

Curriculum Vitae

Dr. Harshkant O. Jethva

Associate Professor

Crystal Growth Laboratory

Department of Physics

Saurashtra University

Rajkot - 360 005

Gujarat, INDIA

- (1) **Name** : Dr. Harshkant O. Jethva
- (2) **Date of Birth** : 03-07-1973
- (3) **Department** : Physics Department
Saurashtra University, Rajkot.
- (4) **Present Designation** : Associate Professor
- (5) **Official Address** : Department of Physics,
Saurashtra University, University Campus
University Road, Rajkot – 360005, Gujarat
- (6) **Educational Qualifications:** M. Sc., Ph. D.
- (7) **Teaching Experience** : (1) Lecturer, Physics Department
Maharaja Shree Mahendrasinhji Science
College, Morbi, Gujarat
From 19-09-1996 to 18-09-2002
- (2) Senior Lecturer, Physics Department
Maharaja Shree Mahendrasinhji Science
College, Morbi, Gujarat
From 19-09-1902 to 31-12-2005
- (3) Assistant Professor, Physics Department
Maharaja Shree Mahendrasinhji Science
College, Morbi, Gujarat
From 01-01-2006 to 18-09-2010
- (4) Associate Professor, Physics Department
Maharaja Shree Mahendrasinhji Science
College, Morbi, Gujarat
From 19-09-2010 to 08-08-2016
- (5) Associate Professor, Physics Department
Saurashtra University, Rajkot
From 09-08-2016 to continuous till date

Total Teaching Experience: 22 years

Publications :

➤ Book Publication :

- 8 Books of First Year of B Sc Programme of Semester 1 and 2 and Second Year of B Sc Programme of Semester 3 and 4 for subject Physics are published as a single author according to the syllabus of Saurashtra University, Rajkot, Gujarat under Choice Based Credit System (CBCS) during 2013-14 to 2016-17, published by Bharat Publication, Rajkot.

List of Publications

Sr. No.	Details of Publications
1	H O Jethva , M V Parsania, Growth and Characterization of Lead Tartrate Crystals, Asian Journal of Chemistry, 22(8), 6317-20, 2010
2	H C Mandavia, H O Jethva , R U Purohit, KVR Murthy, Thermoluminescence study of natural minerals used in ceramic tiles industries, Materials Science-An Indian Journal, 6(3), 167-69, 2010
3	H O Jethva , R R Hajiyani, Spectroscopic and thermal studies on Lead Tartrate Crystals, Materials Science-An Indian Journal, 7(2), 100-103, 2011
4	H O Jethva , R R Hajiyani, FT-IR & XRD Studies on Tris-Thiourea Strontium Chloride Single Crystals, Material Science Research India, 8(1), 201-204, 2011
5	H O Jethva , R R Hajiyani, Growth and Characterization of Tris-thiourea Strontium Chloride Single Crystals, Material Science-An Indian Journal, 7(5), 331-334, 2011
6	Poorvesh M. Vyas, Harshkant O. Jethva , Sudhir J. Joshi, Mihir J. Joshi, The roles of gel medium and gelling solution in the growth of the crystals: A case study of calcium levo-tartrate, Archives of Physics Research, 2013, 4 (6):9-15
7	H O Jethva , P M Vyas, K P Tank, M J Joshi, FTIR and thermal studies of gel grown lead-cadmium mixed levo tartrate crystals, Journal of Thermal Analysis and Calorimetry, 117(2), 589-94, 2014
8	H O Jethva , M H Jethva, To examine the effectiveness of Computer Assisted Instruction Program for teaching of rectifier in Physics, Research Matrix, International Multidisciplinary Journal of Applied Research, 12(1), 28-30, April 2014
9	H O Jethva , M H Jethva, To study the effect of Computer Assisted Instruction Program for teaching of filter circuits in Physics, Research Matrix, International Multidisciplinary Journal of Applied Research, 12(1), 82-84, July 2014
10	H O Jethva , Thermal study of gel grown cobalt levo-tartrate crystals, Materials Science-An Indian Journal, 349-352, 11(11), 2014
11	H O Jethva , R M Dabhi, M J Joshi, Structural, Spectroscopic, Magnetic and Thermal Studies of Gel-Grown Copper Levo-Tartrate and Copper Dextro-Tartrate Crystals, IOSR Journal of Applied Physics, 8(3), 33-42, 2016
12	B V Jogiya, H O Jethva , K P Tank, V R Raviya, M J Joshi, Impedance and modulus spectroscopic study of nano-hydroxyapatite, AIP Conf. Proc., 1728, 020227, 2016

13	Urvisha Lathiya, H O Jethva , Purvesh Vyas, Mihir Joshi, Powder XRD, TEM, FTIR, and Thermal Studies on Strontium Tartrate nano-particles, AIP Conf. Proc., 1837, 040015, 2017
14	J H Joshi, D K Kanchan, M J Joshi, H O Jethva , K D Parikh, Dielectric Relaxation, Complex Impedance and Modulus Spectroscopic Studies of Mix Phase Rod like Cobalt Sulfide Nanoparticles, Materials Research Bulletin, 63-73, 93, 2017
15	H O Jethva , K C Joseph, Bhoomika Jogiya, C K Chauhan, ADB Vaidya, M J Joshi, In vitro Growth Inhibition Study of Urinary Type Brushite Crystals in the Presence of Healthy Adult Urine and Tartaric acid, IOSR Journal of Pharmacy and Biological Sciences, 12(4), 47-53, 2017
16	A.P. Kochuparampil, J.H. Joshi, H.O. Jethva , M.J. Joshi, Impedance Spectroscopy of Sodium Sulphide Added ADP Crystals, Mechanics, Materials Science & Engineering, Vol 9, April 2017
17	D.D. Khunti, J.H. Joshi, H.O. Jethva , M.J. Joshi, K.D. Parikh, Structural, Spectroscopic, Thermal and SHG Efficiency Studies of L-Phenylalanine Doped KDP Crystals, Mechanics, Materials Science & Engineering, December 2017
18	H O Jethva , Gel Growth-A Brief Review, Mechanics, Materials Science & Engineering, Vol 9, April 2017
19	J.H. Joshi, H.O. Jethva , P.T. Bagda, K. Ashish Prasad, M.J. Joshi, Structural, Spectroscopic, Thermal studies of Pure and DL-Methionine Doped ADP Crystals, Mechanics, Materials Science & Engineering, Vol 9, April 2017
20	N.D. Pandya, J.H. Joshi, H.O. Jethva , M.J. Joshi, Structural, Spectroscopic and Thermal Studies of Potassium Di-Hydrogen Citrate Crystal, Mechanics, Materials Science & Engineering, Vol 9, May 2017
21	J H Joshi, K P Dixit, K D Parikh, H O Jethva , D K Kanchan, S Kalainathan, M J Joshi, Effect of Sr^{+2} on growth and properties of ammonium dihydrogen phosphate single crystal, Journal of Materials Science: Materials in Electronics, 29(7), 5837-52, 2018
22	S R Suthar, H O Jethva , M J Joshi, Vickers Micro-Hardness Studies of Mn^{++} And Cu^{++} Doped Calcium Levo-Tartrate Tetrahydrate Single Crystals, IOSR Journal of Applied Physics, 10(2), 05-12, 2018
23	J H Joshi, D K Kanchan, H O Jethva , M J Joshi, K D Parikh, Dielectric relaxation, protonic defect, conductivity mechanisms, complex impedance and modulus spectroscopic studies of pure and L-threonine-doped ammonium dihydrogen phosphate, Solid State Ionics, 1-22, 2018
24	Rakesh Hajiyani, Bhoomika Jogiya, Chetan Chauhan, Harshkant Jethva , Mihir Joshi, Growth and Characterization of Zinc doped Bis-thiourea Strontium Chloride, AIP Conf. Proc., 1942, 100003, 2018
25	A.P. Kochuparampil, J.H. Joshi, H.O. Jethva , M.J. Joshi, Growth and characterization of Ag^{+} doped Ammonium Pentaborate Single Crystals, International Journal of Scientific Research and Reviews, 7(1), 267-275, 2018
26	H. O. Jethva and M. J. Joshi, Impedance, Modulus and Spectroscopic analysis of gel-grown pure lead levo-tartrate crystals, Bulgarian Journal of Physics, 45, 275-284, 2018.
27	U. M. Lathiya, P. M. Vyas, H. O. Jethva and M. J. Joshi, Synthesis and Characterization of Iron Tartrate Nano Particles, Asian Journal of Chemistry, 30(12), 2754-2760, 2018.
28	J. H. Joshi, G. M. Joshi, M. J. Joshi, H. O. Jethva and K. D. Parikh, Raman,

	photoluminescence, and ac electrical studies of pure and L-serine doped ammonium dihydrogen phosphate single crystals: an understanding of defect chemistry in hydrogen bonding, New Journal of Chemistry, 42, 17227-17249, 2018.
29	A.P. Kochuparampil, J. H. Joshi, H. O. Jethva and M.J. Joshi, Modification in structural, functional, thermal, dielectric, impedance and nonlinear optical properties of ammonium pentaborate crystal by addition of di-sodium sulphide nanoparticles, Modern Physics Letters B (2019) (accepted)

Number of papers presented in National / International conferences / seminars: 34

M. Phil. Students awarded degree:

- Mr. Amit Bhojani (2018), Growth inhibition study of selected urinary stone crystal by potassium dihydrogen citrate (KDC).

Students working for Ph. D.:

- Mr. Nilesh H. Manani, Registration number – 17118, date 01/01/2017. Growth and characterization of magnesium, cobalt and other mixed levo tartrate crystals.
- Mr. Kirit Vadhel, Registration number – 18072, date 01/01/2018. Growth and characterization of pure and dopants modified some nonlinear optical crystals.
- Mr. Nikunj Pandya, Registration number – 18066, date 01/01/2018. Growth of crystals and their characterizations: The solution and Gel growth approach.
- Mr. Harshal Bhuvva, Registration number and date– under process. Growth and characterization of organic compound doped potassium dihydrogen phosphate crystals.
- Miss. Dirgha Mankad, Registration number and date– under process. Growth and characterization of some crystals of metal organic complexes.

Research Projects Completed:

“Growth and Characterization of the gel grown Lead Tartrate Crystals”

Funding : U. G. C. Minor Research Project

Ref Letter No. : File No: 47-1339/10(WRO), Dated: 20/09/2010.

Sanctioned Amount : Rs. 1,30,000.00

Organized Seminar :

- Coordinator of One Day State Level Seminar on Current Trends in Research in Physics and Industrial Applications arranged on 17/01/2010 at Department of Physics, Maharaja Shree Mahendrasinhji Science College, Morbi, Gujarat.
- Coordinator of One Day National Level Seminar on Recent Trends in Experimental Condensed Matter Physics (RTECMP-2017) arranged on 21/03/2017 at Department of Physics, Saurashtra University, Rajkot, Gujarat.

Involvement in Various Activities:

1. Coordinator of Ph D Course work Programme 2016, 2017, 2018
2. Coordinator of Departmental Research Committee (DRC) 2016, 2017, 2018
3. Coordinator of NET Exam coaching 2016, 2017, 2018
4. Member of Research Advisory Committee (RAC) 2017, 2018

Invited Lectures:

02 Invited Lectures are delivered in International Conference:

1. Crystal growth in gel-A brief review: In International Conference on Materials Processing and Applications, Organized by Centre For Crystal Growth, VIT, Vellore on 14-16 December 2016.
2. Impedance Spectroscopy-A Brief Review: In International Conference on Advances in Materials Science and Technology, Organized by Centre For Crystal Growth, VIT, Vellore on 09-11 October 2017.

The following Ph.D. thesis assessed for other Universities:

- (1) Investigation on the role of some transition metal dopants on structural, optical and electrical properties of Cu₂S thin films for solar cell applications
Mrs. A. Vasuhi (2017), Periyar E V R College (Autonomous), Affiliated to Bharathidasan University, Tiruchirappalli, Tamilnadu.
- (2) Investigation on Crystallization and Characterization of Pure and Some Amino Acids Doped Nickel Sulphate Crystals
T. BENILA (April 2018), Manonmaniam Sundarnar University, Tirunelveli 627 012

- (3) Growth and characterization of some organic and semiorganic based single crystals for nonlinear optical applications
M. Nageshwari (May 2018), Thiruvalluvar University, Vellore, Tamil Nadu
- (4) Structural and optical properties of nanocrystalline thin films by chemical bath deposition technique
Mrs. S. Rajathi (December 2017), PG and Research Department of Physics, Government Arts College, Ariyalur 621713, Affiliated to Bharathidasan University, Tiruchirappalli, Tamil Nadu.

The following are the invitations for the evaluation of the Ph D Thesis of other universities:

- (1) Molecular Interaction Studies in Binary and Ternary Organic Liquid Mixtures
Ms. R. Priscilla (2018), Manonmaniam Sundaranar University, Tirunelveli
- (2) **Growth and Characterization of TGS_xP_{1-x} single crystals**
V.S. Shalli (2018), Manonmaniam Sundaranar University, Tirunelveli
- (3) GROWTH AND CHARACTERIZATION OF L-CYSTINE AND L-GLUTAMIC ACID BASED SINGLE CRYSTALS FOR NONLINEAR OPTICAL APPLICATIONS
D. Manivannan (2018), Bharathidasan University, Tiruchirappalli, Tamilnadu.
- (4) GROWTH, CHARACTERIZATION AND NONLINEAR OPTICAL BEHAVIOUR OF POTASSIUM HYDROGEN PHTHALATE AND SOME MANDELIC ACID BASED CRYSTALS
Mr. K. Sivakumar (2018), Bharathidasan University, Tiruchirappalli
- (5) GROWTH AND CHARACTERIZATION OF SOME ORGANIC AND SEMIORGANIC NONLINEAR OPTICAL CRYSTALS
Mr. P. Prabu (2018), Bharathidasan University, Tiruchirappalli