

**M.S.P ARTS, SCIENCE &K.P.T COMMERCE COLLEGE MANORA
DIST.WASHIM**

DEPARTMENT OF PHYSICS

FACULTY PROFILE



Name : **Dr. Kishor Ashokrao Koparkar**
Designation : **Assistant Professor & HOD**
Department : **Physics**
Date of Joining : **25/01/2017**
Date of Retirement : **14/03/2046**
Teaching Experience :

Sr. No.	Experience	Teaching Level	Duration
1.	Teaching Experience	PG	Four Year (CHB)
2.		UG	One & Half Year (Permanent) and Two and Half Year (CHB)
3.		Engineering	One Year (Full time)
4.	Research Experience	Dept. of Physics	One year (Full time)

Date of Birth : **14th March 1986**
Email address : kakoparkar@gmail.com
Educational Qualification : **Ph.D., M.Sc. (Physics)**
Research Qualification : **Ph.D.**
Google Citation Link : <http://scholar.google.com/citations?hl=en&user=PTYvrIQAAAAJ>
Research gate link : https://www.researchgate.net/profile/Ka_Koparkar/publications

Ph.D

Title : *Step Towards Enhancement of Luminescence in Yttrium Based Phosphors*
Registered at : SGB Amravati University
Registered on : July 2013
Awarded on : August 2016

Achievements :

■ Google Citation

Citation indices	All	Since 2011
Citations	190	188
h-index	8	8
i10-index	6	6

■ Research Gate Citation

Articles	37 article in international journal and 2 articles in International Conference
Read	3042
Citations	154

- 27 papers published through Ph. D. and after Ph. D. research work.
- 3 Book chapters published with ISBN.
- 11 papers published in International Conference.
- 17 papers published in International Conference.
- Guiding students for completion of their M.Sc. Projects (9 project completed and 2 are ongoing)
- 2 Best poster presentation awards in national conferences.

Technical Knowledge

- ◆ Installing and Handling Technical instruments like XRD, FTIR SEM, TGA-DTA and Thermoluminescence meter and Photo spectrometer.
- ◆ Fabrication of high temperature programmable furnaces.

Papers in International Journals

1	<u>Comparative study of nano-sized Al₂O₃ powder synthesized by sol-gel (citric and stearic acid) and aldo-keto gel method</u> S. K. Omanwar, S. R. Jaiswal, K. A. Koparkar, V. B. Bhatkar Optik 158 (2018) 1248-1254 [<i>Impact Factor: 0.742</i>] Elsevier Publication.
2	<u>Visible quantum cutting in green-emitting BaF₂: Gd³⁺, Tb³⁺ phosphor: An approach toward mercury-free lamps</u> S. K. Omanwar, S. R. Jaiswal, N. S. Sawala, K. A. Koparkar, P. A. Nagpure, V. B. Bhatkar St. Petersburg Polytechnical University Journal: Physics and Mathematics 3 (2017) 218-224 Elsevier Publication.
3	<u>Synthesis and energy transfer from Dy³⁺ to Sm³⁺ in Halosulphate phosphor for solid state lighting</u>

	S. T. Taide, K. A. Koparkar , N. B. Ingle, S. K. Omanwar Optik 144 (2017) 416-421 [<i>Impact Factor: 0.742</i>] Elsevier Publication.
4	Ultra-violet to visible quantum cutting in $\text{YPO}_4:\text{Gd}^{3+},\text{Tb}^{3+}$ phosphor via down conversion S. R. Jaiswal, N. S. Sawala, K. A. Koparkar , V. B. Bhatkar, S. K. Omanwar Optik 144 (2017) 416-421 [<i>Impact Factor: 0.742</i>] Elsevier Publication.
5	Optical properties of one dimensional hybrid PVA/YVO₄: Eu³⁺ nanofibers synthesized by Electrospinning V. S. Hingwe, K. A. Koparkar , N. S. Bajaj, S. K. Omanwar Optik 140 (2017) 211-215 [<i>Impact Factor: 0.742</i>] Elsevier Publication.
6	Synthesis and photoluminescence properties of near-UV pumped novel Sm^{3+} doped $\beta\text{-LiAlSiO}_4$ phosphor for red-orange LEDs U.B. Gokhe, K.A. Koparkar , S.K. Omanwar Journal of Alloys and Compounds 689 (2016) 992-997 [<i>Impact Factor: 3.014</i>] Elsevier Publication.
7	Synthesis and TL/OSL properties of a novel high-sensitive blue-emitting $\text{LiSrPO}_4:\text{Eu}^{2+}$ phosphor for radiation dosimetry C. B. Palan, K. A. Koparkar , N. S. Bajaj, A. Soni, S. K. Omanwar Appl. Phys. A 122 (2016) 703-708. [<i>Impact Factor : 1.444</i>] Springer Publication
8	Synthesis and TL/OSL properties of $\text{CaSiO}_3:\text{Ce}$ biomaterial C. B. Palan, K. A. Koparkar , N. S. Bajaj, S. K. Omanwar Material letters 175 (2016) 288-290. [<i>Impact Factor : 1.444</i>] Elsevier Publication
9	Slow evaporation method and enhancement in photoluminescence properties of $\text{YPO}_4:\text{Eu}^{3+}$ co-doped with Bi^{3+} ions K.A. Koparkar , S.K. Omanwar Bulletin of Materials Science 39 (2016) 1127-1132 [<i>Impact Factor : 1.017</i>] Springer Publication
10	Synthesis and fluorescence properties of $\text{Ca}_2\text{SiO}_4:\text{Dy}^{3+}$ phosphor for solid state lighting application U. B. Gokhe, K. A. Koparkar , S. K. Omanwar Journal of Materials Science: Materials in Electronics 27 (2016) 1-5 [<i>Impact Factor : 1.569</i>] Springer Publication
11	Red and Blue Emitting Borate Phosphor excited by Near Ultraviolet Light N.S. Bajaj, K.A. Koparkar , P.A. Nagpure, S.K. Omanwar Journal of Optics 17 (2016) 1-4 Springer Publication
12	Near infrared spectral downshifting in $\text{Sr}_{(3-x)}(\text{VO}_4)_2: x\text{Nd}^{3+}$ phosphor N. S. Sawala, K.A. Koparkar , S.K. Omanwar Bulletin of Materials Science (Accepted) [<i>Impact Factor : 1.017</i>] Springer Publication
13	A novel high sensitivity $\text{KCaPO}_4:\text{Ce}^{3+}$ phosphor for radiation dosimetry

	<p>C. B. Palan, K. A. Koparkar, N. S. Bajaj, A. Soni & S. K. Omanwar Research on Chemical Intermediates 42 (2016) 1-13 [<i>Impact Factor : 1.221</i>] Springer Publication</p>
14	<p>TL/OSL Properties of Green Emitting LiMgPO₄:Tb³⁺, B (LMPTB) Phosphor for Radiation Dosimetry C. B. Palan, K. A. Koparkar, N. S. Bajaj, A. Soni & S. K. Omanwar Journal of Inorganic and Organometallic Polymers and Materials 26 (2016) 1-10 [<i>Impact Factor : 1.160</i>] Springer Publication</p>
15	<p>Highly luminescence optimization with color purity (orange to red) by increasing Gd³⁺ ions in Eu³⁺ doped phosphate synthesized by slow evaporation method. K.A. Koparkar, S.K. Omanwar <i>Journal of luminescence</i> 175 (2016) 176-181 [<i>Impact Factor : 2.719</i>] Elsevier Publication</p>
16	<p>Preliminary Results on Effect of Boron Co-Doping on CW-OSL and TL Properties of LiMgPO₄: Tb, B N.S. Bajaj, C.B. Palan, K.A. Koparkar, M.S. Kulkarni, S.K. Omanwar <i>Journal of luminescence</i> 175 (2016) 9–15 [<i>Impact Factor : 2.719</i>] Elsevier Publication</p>
17	<p>Synthesis and thermoluminescence/optically stimulated luminescence properties of CaB₄O₇:Ce phosphor C. B. Palan , K. A. Koparkar, N. S. Bajaj, A. Soni, S. K. Omanwar <i>Journal of Materials Science: Materials in Electronics</i> 27 (2016) 5600-5606 [<i>Impact Factor : 1.569</i>] Springer Publication</p>
18	<p>Near-infrared Downconversion in Y_(1-x)Yb_xVO₃ for sensitization of c-Si solar cells N.S. Sawala, K.A. Koparkar, N.S. Bajaj, S.K. Omanwar <i>Optik</i> 127 (2016) 4375–4378 [<i>Impact Factor : 0.677</i>] Elsevier Publication</p>
19	<p>Aldo-keto synthesis effect on Eu³⁺ fluorescence in YBO₃ compared with solid state diffusion. K.A. Koparkar, N.S. Bajaj, S.K. Omanwar <i>Journal of Rare Earths</i>, 33 (2015) 486-490. [<i>Impact Factor : 1.342</i>] Elsevier Publication</p>
20	<p>Effect of partially replacement of Gd³⁺ ions on fluorescence properties of YBO₃:Eu³⁺ phosphor synthesized via precipitation method. K.A. Koparkar, N.S. Bajaj, S.K. Omanwar <i>Optical Materials</i>, 39, (2015) 74–80 [<i>Impact Factor : 2.075</i>] Elsevier Publication</p>
21	<p>Synthesis and effect of partially replacement of Y³⁺ to La³⁺-ions on their photoluminescence properties of (Y_(1-x)La_x)PO₄:Eu³⁺ phosphor. K.A. Koparkar, N.S. Bajaj, S.K. Omanwar <i>Electronic Materials Letters</i>, 11 (2015) 303-307 [<i>Impact Factor : 3.977</i>] Springer Publication</p>
22	<p>Effect of calcination temperature on structural and optical properties of europium (III) doped SrO–Y₂O₃ phosphor. K.A. Koparkar, N.S. Bajaj, S.K. Omanwar</p>

	<p>Journal of Material Science: Materials in Electronics 26 (2015) 2748–2753 [<i>Impact Factor : 1.966</i>] Springer Publication</p>
23	<p><u>Combustion synthesis and photoluminescence properties of Eu³⁺ activated Y₂Zr₂O₇ nano phosphor.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar Indian Journal of Physics, 89 (2015) 295-298. [<i>Impact Factor : 1.785</i>] Springer Publication</p>
24	<p><u>Combustion Synthesis and Photoluminescence Properties of Novel Eu³⁺ Ion Doped Magnesium Yttrium Borate Phosphor.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar Romanian Journal of Physics, 60 (2015) [<i>Impact Factor : 0.745</i>] Romanian Academy Publication</p>
25	<p><u>Synthesis and Luminescence Properties of Eu³⁺-Doped SrY₂O₄ Phosphor.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar International Journal of Luminescence and Applications (ISSN: 2277-6362) 5 (2015) 134-136.</p>
26	<p><u>Downconversion in Tb³⁺, Yb³⁺ Co-Doped ZrO₂.</u> N.S. Sawala, K.A. Koparkar, S.K. Omanwar International Journal of Luminescence and Applications (ISSN: 2277-6362) 5 (2015) 125-127.</p>
27	<p><u>Synthesis and Down-Conversion Studies on Y₂O₃:Yb³⁺, Bi³⁺ Phosphor.</u> A.O. Chauhan, K.A. Koparkar, N.S. Bajaj, S.K. Omanwar International Journal of Luminescence and Applications (ISSN: 2277-6362) 5 (2015) 100-102.</p>
28	<p><u>Effect of Eu³⁺ doping on fluorescence properties of novel phosphor Li₂Y₂B₂O₇</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar Optoelectronics And Advanced Materials – Rapid Communications, 9 (2015) 915 – 918. [<i>Impact Factor : 0.449</i>] INOE.</p>
29	<p><u>A Potential Candidate for Lamp Phosphor: Eu³⁺ Activated K₂Y₂B₂O₇.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar Advances in Optical Technologies, 2014 (2014), Article ID 706459, 5 pages. Hindawi Publishing Corporation</p>
30	<p><u>Synthesis and Characterization of MgY₂B₂O₇:Eu(III) phosphors.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar International Journal of Chem Tech Research, 6 (2014) 3287-3290. Sphinx Knowledge House</p>
31	<p><u>Luminescence in Eu³⁺ Activated Li₂Y₂B₂O₇ Phosphor.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar International Journal of Chemistry 3 (2014) 42 – 46. ISSN 2249-2119</p>

32	<u>Plasma Polymerized Thin Film Sensor: Synthesis and Application.</u> K.A. Koparkar. Sensors & Transducers-(2012) Vol. 143, No. 8, 2012, pp. 10-31, Impact Factor: 209.33 (e-IF)
33	Plasma Polymerization: Novel Approach of Synthesis of Conjugated Polymers. K. A. Koaprkar, S.A.Waghuley. Multilogic in Science-(2012) ISSN: 2277-7601, pp 105-109.

Book Chapters

34	<u>Recent Advances and Opportunities in TLD Materials: A Review.</u> S.K. Omanwar, K.A. Koparkar, H. S. Virk Defect and Diffusion Forum, 347 (2013) 75-110. Trans Tech Publications
35	<u>Photoluminescence in a Novel Aldo-Keto Synthesized YPO₄:Eu³⁺ Nanophosphor.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar <i>Solid State Phenomena, 222 (2014) 179-185. Trans Tech Publications</i>
36	<u>Exploring Synthesis Techniques for Yttrium Based Phosphors.</u> K.A. Koparkar, N.S. Bajaj, S.K. Omanwar Defect and Diffusion Forum, 361 (2015) 95-119. Trans Tech Publications

Papers in International Conferences

37	<u>Near-infrared photoluminescence in La_{0.98}AlO₃:0.02Ln³⁺ (Ln= Nd/Yb) for sensitization of c-Si solar cells</u> N.S. Sawala, K.A. Koparkar, N.S. Bajaj, S.K. Omanwar International Conference on Condensed matter and Applied Physics (ICC 2015), 1728 (2016) 020250-6.
38	<u>Synthesis and photoluminescence properties of Pb²⁺ doped inorganic borate phosphor NaSr₄(BO₃)₃</u> A.O. Chauhan, K.A. Koparkar, N.S. Bajaj, S.K. Omanwar International Conference on Condensed matter and Applied Physics (ICC 2015), 1728 (2016) 020470-4.
39	Synthesis and photoluminescence properties of YVO₄:Eu³⁺ and YVO₄:Eu³⁺@SiO₂ for biological application. K.A. Koparkar, S. K. Omanwar International conference on Environment and Energy (2014) 51 ISBN: 978-93-81212-96-7.
40	Near-infrared quantum cutting in YVO₄:Yb³⁺ N.S. Sawala, K.A. Koparkar, S. K. Omanwar International conference on Environment and Energy (2014) 48 ISBN: 978-93-81212-96-7.

41	Y₂O₃:Eu³⁺ and YVO₄:Eu³⁺ Synthesised By Reactions in Molten Salts. N. S. Bajaj, K.A. Koparkar , N. B. Ingle, S. K. Omanwar International Conference on Materials and Charecterization Techniques (ICMAT-2014) March 10-12, 2014, VIT University, Vellore (TN) PG18 Proceedings page-347
42	Studies on Optical Properties of MAIO₂: Tb³⁺ [M=Li and Na] N. S. Bajaj, A. O. Chauhan, K.A. Koparkar , S. K. Omanwar International Conference on Materials and Characterization Techniques (ICMAT-2014) March 10-12, 2014, VIT University, Vellore (TN), OG17 Proceedings page-286
43	<u>Sensing Response of Polyaniline/Polvvinyl Acetate Composite Film to Carbon Dioxide Gas.</u> K.A.Koparkar , K.R.Nemade, R.S.Palaspagar, , S.S.Kosalge, G.T.Bhalerao, G.G.Muley, B.H.Pawar, S.A.Waghuley, Bionano Frontier (Special Issue), pp.27-29 (2010)
44	<u>Activation Energy of Polythiophene/Vanadium Pentoxide Composites Material.</u> R.S.Palaspagar, K.R.Nemade, K.A.Koparkar , S.S.Kosalge, G.T.Bhalerao, G.G.Muley, B.H.Pawar, S.A.Waghuley, Bionano Frontier (Special Issue), pp.122-125 (2010)
45	<u>Sensitivity and Dynamic Response of ZnO Thin Film to Carbon Dioxide Gas.</u> K.R.Nemade, K.A.Koparkar , R.S.Palaspagar, S.S.Kosalge, G.T.Bhalerao, G.G.Muley, B.H.Pawar, S.A.Waghuley, Bionano Frontier (Special Issue), pp.133-135 (2010)
46	<u>Cerium Dioxide as a carbon dioxide gas senser.</u> S.S.Kosalge, G.T.Bhalerao, R.S.Palaspagar, K.A.Koparkar , K.R.Nemade, G.G.Muley, B.H.Pawar, S.A.Waghuley, Bionano Frontier (Special Issue), pp.88-89 (2010)
47	D.C Conductivity of PTh/V₂O₅ Composite. K.R.Nemade, R.S.Palaspagar, K.A.Koparkar , S.S.Kosalge, G.T.Bhalerao, G.G.Muley, B.H.Pawar, S.A.Waghuley, Bionano Frontier (Special Issue), pp.133-135 (2010)

Papers in National Conferences

48	Preliminary UV dosimetic investigation on Y₂O₃:Eu³⁺ synthesis via novel aldo-keto gel synthesis. K. A. Koaprkar , N. S. Bajaj, S. K. Omanwar. Proceeding on NSAMA-(2015) ISSN-978-81-930894-1-5. Page No. 200-203.
49	UVB emitting phosphor: LaPO₄:Ce³⁺ synthesis and characterizations. A.O. Chauhan, N. S. Bajaj, K. A. Koaprkar , S. K. Omanwar. Proceeding on NSAMA-(2015) ISSN-978-81-930894-1-5. Page No. 27-29.
50	Spectral downshifting of visible light to near-infrared emission through energy transfer from Ce³⁺ to Nd³⁺ in YAG. N.S. Sawala, N. S. Bajaj, K. A. Koaprkar , S. K. Omanwar. Proceeding on NSAMA-(2015) ISSN-978-81-930894-1-5. Page No. 96-99.
51	Eu³⁺ Activated YCaBO₄ for lamp phosphor application.

	K. A. Koaprkar , C. B. Palan, N. S. Bajaj, S. K. Omanwar. Proceeding on NCMSTF-(2014) ISSN-2249-3352. Page No. 44-46.
52	Combustion synthesis and characterization of Yttrium Tungstate Oxide. K. A. Koaprkar , C. B. Palan, N. S. Bajaj, S. K. Omanwar. Proceeding on NCAM-(2014) ISBN-9789381432709, Page No. 248-249.
53	Aldo-keto gel synthesis of $YAl_3(BO_3)_4:Sm^{3+}$ phosphor for solid state lighting. K. A. Koaprkar , C. B. Palan, N. S. Bajaj, S. K. Omanwar. Proceeding on NCNSAM-(2014) ISBN-978-93-82962-51-9, Page No. 99-100.
54	Combustion synthesized blue emitting phosphor $Ca_3WO_6:Eu^{2+}$. C. B. Palan, K. A. Koaprkar , N. S. Bajaj, S. K. Omanwar. Proceeding on NCMSTF-(2014) ISSN-2249-3352. Page No. 69-70.
55	Synthesis and Luminescence studies of Terbium (III) Activated $LiBaPO_4$. C. B. Palan, K. A. Koaprkar , N. S. Bajaj, S. K. Omanwar. Proceeding on NCAM-(2014) ISBN-9789381432709, Page No. 205-206.
56	Combustion synthesis and characterization of $KBaPO_4:Tb^{3+}$. C. B. Palan, K. A. Koaprkar , N. S. Bajaj, S. K. Omanwar. Proceeding on NCRTMPA-(2014) ISSN-978-81-929160-2-6, Page No. 76-78.
57	Energy transfer in YPO_4 from Sm^{3+} to Eu^{3+}. N.S. Sawala, K. A. Koaprkar , S. K. Omanwar. Proceeding on NCNSAM-(2014) ISBN-978-93-82962-51-9, Page No. 11-12.
58	Synthesis and Characterization of $Y_2O_3:Eu/Tb$ Via Co-precipitation Method. S. P. Bhagat, A. C. Gaykwad, K. A. Koaprkar , S. K. Omanwar. Proceeding on NCRTMPA-(2014) ISSN-978-81-929160-2-6, Page No. 100-103.
59	Synthesis and Photoluminescence Property of $YBO_3:Tb^{3+}$ by Re-crystallization Method. S. P. Bhagat, R. J. Wade, K. A. Koaprkar , S. K. Omanwar. Proceeding on NCRTMPA-(2014) ISSN-978-81-929160-2-6, pp 107-109.
60	Synthesis and Photoluminescence Property of Ce^{3+} Doped BaB_2O_4 Phosphor. S. P. Bhagat, K. D. Potdar, K. A. Koaprkar , A. B. Gawande, S. K. Omanwar. Proceeding on NCRTMPA-(2014) ISSN-978-81-929160-2-6, Page No. 104-106.
61	Synthesis of $Y_2(MoO_4)_3$ by Using Re-crystallization Synthesis Technique. S. P. Bhagat, N. M. Deshpande, K. A. Koaprkar , S. K. Omanwar. Proceeding on NCRTMPA-(2014) ISSN-978-81-929160-2-6, Page No. 216-218.
62	Synthesis and Characterization of $MgO:Tb^{3+}$. C. B. Palan, K. A. Koaprkar , N. S. Bajaj, S. K. Omanwar. Proceeding on NCSANM-(2013) ISSN 2229-4554. Page No. 211-212.
63	Synthesis of Conducting Polymer Thin Films Using Glow Discharge Method. K. A. Koaprkar , S.A.Waghuley.

	Proceeding on NCLAM-(2012) ISBN-978-81-922256-6-1, pp. 82-84.
64	Carbon Dioxide Gas Sensitive Electrical Conduction In Polyaniline/WO_3 Composite Films. K. A. Koaprkar, S.A.Waghuley. Proceeding on NCLAM-(2012) ISBN-978-81-922256-6-1, pp. 88-90.

Subject taught:

- ➡ After Ending of classes (Or any time in college), student come and asked the difficulty.
- ➡ Group discussion of Magic behind the physics.
- ➡ Students are asked to deliver the seminars on different topics from the syllabus.

Teaching methods applied:

- ü Board and Chalk,
- ü Lectures, LCD Projector, and
- ü For Ppt. Presentation internet facilities are used.