CURRICULUM VITAE OF Dr. R. JAYAVEL

Name : **Dr. R. JAYAVEL** DOB: **22.05.1964**

Désignation : PROFESSOR & DIRECTOR (RESEARCH)

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Professional Experience: Teaching – **22 Years**; Research – **27 Years**

Academic Positions:

Position	Period	Institution	Nature of work
Director	3rd June 2015-Till Date	Centre for Research, Anna University	Research, Teaching & Administration
Visiting Professor	15-30th June 2016.	University of South Australia, Adelaide.	Research
Director	21st Oct.2005- 2nd June 2015	Centre for Nanoscience & Technology, Anna University	Research, Teaching & Administration
Visiting Professor	15th Oct.-26th Oct.2012	University of Queensland, Australia.	Research
Visiting Professor	23rd Aug.- 22nd Oct. 2010	University of Goettingen, Germany.	Research
Professor	1st Jan. 2009 – Till Date	Crystal Growth Centre Anna University.	Research & Teaching
Visiting Professor	1st Dec.06-31st March 07	Research Inst. of Electronics Shizuoka University, Japan	Research
Associate Professor	1st Jan.06 -31st Dec. 08	Crystal Growth Centre Anna University.	Research & Teaching
Assistant Professor	18thApril '02 -31st Dec.05	Crystal Growth Centre, Anna University.	Research & Teaching
Special Researcher	15thAug.'01-31st Mar.'03	National Institute for Materials Science, Japan.	Research
STA Fellow	15thAug.'99-14thAug.'01	National Research Institute for Metals, Tsukuba, Japan.	Research
Lecturer	13thDec.'95-14thAug."99	Crystal Growth Centre, Anna University.	Research & Teaching

Education:

Degree	Institution	Period	Branch	Class
Ph.D.	Anna University	April 1990 - Feb. 1995	Materials Science (Crystal Growth)	By Thesis
M.Phil.	Anna University	Sep.1988 - March 1990	Physics	I Class
M.Sc.	University of Madras	June 1986- April 1988	Physics	I Class
B.Sc.	University of Madras	June 1982- April 1985	Physics	I Class

Areas of Research:

- Synthesis and characterization of Bulk Nanomaterials
- Nanocrystalline Thin Films for Sensor Applications
- Hybrid Nanostructures for Energy and Environmental Applications
- Development of functional Nanostructures
- Studies on the growth aspects of Laser and Nonlinear Optical Crystals

Other Academic Responsibilities:

Position	Programme	Duration	Institution	Responsibility
Convener	Fourth International Workshop on Advanced Funtional Nanomaterials	22-24, March 2017	Centre for Nanaoscience and Technology	Organization and Lecture
Convener	National Workshop and Hands on Training on Thin film solar cells	11-12, Nov. 2016	Centre for Nanoscience and Technology	Organization
Convener	Nanommet-2016 "Recent Trends in Nanoscience and Tech.	6-7, Oct. 2016	Centre for Nanoscience and Technology	Organization and Lecture
Convener	Third International Workshop on Advanced Functional Materials	16-18, Dec.2015	Centre for Nanoscience and Technology	Organization and Lecture
Chairman	Nanomeet-2014 Recent Trends in Nanobiotechnology	16-17, March 2014	Centre for Nanoscience and Technology	Organization and Lecture
Chairman	Nanomeet-2013 Recent Trends in NanoBiotechnology	19-20, Sep.2013	Centre for Nanoscience and Technology	Organization and Lecture
Convener	Second International Workshop on Advanced Functional Materials	28-30, Jan. 2013	Centre for Nanoscience and Technology	Organization and Lecture
Coordinator	Nanomeet-2012	27-28, Feb. 2012	Centre for Nanoscience and Technology	Organization and Lecture
Coordinator	Nanomeet-2011.	7-8,March 2011	Centre for Nanoscience and Technology	Organization and Lecture
Convener	International Workshop on Advanced Functional Nanomaterials	21-24th Feb. 2011	Centre for Nanoscience and Technology	Organization and Lecture
Convener	Nanomeet-2010	26-27, March 2010	Centre for Nanoscience and Technology	Organization and Lecture
Coordinator	International Workshop on Advances in Nanoscience and Tech.	28-30th Oct. 2009	Anna University Chennai	Organization and Lecture

Position	Programme	Duration	Institution	Responsibility
Convener	Nanomeet-2009 Industry Meet on Nanoscience and Technology	29th Nov., 2008.	Anna University Chennai	Organization and Lecture
Director-in-Charge	Centre for International Affairs	19.8.05 to 18.8.2008	Anna University Chennai.	Overseas Collaboration
Coordinator	Seminar on Energy Materials & Systems	10-11, Jan., 2008	Anna University Chennai	Organization and Lecture
Coordinator	Awareness Programme on Nanoscience and Technology	19-20, September 2007	Anna University Chennai	Organization and Lecture
Chairman	Japan-India Workshop on Optronic Materials and Devices	22-23, March 2007	NIMS, Japan.	Organization and Lecture
Coordinator	International Workshop on Nano Science and Technology	23-28, January 2006.	Anna University	Organization and Lecture
Coordinator	International Workshop on Crystal Growth & Applications of Advanced Materials	9-13, January 2006.	Crystal Growth Centre Anna University	Organization and Lecture
Convener	Indo-Japan Workshop on Crystal Growth of Advanced Materials	7-10, Dec. 2004	Crystal Growth Centre Anna University	Organization and Lecture
Co-Coordinator	UGC-Refresher Course on Crystal Growth	17th Nov.-7th Dec., 2004	Crystal Growth Centre Anna University	Organization and Lecture
Co-Director	International Workshop on Crystal Growth of Technologically Important Materials	24-28, Feb.2004	Crystal Growth Centre Anna University	Organization and Lecture
Coordinator	Memorandum of Understanding between Anna University and NIMS, Japan.	2002- Till Date	Anna University & NIMS, Japan.	Collaborative Research and Exchange Progamme
Coordinator	Visitor's Program under Inter-University Scheme.	1995-99 & 2003-05	Crystal Growth Centre Anna University	Lectures and Demonstration

Other Academic Credentials.

Number of Publications in International/National Journals : **330**

Papers presented in International/National conferences : **521**

Invited Lectures in International/National Conferences : **157**

No. of Ph.D. research scholars Guided : **31**

No. of Students currently working for their Ph.D. : **12**

International Research Recognition:

Research Citation: **3253.** *h*-Index: **33 (www.scopus.com)**.
Research Citation: **4849**. *h*-Index: **37 (Google Scholar)**

Research Scholars completed their Ph.D. under the guidance of Dr. R. Jayavel

Sl.No	Name of the Scholar	Title of thesis	Year
1.	Dr. G. Arunmozhi	An investigation on the nucleation , growth and characterization of semi-organic LAP and TGSP family crystals	1999
2.	Dr. S. Aravazhi	Investigation on the nucleation, growth and characterization of pure and doped triglycine sulfate crystal	1999
3.	Dr. R. Varatharajan	Investigation on the growth and characterization of pure and doped $BaCaTiO_3$ and $BaSrTiO_3$ single crystals	2000
4.	Dr. P. M. Ushasree	Studies on nucleation and growth of non linear optical ZTS family and BTCC crystals their characterization	2000
5.	Dr. N.V.Giridharan	Fabrication of barium strontium titanate, lead barium titanate and Bismuth titanate thin films by sol-gel technique and their characterization	2001
6.	Dr.R. Mohankumar	Studies on nucleation kinetics, growth and characterization of nonlinear optical and ferroelectric single crystals	2002
7.	Dr. S. Venkataraj	Investigations on the structural and optical properties of NbO_x, ZrO_x and $ZrO_{1-x}N_x$ thin films prepared by reactive dc magnetron sputtering process	2002
8.	Dr. E. Srinivasan	Studies on growth and characterisation of 1222 Type high temperature superconducting single crystals and synthesis aspects of Sr_2GdRuO_6	2004
9.	Dr.S. Uthayakumar	Investigations on the growth aspects of Bi-2212 and Ru-1212 textured crystals and fabrication of Bi-2201 and LSMO thin films	2004
10.	Dr.S.Madeswaran	Investigations on the growth aspects and property studies of Co and Rh doped $Ba(Sr)TiO_3$ and $Pb[(Zn,Nb)Ti]O_3$ ferroelectric single crystals	2005
11.	Dr. R. Sankar	Synthesis, Growth and Characterisation of Non-linear Optical Single crystals of organometallic Thiourea, Thiosemicarbazide and Glycine compunds.	2008
12.	Dr. D. Kalaiselvi	Growth and Characterization of Amino Acid based Nonlinear Optical Single Crystals of Organic and Semiorganic compounds.	2008
13.	Dr. D. Rajesh	Investigations on the Growth Aspects and Optical Properties of Cesium Triborate Single Crystals for UV generation	2008
14.	Dr.S.V.Rajasekaran	Investigations on Growth and Characterisation of Pure and Nb doped 0.58Pb[Sc1/2Nb1/2]O3-0.42PbTiO3 Ferroelectric Single Crystals	2008
15.	Dr. M.Subramanian	Investigations on pure and doped TiO_2 and ZnO thin films and the effect of swift heavy ion Irradiation on Mn doped ZnO Thin Films	2008
16.	Dr. A. Bhaskaran	Studies on the growth aspects and characterization of thiocyanate and thiourea based metal-organic nonlinear optical single crystals	2009
17.	Dr. C. M. Raghavan	Studies on the Growth Aspects and Characterization of Nonlinear Optical Metal-Organic Bimetallic Thiocyanate based single crystals	2009

18.	Dr. M.Ramesh Babu	Investigations on Growth and Characterisation of La-Pb-MnO single crystals and Effect of Heavy Ion Irradiation on the Physical Properties	2009
19.	Dr. S.Vijayalakshmi	Investigations on ZnO:M(M=Al,Cd),SnO_2:Zn nd Zn_2SnO_4 Thin Films Deposited By Spray Pyrolysis Method	2009
20.	Dr. G. Mohankumar	Investigations on Pure and Doped ZnO Nanostructures for Spintronics and Nano Hybrid Systems for Photovoltaic Applications	2010
21.	Dr. P. Ilanchezhiyan	Investigations on the Preparation and characterization of Pure and Rare-earth Doped ZnO Nanorods and Thin films	2011
22.	Dr. P. Anandan	Studies on the growth aspects and characterization of some amino acids based semi-organic nonlinear optical single crystals	2011
23.	Dr. Krishna Chandar	Investigations on the Synthesis and Characterisation of some rare-earth oxides Nanostructures and Mesocrystals	2012
24.	Dr. R. Pradeep Kumar	Synthesis, Characterization and the Catalytic Activity of Basic Metal Oxide Functionalized Mesoporous Carbon Materials.	2013
25.	Dr. Karl Chinnu	Studies on the Synthesis and Characterization of and CdS Nanostructures and Bilayer Films for Fuel Cell Applications.	2013
26.	Dr. K. Satheesh	Thiourea Assisted Synthesis of RGO, Pure and transition Metal Ions Doped CdS/RGO Nanocomposites for Photocatalytic and Energy Applications.	2013
27.	Dr. A. Arivarasan	Synthesis and Characterization of CdTe quantum Dots and CdTe:CdS Nanocomposites for Solar Cell Applications	2014
28.	Dr. R.Dhinesh Kumar	Investigation on the Synthesis and characterization of $YMnO_3$, $TbMnO_3$ Nanostructures and $LaFeO_3$ based Nanocomposite for Photocatalytic Applications	2014
29.	Dr. T. Saravanan	Synthesis and Characterization of graphene based Nanocomposites for Supercapacitor and Environmental Applications	2015
30.	Dr. R. Raja	Synthesis and Characterization of Carbon based Metal-oxide nanocomposites and layered material for supercapacitor and Hydrogen generation Applications	2015
31.	Dr. M. Shanmugam	Synthesis and Characterization of Graphene-Metal Oxide Nanocomposites for Photocatalytic Applications	2016

Membership in Professional bodies:

1. Indian Association for Crystal Growth
2. Electron Microscope Society of India
3. Materials Research Society of India
4. Indian Physics Association.
5. Indian Physical Society

Industry Collaboration:

1. Colour Stability in doped sapphire crystals for Synthetic Gem Applications.
   Industry: Indo-Swiss Synthetic Gem Manufacturing Co Ltd., Mettupalayam.
2. Metallic Nano paste for high reliability electronics.
   Industry: Global Applied Materials Inc., Bangalore.

Membership in Academic bodies:

1. Member – Board of Studies, Faculty of Technology, Anna University.
2. Member - Board of Studies in Nanoscience, Bharathiar University, Coimabatore.
3. Member - Board of Studies in Nanoscience and Technology, Alagappa University.
4. Member - Board of Studies in Biosensors and Bioeletronics, Alagappa University.
5. Member - Board of Studies in Physics, Periyar University, Salem.
6. Member - Board of Research Studies, Periyar University, Salem.
7. Member - Board of Studies in Nanoscience, M.S. University, Tirunelveli.
8. Member - Board of Studies, Sri Ramachandra University, Chennai.
9. Member – Board of Studies, Karunya University, Coimbatore.
10. Member- Board of Studies, Autonomous Colleges Affiliated to Anna University.
11. Member-Governing Council, School of Nano Technology, Pondichery University.

Awards & Recognition:

- Fellow of Academy of Sciences, Chennai.
- MRSI Prize for Best Paper Presentation in the MRSI-Meeting-2013.
- Visiting Professor, University of South Australia, Adelaide (June 2016).
- Visiting Professor, Queensland University, Australia (Oct. 2012).
- Active Researcher Award, Anna University (2012).
- Media Guild Award of Recognition 2012-2013.
- Visiting Researcher, National Institute for Materials Science, Japan (June – 2010)
- Visiting Professor, University of Goettingen, Germany under the European Union Academic Exchange Programme (Aug.-Oct. 2010).
- Visiting Researcher, National Institute for Materials Science, Japan (Sep.-2009)
- Honorary Guest Professor, Shizuoka University, Japan (2009-2012).
- Visiting Professor, Shizuoka University, Japan (December 2006-March 2007).
- Visiting Researcher, National Institute for Materials Science, Japan (June-2005)
- Best paper Award, “International Conference on Spectrophysics”, Chennai (2005).
- Japanese Government Award for Foreign Expert (May-June 2004)
- Special Researcher, National Institute for Materials Science, Japan (2001-2003)
- DAAD Sandwich Model Fellowship to visit Germany (2000)
- Science & Technology Agency (STA) Fellowship, Japan (1999-2001)
- Best paper Award, “Seminar on Materials and Characterization”, CECRI (1998)
- Certificate of Achievement by Leica Cambridge Ltd, UK for SEM Training (1995)
- Selected for Young Physicists Colloquium by the Indian Physical Society (1993)
- CSIR-Visiting Research Associate for research at NPL, New Delhi (1993)

Sponsored Research Projects Completed:

Sl. No	Title of the project	Position	Funding Agency	Duration	Grant (Lakh)
1.	Growth of large size Ba_{1-x} A_x(A=Ca, Sr) TiO_3 single crystals and their characterization	Co-Principal Investigator	DAE-BRNS	1995-1999	9.86
2.	Modernisation of flame fusion crystal growth system for the production of emerald and star Ruby	Principal Investigator	AICTE	1996-1999	10.00
3.	Growth of Germanium Single Crystals for Window Applications	Co-Investigator	ISRO	1996-1999	10.20
4.	Upgradation of Existing facilities for the Growth of Semiorganic Crystals for NLO applications.	Principal Investigator	AICTE	1998-2000	10.00
5.	Growth of bulk single crystals of high temperature semiconductors and their characterization.	Principal Investigator	DST	1998-2001	12.40
6.	State Initiated National Facility for Semiconductor based Nanomaterials.	Co-Investigator	TN Govt.	2005-2006	50.00
7.	Heavy ion Irradiation Effects on Colossal Magneto Resistance (CMR) Single Crystals.	Principal Investigator	IUAC	2006-2009	4.04
8.	Growth and Characterization of Bimetallic Thiocyanate Crystals for Frequency Conversion Devices	Principal Investigator	CSIR	2006-2009	10.16
9.	Semiconductor Nanostructures.	Co-Investigator	DST	2006-2009	616.24
10	Synthesis and Characterization of Carbon Nanotubes using Mesoporous MCM-41 molecular sieves-its Application as Memory Devices	Co-Investigator	DST	2006-2010	30.66
11.	Development of piezoelectric single crystals of PZN-PT for Acoustic Transducer and Sensor Applications	Principal Investigator	DRDO	2009-2012	10.00
12.	M.Tech. Programme on Nanoscience and Technology	Principal Investigator	DST	2008-2014	530.00
13	Single crystal growth of Sodium Potassium Niobate for Transducer Applications	Principal Investigator	UGC	2012-2015	14.00

Ongoing Sponsored Research Projects

Sl. No	Title of the project	Position	Funding Agency	Duration	Grant (Lakh)
1.	M.Tech. Programme on Nanoscience and Technology	Principal Investigator	DST	2015-2020	486.00

Overseas Visits

Country	Period	Place and purpose of visit
U.K.	May 1995	SEM training at Cambridge and visit to Cambridge University and Birmingham University.
U.S.A.	Dec.1995	MRS Meeting at Boston and visit to Pennsylvania State University and Argonne National Laboratory, Illinois.
JAPAN	July 1998	10th International workshop on superconductivity at Okinawa and visit to several laboratories/Institutions.
JAPAN	Aug.1999-Mar.-2003	Research at National Institute for Materials Science, Tsukuba Science City, Ibaraki.
GERMANY	May 2000	Visit to RWTH, Aachen and Institute for Crystal Growth, Berlin under DAAD-Sandwich Model Fellowship
U.S.A.	March 2001	American Physical Society meeting at Seattle and visit to Argonne National Laboratory, Illinois.
FRANCE	June 2002	European Materials Research Society (E-MRS)-Spring Meeting, Strasbourg.
S. KOREA	Aug. 2002	Second Asian Conference on Crystal Growth and Crystal Technology (CGCT-2), Hanyang University, Seoul.
JAPAN	May 2004	Exchange visits under the MoU between National Institute for Materials Science (NIMS) and Anna University.
JAPAN	June 2005	Exchange visits under the MoU between National Institute for Materials Science (NIMS) and Anna University.
SINGAPORE	September 2005	Visit to Nangyang Technological University and National University of Singapore for Research Discussion.
CHINA	October 2005	Third Asian Conference on Crystal Growth and Crystal Technology, Beijing.
AUSTRALIA	April 2006	Visit to The University of Western Australia and University of Adelaide to establish collaborative research programmes.
CHINA	May 2006	Visit to Nanjing University and Wuhan University for signing MoU for research collaboration.
JAPAN	September 2006	International Student Seminar on Materials and Prospects for Nanotechnology, Nagoya Institute of Technology.
NORWAY	November 2006	Visit to Norwegian Geotechnical Institute and NANSEN Environmental and Remote Sensing Centre for signing MoU for research collaboration
HOLLAND	November 2006	Visit to University of Amsterdam for signing MoU for research collaboration
GERMANY	November 2006	Visit to University of Luneburg for signing MoU for research collaboration
ITALY	November 2006	Visit to Ploitechnic di Torino, University of Torino and University of Pisa for signing MoU for research collaboration
JAPAN	December 2006 to March 2007	Visiting Professor at Shizuoka University, Hamamatsu and to Organize the Japan-India Workshop at National Institute for Materials Science, Tsukuba.
U.S.A.	23rd Sep.-4th Oct. 07	Visit to various Universities and Institutions for establishing collaborative research programs.
S. KOREA	8th-15th Oct. 2007	Visit to various Universities/Institutions to establish collaborative research.
JAPAN	22nd Sep. -2nd Oct. 2009	Visit to National Institute for Materials Science, Tsukuba for collaborative research.
JAPAN	21st June-2nd July 2010.	Visit to National Institute for Materials Science, Tsukuba for collaborative research.
GERMANY	23 Sep.-22 Oct.2010	Visiting Professor at the University of Goettingen under the European Union Academic Exchange Programme.

SWEDEN	25-28th Sep. 2010	Visit to Royal Institute of Technology, Stockohlm for collaborative research.
U.S.A.	13-17th Oct. 2010	Visit to New Jersey Institute of Technology and Steven's Institute of Technology for research collaboration.
JAPAN	2-12th Dec. 2010	Visit to National Institute for Materials Science, Tsukuba for collaborative research.
AUSTRALIA	15-26th Oct. 2012	Visiting Professor at the Australian Institute of Bio-Engineering and Nanotechnology, University of Queensland.
CHINA	9-14th Dec. 2012	Visit to Changchun Institute of Applied Chemistry to attend the 3rd International Symposium on Advanced Materials.
U.A.E.	10-12th Apr. 2013	To attend the Senate Meeting at the Middle East University, RAK, U.A.E.
KENYA	16-19th July 2013.	University of Nairobi for research collaboration and industry visit to develop rainbow roses using nano injection technology
JAPAN	25th Nov.-6th Dec.13	Guest Researcher at the National Institute of Materials Science, Tsukuba.
JAPAN	17-20th Feb.2014	Inter-Academia Asia Conference on Academic Cooperation organized by the Shizhuoka University, Japan.
SOUTH KOREA	27th March. - 5th Apr. 2014	5th International Workshop on New and Renewable Energy organized by the Kyungpook National University, Daegu.
SAUDI ARABIA	15-19th Nov. 2014	Visiting Professor at King Saud University, Riyadh.
JAPAN	1-31st Dec.2014	Exchange Researcher at the Shizuoka University under the Asia-Bridge Academic Exchange Programme
AUSTRALIA	15-30th June 2016	International Conference on Emerging Advanced Materials for Energy Storage applications at University of South Australia.
CHINA	16-19th August 2016.	4th International Symposium on Utilization of Rare earth Resources & 7th International Symposium on Functional Materials, Changchun Institute of Applied Chemistry.
NEW ZEALAND	30th. Oct.-4th Nov.2016	20th International Conference on Ion Beam modification of Materials, Geosciences Centre, Wellington, New Zealand.

Books/Proceedings Authored

Advanced Materials for Optoelectronics-(2005)- **Eds. R. Jayavel & K. Kitamura** *Proceedings of Indo-Japan Workshop on Crystal Growth and Applications of Advanced Materials for Optoelectronics,* Vijay Nichole In prints P.Ltd. Chennai.

Patents

1. "**A Process for the Production of water based nanocoolant using single walled carbon nanotubes functionalized with C1-site aminated D-glucose**" Indian Patent Filed with Dr. K.A. Padmanabhan, Dr. P. Gautam **(2008)** Patent Appln.no:2831/CHE/2008 dated 18.11.2008.

LIST OF PUBLICATIONS IN INTERNATIONAL/NATIONAL JOURNALS:

1 P.S. Kumar, **R. Jayavel,** P. Murugakoothan, C.R.V. Rao, C. Subramanian and P. Ramasamy, 'Growth of YBCO and NBCO single crystals', (1990), *Modern Phys. Lett. B,* Vol.4, 1289.

2 **R. Jayavel,** P. Murugakoothan, C.R.V. Rao, C. Subramanian, P. Ramasamy, B.V. Kumarasamy and A.V. Narlikar, 'Superconductivity and morphology studies of $Bi_2Sr_2Ca_1Cu_2O_8$ single crystals grown from stoichiometric and nonstoichiometric melts', (1991), *Bull. Mater. Sci.,* Vol.14, 1343.

3 **R. Jayavel,** P. Murugakoothan, C.R.V. Rao, P.S. Kumar, C. Subramanian and P. Ramasamy, 'Growth and morphology studies on $La_{2-x}Sr_xCuO_4$ single crystals', (1991), *Mater. Res. Bull.,* Vol.26, 945.

4 **R. Jayavel,** P. Murugakoothan, C.R.V. Rao, C. Subramanian, P. Ramasamy, A. Chakravarti, R. Ranganathan and A.K. Roy Chaudhuri, 'Preparation and characterisation of BiSrCaCuO through glassy route', (1991), *Solid State Commun*., Vol.79, 421.

5 P. Murugakoothan, **R. Jayavel,** C.R.V. Rao, C. Subramanian and P. Ramasamy, 'Growth and characterisation of $Bi_2Sr_2Ca_1Cu_{2-x}Ni_xO_y$ single crystals', (1991), *Modern Phys. Lett.B,* Vol.5,1989.

6 C.R.V. Rao, P. Murugakoothan, **R. Jayavel,** C. Subramanian and P.Ramasamy, 'Growth, Characterisation and Superconductivity studies on $CaLaBaCu_3O_{7-\delta}$ single crystals', (1992), *J. Mater. Sci. Lett.,* Vol.11, 145.

7 **R. Jayavel,** P.Murugakoothan C.R.V.Rao, C.Subramanian and P. Ramasamy, 'Crystal Growth of High Temperature Superconductors', (1992), *Ind. J. Pure & Appl. Phys.,* Vol.30, 502.

8 P. Murugakoothan, **R. Jayavel,** C.R.V. Rao, C. Subramanian and P. Ramasamy, 'Textured growth and orientation dependence of hardness measurements on superconducting $Bi_2Sr_2CaCu_2O_y$', (1992), *J. Mater. Sci. Lett.,* Vol.11, 1650.

9 P. Murugakoothan, **R. Jayavel,** C.R.V. Rao, C. Subramanian and P. Ramasamy, 'Growth and Characterisation of $Bi_2Sr_2CaCu_2O_y$ by the Floating Zone Method', (1992), *Mater.Chem. Phys.,* Vol.31, 281.

10 **A.** Thamizhavel, **R. Jayavel,** D. Arivuoli, C. Subramanian and P. Ramasamy, 'Growth of superconducting $Bi_2Sr_2CaCu_2O_8$ whiskers by splat quenching technique', (1992), *Ind. J. Cryog*., Vol.17, 27.

11 **R. Jayavel,** A.Thamizhavel, P.Murugakoothan, C.Subramanian and P. Ramasamy, 'Growth, Twin and Domain structure studies of superconducting $Bi_2Sr_2Ca_{1-x}Y_xCuO_8$ crystals', (1993), *Physica C,* Vol.215, 429.

12 **R. Jayavel,** C. Sekar, P. Murugakoothan, C.R.V. Rao, C. Subramanian and P. Ramasamy, 'Growth of Large size single crystals and whiskers of superconducting $Bi_2Sr_2CaCuO_8$ by step-cooling method', (1993), *J. Crystal Growth,* Vol.131, 105.

13 C.R.V. Rao, P. Murugakoothan, **R. Jayavel,** C. Subramanian and P. Ramasamy, 'Growth of $CaLnBaCu_3O_{7-\delta}$ (Ln=La, Pr, & Nd) Single crystals by Flux technique', (1993), *Supercond. Sci. & Technol.* Vol.6, 443.

14 **R. Jayavel**, P. Murugakoothan, C.R.V.Rao, C. Subramanian and P. Ramasamy, 'Growth of Superconducting $Bi_2Sr_2CaCu_2Oy$ single crystals using K_2CO_3 Flux', (1993), *Supercond. Sci. & Technol.,* Vol.6, 349.

15 P. Murugakoothan, **R. Jayavel,** C.R.V. Rao, C. Subramanian and P. Ramasamy, 'Growth and characterisation of Bulk textured $Bi_2Sr_2Ca_{1-x}Y_xCu_2O_8$ by Float zone technique', (1994), *Supercond. Sci. and Technol.*, Vol.7, 367.

16 **R. Jayavel,** A. Thamizhavel, P. Murugakoothan, C.R.V. Rao, C. Subramanian and P. Ramasamy, "Growth of Large size Twin Free $YBa_2Cu_3O_{7-\delta}$ single crystals by a temperature gradient technique", (1994), *J. Crystal Growth,* Vol. 137, 273.

17 P. Murugakoothan, **R. Jayavel** and C. Subramanian, 'Synthesis and characterization of bulk textured phases in the Bi(Pb)-Sr-Ca-Cu-O system', (1995), *Cryst. Res. Technol.,* Vol.30, 587.

18 S. Ariponnammal, **R. Jayavel** and S. Natarajan, 'High pressure electrical resistivity study on orthorhombic $SnTe_{1-x}Se_x$', (1996), *Solid State Commn.* Vol.100, 341.

19 G. Arunmozhi, R. Mohan Kumar, **R. Jayavel,** and C. Subramanian, 'Growth and Surface studies on Triglycine sulpho-phosphate (TGSP) single crystals', (1997), *Mater. Sci. and Engg.*B, Vol. 49, 216.

20 G. Arunmozhi, **R. Jayavel,** C. Subramanian, 'Ferroelectric studies on amino acids mixed TGSP crystals', (1997), *Mater. Lett.* Vol. 33, 251.

21 S. Aravazhi, **R. Jayavel** and C. Subramanian, 'Growth and characterization of L-alanine and L-valine doped triglycine sulphate crystals', (1997), *Mater. Res. Bull.* Vol.32, 1503.

22 S. Aravazhi, **R. Jayavel** and C. Subramanian, 'Growth and characterization of pure, Benzophenone and Urea doped TGS crystals', (1997), *Ferroelectrics,* Vol. 200, 279.

23 S. Aravazhi, **R. Jayavel** and C. Subramanian, 'Growth and stability of pure and amino doped TGS crystals', (1997), *Mater. Chem. & Phys.* Vol.50, 233.

24 G. Arunmozhi, **R. Jayavel** and C. Subramanian, 'Growth and characterization of amino acids mixed TGSP single crystals', (1997), *Mater. Chem.& Phys.* Vol. 50, 57.

25 G.Arunmozhi, **R.Jayavel** and C.Subramanian, 'Experimental determination of metastable zone width, induction period and interfacial energy of LAP family crystals', (1997), *J. Crystal Growth,* Vol.178, 387.

26 A. Thamizhavel, D. Prabhakaran, **R. Jayavel**, and C. Subramanian, 'Growth and charcterization of superconducting $Bi_2Sr_2Ca_{1-x}Ce_xCu_2O_{8+\delta}$ single crystals', (1997), *Physica C,* Vol. 275, 279.

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