








Department of Electronics

Kalpataru First Grade Science College, Tiptur

The Department of Electronics was established in 1986 with a new combination Physics, Mathematics and **Electronics** (PME) for B.Sc. and Physics, Chemistry, Mathematics and **Electronics** for Pre-University classes. First batch consisted of 27 students in B.Sc. (PME) and 40 students in PUC. But the very next year the strength increased to 54 and 60 in B.Sc. and PUC respectively. Now the combination PME has an intake capacity of 80.

The Department is headed by:

Sl. No.	NAME	PERIOD	PHOTO
1	Prof. Chudappa C	01-06-1986 to 14-06-1987	
2	Prof. Shadaksharappa MB	15-06-1987 to 30-09-1995	
3	Prof. Rajkumar	01-10-1995 to 31-12-1997	
4	Prof. Chitharanjan Rai	01-01-1998 to 31-03-2005	
5	Prof. Vinod Phadke	01-04-2005 to 31-03-2008	

6	Dr. Chitharanjan Rai	01-04-2008 to 31-05-2021	
7	Prof. Vinod Phadke	01-06-2021 to Present	

The department has well equipped laboratory, easily one of the best in Tumkur and Bangalore Universities. There are two spacious laboratories and a separate Staff room. Other facilities available are: Departmental library with around 130 books, 20 computers with internet connection and wi-fi for the use of students, overhead and LCD projectors, Smart Board, visualizer/ document camera and other teaching aids.

Our alumni are well placed and most of them have excelled in their chosen field. Many of them have continued their studies and are placed in reputed companies within India and abroad such as TCS, Wipro, ISRO, HP, Oracle, SAP, L & T, vernacular newspapers etc.

STRENGTHS:

- a) Well Equipped laboratories
- b) Departmental Library with latest volumes
- c) Computer lab with Internet facility
- d) Wi-Fi enabled labs and Staff Room
- e) ICT enabled mini seminar hall/laboratory
- f) Uninterrupted power supply for laboratories
- g) CC cameras installed for advanced security
- h) Recruitments through Campus selections

WEAKNESSES:

- a) Inadequate space for Research activities
- b) General indifference towards the basic science by the students

OPPORTUNITIES:

- a) Research activity can be taken up in larger scale
- b) Industry academia interactions can be hosted
- c) Campus selections can be conducted in the campus
- d) Post Graduate courses can be introduced
- e) Campus selections can be conducted for large number of companies

CHALLENGES:

- a) To keep pace with advanced electronics environment through modernization of syllabi
- b) Providing placements after successful completion of the course.
- c) To overcome the disruption of academic activities due to Covid-19 Pandemic.

FUTURE PLANS:

- a) Encourage student-teacher support programs
- b) Course materials are made available in departmental portal or in college website.
- c) Introduction of post graduate course in networking/Electronics with industry collaboration

The faculty members:

	<p>Dr. Chitharanjan Rai , M.Sc., Ph.D.</p> <p>Email: raichitharanjan@gmail.com</p> <p>Mobile : 7892596608, 9448858182</p>	<p>Associate Professor and Principal, KFGSC, Tiptur</p>
	<p>Prof. Vinod Phadke M.Sc., M.Phil.</p> <p>Email: vinod.phadke@gmail.com</p> <p>Mobile: 9964792012</p>	<p>Associate Professor and Head of the Department</p>

PAPERS PUBLISHED BY THE FACULTY MEMBERS:**1. Dr. Chitharanjan Rai , M.Sc., Ph.D.**

Dr. Chitharanjan Rai has published 9 research papers in international refereed journals, presented 18 research papers in 12 conferences/ seminars/ workshops, attended 41 conferences/seminars/workshops in different parts of India. He has 84 citations for his papers.


Welcome to Kalpataru First Grade S...Inbox (3,474) - raichitharanjan@...WEBSITE - Google DriveDr. CHITHARANJAN RAI - Goog...

←→↺https://scholar.google.co.in/citations?user=xjv6f1QAAAAJ&hl=en

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Dr. CHITHARANJAN RAI

ASSOCIATE PROFESSOR OF ELECTRONICS, Kalpataru First Grade Science College, Tiptur
No verified email

FOLLOW

TITLE

CITED BY

YEAR

☐

A phase-matchable nonlinear optical material N-(3-nitrophenyl) phthalimide: Synthesis, crystal growth and characterization
HJ Ravindra, MRS Kumar, C Rai, SM Dharmaparakash
Journal of crystal growth 294 (2), 318-322

26

2006

☐

Crystal growth and dielectric, mechanical, electrical and ferroelectric characterization of n-bromo succinimide doped triglycine sulphate crystals
C Rai, K Byrappa, SM Dharmaparakash
Physica B: Condensed Matter 406 (17), 3308-3312

12

2011

☐

Improved ferroelectric and pyroelectric parameters in iminodiacetic acid doped TGS crystal
C Rai, K Sreenivas, SM Dharmaparakash
Journal of crystal growth 312 (2), 273-275

12

2010

☐

Iminodiacetic acid doped ferroelectric triglycine sulphate crystal: Crystal growth and characterization
C Rai, BN Moolya, SM Dharmaparakash
Physica B: Condensed Matter 406 (1), 1-7

11

2011

☐

Growth of 4-(dimethylamino) benzaldehyde doped triglycine sulphate single crystals and its characterization
C Rai, K Sreenivas, SM Dharmaparakash
Physica B: Condensed Matter 404 (21), 3886-3889

11

2009

☐

Sodium tris (glycinium) bis (hexafluorosilicate) glycine trisolvate
MB Narayana, C Rai, SM Dharmaparakash, WTA Harrison
Acta Crystallographica Section C: Crystal Structure Communications 63 (7 ...

8

2007

☐

8 MeV electron irradiation effect on the dielectric and optical properties of iminodiacetic acid doped ferroelectric triglycine sulphate crystals
C Rai, G Sanjeev, SM Dharmaparakash
Nuclear Instruments and Methods in Physics Research Section B: Beam ...

4

2010

☐

Studies on optical and electrical properties of pure and doped triglycine sulphate crystals
C Rai
Mangalore

2021

☐

MS35, P36
SM Dharmaparakash, C Rai
Acta Cryst 67, C468-C469

2011

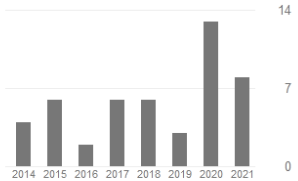
☐

Synthesis, Growth and XRD Studies of New Nonlinear Optical L-tyrosine Hydrochloride Single Crystals
K Ravindraswami, J Gowda, C Rai, BN Moolya
Space 21 (P21), P21

Articles 1-10SHOW MORE

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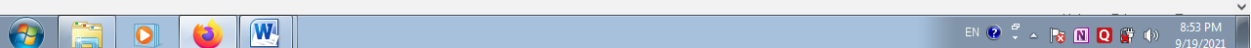
	All	Since 2016
Citations	84	38
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i10-index	5	2



Year	Citations
2014	2
2015	4
2016	1
2017	4
2018	4
2019	2
2020	14
2021	7

Co-authorsEDIT

No co-authors



ARTICLES PUBLISHED IN INTERNATIONAL REFREED JOURNALS

S.No.	Title of the paper	Name of the Journal with page number	Journal Impact Factor as on 01-10-2021	Authors	ISSN Number
1	Growth of 4-(dimethylamino) benzaldehyde doped Triglycine Sulphate single crystals and its Characterisation	<i>Physica B</i> 404 (2009) 3886–3889	2.436	<u>Chitharanjan Rai</u> , K.Sreenivas S M Dharmaprakash	ISSN: 0921-4526
2	Improved ferroelectric and pyroelectric parameters in iminodiacetic acid doped TGS crystal	<i>Journal of Crystal Growth</i> , 312 (2010) 273–275	1.797	<u>Chitharanjan Rai</u> , K.Sreenivas S M Dharmaprakash	ISSN: 0022-0248
3	8 MeV electron irradiation effect on the dielectric and optical properties of iminodiacetic acid doped ferroelectric triglycine sulphate crystals	<i>Nuclear Instruments and Methods in Physics Research B</i> 268 (2010) 2510	1.377	<u>Chitharanjan Rai</u> , Ganesh Sanjeev S.M. Dharmaprakash	ISSN: 0168-583X
4	Iminodiacetic acid doped ferroelectric triglycine sulphate crystal: Crystal growth and characterization	<i>Physica B</i> 406 (2011) 1 - 7	2.436	<u>Chitharanjan Rai</u> , Narayana Moolya B. S.M. Dharmaprakash	ISSN: 0921-4526
5	Crystal Growth and dielectric, mechanical, electrical and ferroelectric characterization of n-bromo succinimide doped triglycine sulphate crystals	<i>Physica B</i> 406 (2011) 3308 - 3312	2.436	<u>Chitharanjan Rai</u> , K. Byrappa S.M. Dharmaprakash	ISSN: 0921-4526
6	A phase-matchable nonlinear optical material N-(3-nitrophenyl) phthalimide: Synthesis, crystal growth and characterization	<i>Journal of Crystal Growth</i> 294 (2006) 318–322	1.797	H.J. Ravindra, M.R. Suresh Kumar, <u>Chitharanjan Rai</u> S.M. Dharmaprakash	ISSN: 0022-0248
7	Sodium tris(glycinium) bis(hexafluorosilicate) glycine trisolvate	<i>Acta Cryst. Section C</i> (2007). C63, m312-m314	1.172	M. B. Narayana, <u>Chitharanjan Rai</u> , S. M. Dharmaprakash W. T. A. Harrison	ISSN: 0108-2701

PAPERS PRESENTED AT STATE / NATIONAL / INTERNATIONAL SEMINARS / WORKSHOPS / CONFERENCES

S.No.	TOPIC	DATE		PLACE
		FROM	TO	
1	National seminar on Modern Trends in Material science Title of the Paper: Growth and characterization of 4 -(dimethylamino) benzaldehyde doped Tri Glycine Sulphate single crystal	29-08-2005	30-08-2005	Department of Physics, University of Calicut
2	50 th DAE Solid state Physics Symposium-2005 Title of the Paper: Optical and Electrical Properties of p-Dimethylamino Benzaldehyde Doped TGS Single Crystal	05-12-2005	09-12-2005	Bhabha atomic Research Centre, Mumbai
3	Eighth International Conference on Optoelectronics, Fiber Optics and Photonics : PHOTONICS 2006 Title of the Paper: Effect of high energy electron irradiation on electrical and optical properties of nonlinear optical DGHCl single crystals	13-12-2006	16-12-2006	University of Hyderabad, Hyderabad, India
4	Eighth International Conference on Optoelectronics, Fiber Optics and Photonics : PHOTONICS 2006 Title of the Paper: Crystal Growth and Characterization of nonlinear Optical Glycine Zinc Sulfate	13-12-2006	16-12-2006	University of Hyderabad, Hyderabad, India
5	Eighth International Conference on Optoelectronics, Fiber Optics and Photonics : PHOTONICS 2006 Title of the Paper: "A novel nonlinear optical material 2-{[(3-nitrophenyl) amino]-carbonyl} benzoic acid: Synthesis, Crystal Growth and characterization"	13-12-2006	16-12-2006	University of Hyderabad, Hyderabad, India
6	51 st DAE Solid state Physics Symposium-2006 Title of the Paper: Effect of High-Energy Electron Irradiation on Optical Parameters of Succinic Acid Doped Triglycine Sulphate Single Crystals	26-12-2006	30-12-2006	Department of Physics and Electronics, Barkatullah University, Bhopal

7	51 st DAE Solid state Physics Symposium-2006 Title of the Paper: Effect of high energy electron irradiation on electrical and optical properties of diglycine hydrobromide single crystals	26-12-2006	30-12-2006	Department of Physics and Electronics, Barkatullah University, Bhopal
8	51 st DAE Solid state Physics Symposium-2006 Title of the Paper: Third order nonlinear Optical Properties of noval chalcone derivative 1-phenyl -3-(3,4,5-trimethoxyphenyl)prop-2-en-1-one	26-12-2006	30-12-2006	Department of Physics and Electronics, Barkatullah University, Bhopal
9	National conference on current trends in materials Science (CTMS-07) Title of the Paper: Growth and characterization of N-bromo succinimide doped Tri Glycine Sulphate single crystal.	25-03-2007	27-03-2007	Department of Physics, Christian College, Chengannur, Kerala
10	National conference on current trends in materials Science (CTMS-07) Title of the Paper: "Crystal Growth and characterization of Nonlinear Optical Glycine Lithium Sulphate single crystals.	25-03-2007	27-03-2007	Department of Physics, Christian College, Chengannur, Kerala
11	National conference on current trends in materials Science (CTMS-07) Title of the Paper: "Third Order Nonlinear Optical properties of Benzaldeneacetophenone.	25-03-2007	27-03-2007	Department of Physics, Christian College, Chengannur, Kerala
12	52 nd DAE Solid state Physics Symposium-2007 Title of the Paper: Dielectric and Hardness studies of n-bromo succinimide Doped Triglycine Sulphate Single Crystals	27-12-2007	31-12-2007	University of Mysore, Mysore
13	2 nd DAE-BRNS symposium on "Atomic, Molecular and Optical physics (SAMOP-2011)" Title of the Paper: 8MeV Electron Radiation Effects on Dielectric and Pyroelectric properties of 4 - (dimethylamino) benzaldehyde doped Triglycine Sulphate Crystals	22-02-2011	25-02-2011	Department of Physics, Karnatak University, Dharwad – 580003
14	XVI National Seminar on Crystal Growth (XVI-NSCG-2012) Title of the Paper: n-bromo succinimide doped triglycine sulphate crystal: Growth, Dielectric, Pyroelectric and Ferroelectric studies	19-01-2012	21-01-2012	Department of Physics, Aditanar College of Arts and Science, Tiruchendur, Tamilnadu

15	National Conference on Condensed Matter Physics and Applications Title of the Paper: Electron Irradiation Effect on the Dielectric and Pyroelectric properties of Succinic acid Doped Ferroelectric Triglycine Sulphate crystals	27-12-2012	28-12-2012	Department of Physics, Manipal Institute of Technology, Manipal University, Manipal
16	National Conference on Current Trends in Scientific Research for Engineering Applications (NCSEA-2014) Title of the Paper: 4-(dimethylamino) Benzaldehyde Doped Triglycine Sulphate Single Crystals: Ferroelectric and Piezoelectric Studies	17-07-2014	18-07-2014	St. Joseph Engineering College, Vamanjoor, Mangalore
17	National Conference on Title of the Paper: Electron irradiation effect on the dielectric and pyro electric properties of n-bromo succinimide doped ferroelectric	29-01-16	30-01-16	Sri. BASAVESHWARA COLLEGE, BANGALORE
18	International Conference on Smart materials and Technologies for Emerging Technologies (IC-SMTEE) Title of the Paper: Modification of dielectric and pyro electric properties of succinic acid doped ferroelectric triglycine sulphate crystals using electron irradiation	19-02-2016	20-02-16	Sahyadri College of Engineering and Management, Adyar, Mangalore

2. Prof. Vinod Phadke M.Sc., M.Phil.

Paper presented at National/international seminars/conferences 2016-17

1. **Paper Presented: International level** conference: ICASE 2007 (International conference in Advanced Science and Engineering) at Bangkok, Thailand. 17th January 2017
2. **Paper presented: National level** (Poster) : 30-08-2017 at APS College of Engineering, Bangalore (Recent Advances in Materials" ISBN No. 978-1-5136-2495-2
3. **Paper presented: National level** (Poster) : 30-11-2017 at Tumkur University by dept. of Studies and Research in Physics, Tumkur University - :Trends in Advanced Materials and their applications" ISBN no. 978-93-82694-44-1

Following are the articles published by Prof. Vinod Phadke in Kannada in various Kannada dailies and magazines.

Sl.No	Date of Publication	Name of newspaper/magazine	Subject	Title of the Article
1	8-01-2012	Vijay Karnataka (daily)	Biography of Nikola Tesla	ಕರಂಟ್ ಅಫೇರ್
2	12-02-2012	Vijay Karnataka (daily)	Environmental tragedy of Nauru Island	ನುಚ್ಚು ನೌರು
3	15-04-2012	Vijay Karnataka (daily)	Titanic tragedy	ಟೈಟಾನಿಕ್ ದುರಂತಕ್ಕೆ ೧೦೦
4	16-12-2012	Vijay Karnataka (daily)	About the F.M. inventor- Edwin H. Armstrong	ಎಫ್. ಎಂ. ಜನಕನ ಹಾಡು ಪಾಡು
5	22-11-2013	Sudha (weekly)	Possibility of life on 'Titan', the satellite of Saturn	ಟೈಟನ್ ನಲ್ಲಿ ಜೀವಿಗಳಿವೆಯೇ?
6	09-05-2013	Sudha (weekly)	About the day of Pi (π)	ದ ಡೇ ಆಫ್ ಪೈ
7	29-12-2013	Vijay Karnataka (daily)	About the life of Alan Turing	ಕಂಪ್ಯೂಟರ್ ಪಿತಾಮಹನ ದುರಂತ ಕಥೆ
8	13-04-2014	Vijay Karnataka (daily)	About the book I am reading	ನಾನು ಓದುತ್ತಿರುವ ಹೊತ್ತಿಗೆ
9	22-06-2014	Vijay Karnataka (daily)	Biography of Samuel Colt	ರಿವಾಲ್ವರ್ ರಾಜ "ಕೋಲ್ಟ್"
10	24-05-2015	Vijayavani (daily)	About Voyager-1	ಅನಂತತಾನಂತವಾಗಿ ಸಾಗುತ್ತಿಹನು ನಿತ್ಯ ಯೋಗಿ
11	28-06-2015	Vijayavani (daily)	About the "New Horizon" to Pluto	ನ್ಯೂ ಹೊರೈಜನ್, ಪ್ಲುಟೊ ದೆಡೆಗೆ ಹೊಸ ನೋಟ.
12	16-08-2015	Vijayavani (daily)	About the south Pole adventure of Ernest Shackleton	ಹಿಮಗಡ್ಡೆಯ ನಡುವೆ 21 ತಿಂಗಳು
13	24-09-2015	Sudha (weekly)	About a bird (Photo Article)	ನಮ್ಮ ಮನೆಯಂಗಳದಿ ಬೆಳೆದ ಪುಟ್ಟಿ.
14	28-09-2015	Vijayavani (daily)	About Elan Musk , the great inventor/entrepreneur	ವಿಭಿನ್ನ ಮಾರ್ಗಗಳ ಚಾಣಕ್ಷ.
15	03-01-2016	Vijayavani (daily)	About the LISA experiment	ಗುರುತ್ವ ಅಲೆಗಳ ಜಾಡನ್ನು ಹಿಡಿದು.....
16	April, 2017	Vishwavani (Yugadi special issue)	Travel experience	"ಆಲೀಸ್ ಇನ್ ಥಾಯಿ ಲ್ಯಾಂಡ್ "
17	19-1-2019	Vishwavani	Travel experience	ಚೌಮಹಲ್ಲಾ ಪ್ಯಾಲೆಸ್: ಹೈದರಾಬಾದ್ ನ ರತ್ನ ಕಿರೀಟ.

- Have authored two booklets:
 - 1) “ಡಾ. ಸ್ಟೀಫನ್ ಹಾಕಿಂಗ್ಸ್ “ based on the Life of **Dr. Stephen Hawking**” published by Chaitra Publication, Bangalore.
 - 2) “ಬ್ಯಾಟರಿ ಲೋಕ” A book on different types of batteries. Published by Chaitra Publication, Bangalore.
- Article published about ‘New Horizon- the journey to Pluto’ has been selected for the book that compiles best science articles of the year 2015. This book will be published by Kannada Sahitya Parishathu.

Students conducting analog experiments in lab 1



Students conducting Digital experiments in lab 2



Departmental Educational Tours



students participating in Funfair programme



Induction programme and Farewell function

