of Basic Sciences Agra University	1990	Solid State Physics	First
PhD	Mahatma Gandhi University/ Regional Research Laboratory, CSIR Trivandrum	1997	Solid State Physics	

## PROFESSIONAL TRAINING

1. Orientation course for college lecturers: 11<sup>th</sup> June to 8<sup>th</sup> July 1998  
Academic Staff College University of Kerala
2. Refresher course (physics) for college lecturers: 3-24<sup>th</sup> August 2001  
Academic Staff College University of Kerala
3. Beginner's Course of the Intel Teach to the Future Program,

- 4<sup>th</sup> Dec 01 to 1<sup>st</sup> Jan 02 Mar Ivanios College Trivandrum
4. Training program Web-based systems development and database management at EPTRI Hyderabad 28<sup>th</sup> – 30<sup>th</sup> Nov, 2002
  5. Computer Software training course at ER&DCI Government of India Trivandrum 6<sup>th</sup> - 13<sup>th</sup> Jan 03.
  6. Training on Scientometry at M.S.Swaminathan Research Foundation Chennai 3<sup>rd</sup> - 9<sup>th</sup> April 2003
  7. Training on Patent Drafting at TIFAC New Delhi
  8. National seminar on 'Intellectual Property Rights and Higher Education' 16 August 2006
  9. Advanced Workshop on Recent Developments in Nanomaterials' 15-19 January, 2007, The Abdus Salam International Centre for Theoretical Physics, Strada Costiera 11, 34014 Trieste, Italy
  10. National Workshop - CPE Colleges, University Grants Commission, PSG College Coimbatore, 22-23 March 2007
  11. National Conference on Recent Trends in Optoelectronics & Laser Technology (NCOL 2007), University of Kerala, Trivandrum India (9-11 April 2007)
  12. International Conference on Perspectives in Vibrational Spectroscopy ICOPVS 2008 Trivandrum
  13. NCAMDT-2008 NATIONAL CONFERENCE ON ADVANCED MATERIALS, DEVICES AND TECHNOLOGIES-1

## Fellowship

- Junior Research Fellowship: Department of Electronics, Government of India 1991
- Senior Research Fellowship: Department of Electronics, Government of India 1992

## Experience

Teaching : 13 years (BSc and, MSc)  
 Research : 16 years (Superconductivity, Electronic Ceramics Materials, Nanoscience and Technology Material Science and Condensed Matter Physics )

## Membership of Professional Bodies

1. **Member, New York Academy of Sciences USA – 1996**
2. **Member, American Ceramic Society 2006**

### 3. Indian Science Congress Association(Life member)

## Honors&Awards

- Listed in the Marquis **Who's Who?** 16<sup>th</sup> Edition -1999-2006
- **Fast Track Young Scientist Award & Project**, Department of Science and Technology, Government of India 2001
- Distinguished Service to Education Award (International Biographical Centre,Cambridge): 2007
- Leading Educators of the World-2007 (International Biographical Centre,Cambridge)
- 21<sup>st</sup> Century Award for Achievement 2007 (International Biographical Centre,Cambridge)
- International Scientist of the Year -2007 (International Biographical Centre,Cambridge)
- Selected as one of the Top 100 Scientists of the World -2007 (International Biographical Centre,Cambridge)

## Research Guidance

BSc	. 50 projects (University of Kerala)
MSc	: 35 Projects (University of Kerala,MahatmaGandhi University since 1995)
Mphil	: 3 Projects (University of Kerala ) Completed
PhD	: 1 Completed 5 Projects continuing (University of Kerala ) 1 Projects continuing Karunya University

## Positions held

Lecturer in Physics	: BSc and MSc 1993-1998
Senior Lecturer in Physics	: BSc and MSc 1999 onwards
Selection Grade Lecturer	: From 2003 onwards
Reader	: Due from 2003 onwards
Secretary	: Mar Ivanios College Guardian-Teacher Association. 1998-2000
Associate Director Technology	: Mar Ivanios Centre for Information 1997-2000
Convener	: Mar Ivanios College Computer Centre Committee - 2000-2001

Research Member : Materials Science Research Division  
1997 onwards

Scientific Officer : Department of Science & Technology,  
Government of Kerala, Kerala State Council  
for Science Technology and  
Environment. 2002-2005.

Member : State Level Advisory Council, Centre for  
Development of Coir Technology  
Government of Kerala 2003

Seminars organized : National seminar on 'Intellectual Property  
Rights and Higher Education' 16 August 2006

## Projects

1. **Development of Advanced Electronic Ceramic Materials as Nano particles and their characterization Fast Track Young Scientist Project, Department of Science and Technology, Government of India 2001 [Rs. 10.32 lakhs] (Completed)**
2. **2.Development of Nanoparticles of  $\text{CaTiO}_3$ ,  $\text{MgTiO}_3$  and their Combinatorial Ceramic Oxides through a novel modified combustion process for Microwave Applications: Department of Space, ISRO Government of India [Rs.9.95 lakhs].(Ongoing)**
3. **Study on the effect of addition of nano-particles of ceramic oxides on the critical current densities of  $\text{YBa}_2\text{Cu}_3\text{O}_{7-6}$  superconducting thick films[ Rs 12.5 laks ] KSCSTE Govt of Kerala(ongoing)**
4. **Development of  $\text{Ba MO}_3$  and  $\text{RE Ba}_2\text{MO}_6$  (RE= Y, Sm, Gd, Yb, M=Nb and Sn) , as nano particles for their applications as Electronic materials, microwave dielectric materials and substrate materials for High Tc superconductors,UGC Rs 6 lakhs (Ongoing]**
5. **BRNS Project-collaborative project between BRNS,Mar Ivanios College and Pankajakasthury institute of technology Department of Atomic Energy, BARC-BRNS Perovskites as Nuclear waste disposal materials (Approved)**

## Publications

Category	Published /Sealed /Edited	In press / Accepted	Communicated	Total
SCI Journals	43		2	45
Proceedings	33			33
International Patents	4(USA-3 Europe-1)			4
Indian patents	2			2
JCPDS Files	7			7
Books/Texts	4			4
Grand Total				95

**Media reports**

**: 10**

### **Instrumental Experiences (Research)**

- X-ray Absorption Spectroscopy
- Microphotometer Analysis
- X-ray Diffraction Techniques(Rigaku Japan)
- Scanning Electron Microscopy (JEOL.JSM.35C)
- Impedance Analyzer (HP 4192A) for dielectric measurements
- Critical transition temperature and current density measurements (Keithley Mille ammeter and Nano voltmeter)
- Fourier Transform Infrared Spectrometer(Perkin Elmer)
- Delta Nu Raman Spectrometer
- Hioki LCR meter

## RESEARCH PUBLICATIONS IN REFEREED (SCI) JOURNALS

1. J. Koshy **J.K.Thomas**, J. Kurian, Y.P. Yadava and A.D. Damodaran  
YBa<sub>2</sub>HfO<sub>5.5</sub>: Synthesis, properties and compatibility with YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-  
[Materials Letters, 15, 298 \(1992\) \(Netherlands\)](#)
2. J. Koshy, **J.K.Thomas**, J. Kurian, Y.P. Yadava and A.D. Damodaran  
The structural and superconducting properties of the YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-  
-HfO<sub>2</sub> system  
[Journal of Applied Physics, 73,7 3402 \(1993\) \(U.S.A\)](#)
3. J. Koshy, **J.K.Thomas**, J. Kurian, Y.P.Yadava and A.D. Damodaran  
Superconducting YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7-d</sub> thick film (T<sub>c(0)</sub> = 92 K) on SmBa<sub>2</sub>NbO<sub>6</sub>,  
a newly developed perovskite ceramic substrate  
[Physica C, 215, 219 \(1993\) \(The Netherlands\)](#)
4. J. Koshy, **J.K. Thomas**, J. Kurian, Y.P.Yadava and A.D. Damodaran  
Development and characterisation of GdBa<sub>2</sub>NbO<sub>6</sub>, a new  
perovskite ceramic substrate for superconducting YBCO thick films  
[Mater. Letters, 17, 393 \(1993\) \(The Netherlands\)](#)
5. J. Koshy, J.Kurian, **J.K. Thomas**, Y.P. Yadava and A.D. Damodaran  
Rare-earth barium niobates: a new class of potential substrates for  
YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-superconductors  
[Jap. J.Appl. Phys., 33, 117 \(1994\) \(Japan\)](#)
6. J. Koshy, **J.K. Thomas**, J. Kurian, Y.P.Yadava, M.A. Ittyachan and  
A.D. Damodaran  
Superconductivity in YBa<sub>2</sub>Cu<sub>3</sub>O<sub>7</sub>-YBa<sub>2</sub>HfO<sub>5.5</sub> composites by rapid  
quenching in air, [Physica C, 219, 141 \(1994\) \(The Netherlands\)](#)

7. **J.K. Thomas**, J. Koshy, J. Kurian, Y.P.Yadava and A.D. Damodaran  
Electrical transport and superconductivity in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}-\text{YBa}_2\text{HfO}_{5.5}$   
a percolation system  
[J. Appl. Phys., 76,4, 2376 \(1994\) \(U.S.A\)](#)
8. **J. K. Thomas**, J.Koshy, J. Kurian and A.D.Damodaran  
Superconducting YBCO and YBCO-Ag thick film ( $T_{c(0)} = 92 \text{ K}$ ) by dip  
coating on  $\text{GdBa}_2\text{HfO}_{5.5}$ , a new perovskite ceramic substrate  
[Supercond. Sci. Technol., 8, 825 \(1995\) \(U.K\)](#)
9. **J.K. Thomas**, J. Kurian, M.A. Ittyachan and J. Koshy  
Superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$  and  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ -Ag thick films by dip  
coating on  $\text{YBa}_2\text{HfO}_{5.5}$  ceramic substrates  
[Mat. Lett. , 25, 301 \(1995\) \(U.S.A\)](#)
10. **J K Thomas** and J Koshy  
Synthesis and characterisation of  $\text{SmBa}_2\text{HfO}_{5.5}$  and its use as  
substrate for high  $T_c$  superconductors  
[International Journal of Inorganic Materials 3, 737 \(2001\) \(USA\)](#)
11. J Koshy, R Jose, Asha M John, **J K Thomas** and J Kurian  
Development of  $\text{Ba}_2\text{REMO}_6$  (RE=Rare-Earth, M=Hf, Zr, Sn, Nb, Sb): A  
New class of Substrate materials for high  $T_c$  Superconductors  
[Metal, Materials and Processes 13, 301, \(2002\)\(India\)](#)
12. J Koshy, R Jose, Asha M John, **J K Thomas**, S Suresh Kumar and A D  
Damodaran, High Temperature Superconductivity: Challenges in IPR  
Regime and Strategies for National Initiatives  
[Journal of Intellectual property Rights 17, 292 \(2002\)\(India\)](#)
13. Sam Solomon, James T. Joseph, H. Padma Kumar and **Jijimon K  
Thomas**, Effect of ZnO doping on the microwave properties of  
 $\text{LnTiNbO}_6$  (Ln=Sm or Dy) ceramics [Materials Letters \(USA\).Vol 60,  
\(23\), October 2006, Pages 2814-2818,](#)
14. **J.K. Thomas**<sup>\*</sup>, H. Padma Kumar, R. Pazhani, S. Solomon, R. Jose,<sup>1</sup> and  
J. Koshy, Synthesis of Strontium Zirconate as nanocrystals through a  
single step combustion process [Materials Letters 61 \(2007\) 1592–  
1595, \(USA\)](#)
15. R Jose, Asha M John, **J K Thomas**, J. James and J Koshy

- Synthesis, crystal structure , dielectric properties and potential use of nanocrystalline complex perovskite ceramic oxide  $\text{Ba}_2\text{ErZrO}_{5.5}$   
**Materials Research Bulletin 42 (2007) 1976–1985**
16. H.Padma Kumar , James T.Joseph , **J.K.Thomas** , M.R.Varma<sup>c</sup> and Sam Solomon, Influence of Zno addition on the microwave dielectric properties of  $\text{LnTiTaO}_6$  (Ln = Pr, Sm and Dy) dielectric resonators,  
**Material Science and Engineering B143 (2007) 51–54.**
  17. James T. Joseph, H. Padma Kumar, M. R. Varma, **J. K. Thomas** , Sam Solomon,\*  
Effect of  $\text{Nb}_2\text{O}_5$  addition on the dielectric characteristics of  $\text{DyTiTaO}_6$  microwave ceramics  
**Materials Letters (USA 62 (2008) 1064–1066**
  18. Lovely Jacob, H.Padmakumar, K.G.Gopchandran, **J.K.Thomas** and Sam Solomon  
Photoluminescence and dielectric properties of  $\text{LnTiTaO}_6$  (Ln = Ce,Pr, Sm) Polycrystals ,**Journal of Materials Science: Materials in Electronics (2007- DOI 10.1007/s10854-00-9112-5)**
  19. **J.K. Thomas**\*, H. Padmakumar, S. Solomon<sup>1</sup>, Chandy N.George,K.Joy and J. Koshy  
Synthesis of nano particles of  $\text{SmBa}_2\text{HfO}_{5.5}$  through a single step auto-igniting combustion technique, **physica status solidi (a)**, 204, No.9, 3102–3107 (2007)
  20. H. Padma Kumar, **Jijimon. K Thomas**,; Manoj Raama Varma, ,Sam Solomon,Synthesis and characterization of thermally stable, high Q,  $\text{Nd}_x\text{Y}_{1-x}\text{TiTaO}_6$  dielectric resonators, **Journal of Alloys and Compounds ,Volume 455, Issues 1-2, 8 May 2008, Pages 475-479**
  21. C. Vijayakumar, H. Padma kumar<sup>a</sup>, **Jijimon .K. Thomas**, P.R.S. Wariar, J.Koshy Synthesis and characterization of  $\text{Ba}_2\text{YSbO}_6$  nanoparticles through a modified combustion process, **Materials Letters 61 (2007) 4924–4927 (2007)**
  22. H. Padma Kumar, C. Vijayakumar, Chandy N. George, Sam Solomon, R. Jose c, **J. K. Thomas** and J. Koshy  
Synthesis, Characterization and Sintering of  $\text{BaZrO}_3$  Nanoparticles synthesized through a single step combustion process  
**Journal of Alloys and Compounds 458 (2008) 528–531**

23. C. Vijayakumar, H. Padmakumar<sup>a</sup>, **Jijimon .K. Thomas**, S.U.K. Nair, P.R.S. Warier, J. Koshy  
Synthesis and characterization of Ba<sub>2</sub>SmSbO<sub>6</sub> nanoparticles  
**ModernPhysics letters B, Vol. 21, No. 19 (2007) 1227-1234**
24. Sam Solomon, H. Padma Kumar, Lovely Jacob, **J.K. Thomas** and Manoj Raama Varma.  
Ln(Zr<sub>1/3</sub>Ti<sub>2/3</sub>)TaO<sub>6</sub> (Ln = Ce, Pr, Nd and Eu) : A Novel group of Microwave ceramics  
**Journal of Alloys and Compounds**  
**461,675(2008)**doi:10.1016/j.jallcom.2007.07.083
25. H. Padma Kumar , **J.K. Thomas**, M.R. Varma and Sam Solomon  
Synthesis and characterization of thermally stable, high Q, NdxY1-xTiTaO<sub>6</sub> dielectric resonators  
**Journal of Alloys and Compounds** 2007 Published by Elsevier B.V.  
2 doi:10.1016/j.jallcom.2007.01.149
26. Composites and solid solutions of Pr-Y Titanium Tantalate microwave ceramics  
H. Padma Kumar, James T. Joseph, **J.K. Thomas**, K. Joy, Sam Solomon  
**Journal of Materials Science, Materials in Electronics DOI**  
**10.1007/s10854- 008-9763-52008)**
27. H. Padma Kumar , Annamma John , C. Vijayakumar b, **J.K. Thomas**, Manoj Raama Varm , Sam Solomon, Synthesis of low loss, thermally stable CexY1-xTiTaO<sub>6</sub> Microwave ceramics,  
**Materials Research Bulletin 44 (2009) 276–279**
28. C. Vijayakumar, H. Padma Kumar, V.T. Kavitha, **J.K Thomas**, P.R. Sobhana Warier, J. Koshy, Synthesis and characterization of Ba<sub>2</sub>DySbO<sub>6</sub> nanoparticles through a modified combustion process,**Journal of Alloys and Compounds** xxx (2008) xxx–xxx,2008 Published by Elsevier B.V.doi:10.1016/j.jallcom.2008.08.013 -.
29. C.S. Prasanth, H. Padma Kumar, R. Pazhani, Sam Solomon, **J.K. Thomas**  
Synthesis, Characterization and Microwave Dielectric Properties of CaZrO<sub>3</sub> nanoparticles  
**Journal of Alloys and Compounds DOI,10.1016/j.jallcom.2007.09.098**
30. **J.K Thomas**<sup>\*</sup>, H Padma Kumar, R. Pazhani, V. Suni, K Joy, S Solomon<sup>1</sup> and J Koshy  
Nano-crystalline Gd Ba<sub>2</sub>HfO<sub>5.5</sub> perovskite dielectric material –A single step synthesis and its characterization  
**Journal of Physics and Chemistry of Solids 70,703-706(2009)**
31. Chandy N. George , **J. K. Thomas**, George Kurian, Thomas Kuruvilla, K. C. Mathai,H. Padma Kumar, R. Jose and J. Koshy

- Single step combustion synthesis of SrTiO<sub>3</sub> nanopowder  
**Journal of Alloys and Compounds, 486,711-715(2009)**
32. Chandy Nellimoottil George, Thomas Kuruvilla, George Kurian, Jacob Koshy, **Jijimon Kumpukattu Thomas**, Kumpamthanath Chacko Mathai, Hariharan Padma Kumar Rajan Jose  
Synthesis of BaTiO<sub>3</sub> Nanoparticles through a Single Step Auto-igniting Combustion Technique and their Characterization  
**Materials Characterisation, 60,322-326(2009)**
33. C. Vijayakumar, H. Padmakumar, Sam Solomon, **Jijimon .K. Thomas**, P.R.S. Warier, J. Koshy  
Synthesis and characterization of nanoparticles of Ba<sub>2</sub>GdSbO<sub>6</sub> A perovskite ceramic material.  
**Bull. Mater. Sci., Vol. 31, No. 5, (2008)**
34. C.S. Prasanth, H. Padma Kumar, R. Pazhani, Sam Solomon, **J.K.Thomas**  
Synthesis, characterization and microwave dielectric properties of nanocrystalline CaZrO<sub>3</sub> ceramics, **Journal of Alloys and Compounds 464 (2008) 306–309,**
35. C. VijayaKumar, H. Padma Kumar, Sam Solomon, **J.K. Thomas**, P.R.S. Warier, Annamma John  
FT-Raman and FT-IR Vibrational spectroscopic studies of nanocrystalline Ba<sub>2</sub>RESbO<sub>6</sub> (RE = Sm, Gd, Dy and Y) perovskites  
**Journal of Alloys and Compounds Volume 480, Issue 2, 8 July 2009, Pages 167-170**
36. Sam Solomon, H. Padma Kumar, Sumesh George and **J.K. Thomas**  
Synthesis, structural analysis and microwave dielectric properties of Bi and Pb substituted LnTiTaO<sub>6</sub> (Ln = Ce, Pr and Nd) ceramics,  
**Journal of Materials Science: Materials in Electronics Volume 21, Number 1 / 27-32 January, 2010**
37. H. Padma Kumar, Annamma John, **J.K. Thomas**, Benny George and Sam Solomon, PbO doped Lanthanide Titanium Tantalate microwave ceramics, **Materials Letters, ,( Accepted 2009)**
38. Hariharan Padma Kumar, Shyla Joseph, Sam Solomon, Manoj Raama Varma, **Jijimon Kumpukattu Thomas**

**Synthesis, Structure Analysis, and Microwave Dielectric Properties of LnTiSb<sub>x</sub>Ta<sub>1-x</sub>O<sub>6</sub> (Ln=Ce, Pr, and Nd) Ceramics (p 347-352) Volume 5 Issue 4 , Pages 325 - 418 (July 2008)**

39. Sam Solomon , Lovely Jacob, H. Padma Kuma, K. G. Gopchandran and **J. K. Thomas**, Photoluminescence and dielectric properties of Eu<sup>3+</sup> substituted microwave ceramics ,*Journal of Materials Science: Materials in Electronics* [10.1007/s10854-009-0031-0](https://doi.org/10.1007/s10854-009-0031-0) December 15, 2009
40. M.K. Suresh, H. Padma Kumara, H. Sreemoolanathan, **J.K. Thomas** and Sam Solomon, Microwave and Photoluminescent Characterizations of Sb and Pb Substituted (Ca<sub>2</sub>Mg<sub>3</sub>)(Nb/Ta) <sub>2</sub> TiO<sub>12</sub> Ceramics, *Journal of Alloys and Compounds*, ,( Accepted 2010)
41. H. Padma Kumar, M.K. Suresh, **J.K. Thomas**, Annamma John and Sam Solomon, Effect of WO<sub>3</sub> and MoO<sub>3</sub> addition on LnTiTaO<sub>6</sub> (Ln = Ce, Pr and Nd) microwave ceramics, *Journal of Alloys and Compounds*, [Journal of Alloys and Compounds Volume 478, Issues 1-2, 10 June 2009, Pages 648-652](https://doi.org/10.1016/j.jallcom.2009.06.062)
42. H. Padma Kumar, Sumesh George, **J.K. Thomas** and Sam Solomon Synthesis, Structural Analysis and Microwave Dielectric Properties of Bi<sub>x</sub>Ln<sub>1-x</sub>TiTaO<sub>6</sub> (Ln = Ce, Pr and Nd) Ceramics, *Journal of Material Science; Materials for Electronics*, **21,27-32(2010)**
43. **J.K. Thomas**, H. Padma Kumar, Sam Solomon, K.C. Mathai and J. Koshy, Nano crystalline SrHfO<sub>3</sub> synthesised through a single step auto-igniting combustion technique and its characterization **Communicated, Journal of Alloys and Compounds 2010**
44. **J.K. Thomas**<sup>\*</sup>, H. Padma Kumar, V.S. Prasad, Sam Solomon Nano crystalline BaHfO<sub>3</sub> synthesized through a single step auto-igniting combustion technique and its characterization **Communicated, Ceramic International, 2010**
- 45 M.K. Suresh , **J.K. Thomas** ,\* H. Sreemoolanadhan, C.N. George , Annamma John Sam Solomon , P.R.S. Warier, J. Koshy , Synthesis of nanocrystalline magnesium titanate by an auto-igniting combustion technique and its structural, spectroscopic and dielectric properties **Materials Research Bulletin 45 (2010) 761–765**

**PUBLICATIONS IN SEMINAR/SYMPOSIA / CONFERENCE PROCEEDINGS AND POSTERS.**

1. **J.K. Thomas**, J. Kurian, J. Koshy, P.S. Mukherjee, Y.P. Yadava and A.D. Damodaran  
Development of a substrate for superconducting microstrip transmission lines  
[Proc. National Symp. Antennas and propagation, Cochin,1993 \(India\)](#)
2. J. Koshy, **J.K. Thomas**, J. Kurian, Y.P. Yadava and A.D. Damodaran  
Superconductivity in  $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}\text{-HfO}_2$  system  
[Proc. Fifth Kerala Science Congress, Kottayam, 1993\(India\)](#)
3. J. Koshy, **J.K. Thomas**, J. Kurian, Y.P. Yadava and A.D. Damodaran  
 $\text{YBa}_2\text{HfO}_{5.5}$ : Synthesis, properties and compatibility with  $\text{YBa}_2\text{Cu}_3\text{O}_7$ .  
[Proc. Fifth Kerala Science Congress, Kottayam, 1993\(India\)](#)
4. J. Koshy, **J.K. Thomas**, J. Kurian, Y.P. Yadava and A.D. Damodaran  
Development of novel substrates for superconductor films  
[Invited presentation in Indo-US Symposium on Thin Films, University of Pune 1993\(India\)](#)
5. **J.K.Thomas**, P.R.S. Warier, J.Kurian, Y.P. Yadava, J. Koshy and A.D. Damodaran  
Superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_7$  thick film ( $T_{c(0)} = 92 \text{ K}$ ) by spin coating on  $\text{GdBa}_2\text{NbO}_6$ : a new non-reacting ceramic substrate  
[Proc. Sixth Kerala Science Congress, Trivandrum, 1994\(India\)](#)
6. P.R.S. Warier, **J.K. Thomas**, J. Kurian, J. Koshy, Y.P. Yadava and A.D. Damodaran  
Superconducting  $\text{YBa}_2\text{Cu}_3\text{O}_7$  thick film ( $T_{c(0)} = 92 \text{ K}$ ) by screen printing on  $\text{SmBa}_2\text{SbO}_6$ , a newly developed cubic perovskite ceramic substrate  
[Proc. Sixth Kerala Science Congress, Trivandrum, 1994\(India\)](#)
7. Asha M. John, **J.K.Thomas**, R.Jose, J.Kurian, P.K.Sajith and J.Koshy  
Rare Earth Barium Hafnates- Synthesis , Characterisation and their possible application as Substrates for high  $T_c$  superconductors.  
[Proc. of the DAE Solid State Symposium, Bombay Vol 39\(C\) 1996. \(India\)](#)
8. R Jose, Asha M John, R Divakar, **J K Thomas** and J Koshy  
Synthesis and characterisation of Barium holmium zirconate, a new perovskite oxide through a modified combustion process

[Conference on perspectives in Physical metallurgy and Material Science July 12-14,\(2001\) Indian Institute of Science, Bangalore \(India\)](#)

9. J Koshy, R Jose, Asha M John, **J K Thomas**, S SureshKumar and A D Damodaran  
High Temperature Superconductivity: Challenges in IPR Regime and Strategies for National Initiatives,  
[Proceedings of the National Seminar on Challenges in IPR regime and need for new Strategies for R&D 2001,Trivandrum,\(India\).](#)
10. J. Koshy, **J.K. Thomas**, R.Jose and A.D. Damodaran  
A brief review of patent activities at Regional Research Laboratory(CSIR),Trivandrum on high Tc superconducting thick films on novel ceramic substrates.  
[http://www.patentmatics.com\(Feb.2002\) \(India\)](http://www.patentmatics.com(Feb.2002) (India))
11. K.C.Mathai and **J.K.Thomas**  
Superconductivity, the technology for the 21<sup>st</sup> century –a new vision,  
[15<sup>th</sup> Kerala Science Congress \(2003\). \(India\)](#)
12. J.Koshy and **J.K.Thomas**  
Nanoscience and nanotechnology 'The way to the future'  
Challenges in human resources Development.  
[Compendium on HRD for Science and Technology, DST, Government of Kerala, Trivandrum,India\(2003\) \(India\)](#)
13. **Jijimon K Thomas** and H. Padmakumar  
Synthesis and Characterization of Nanoparticles of Yttrium Barium Hafnium Oxide by a Single Step Modified Combustion Route,  
Materials Science & Technology **International Conference** ,  
**2006,Proceedings Title: Nanostructured Materials: Synthesis, Characterization and Applications, October 2006 Cincinatti,Ohio (USA)**
14. **J.K. Thomas**, H. Padma Kumar and J. Koshy  
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