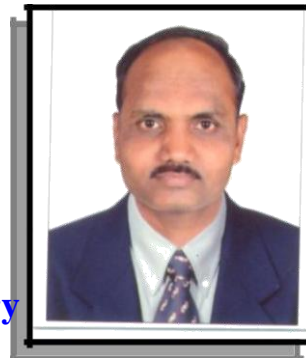


CV of Prof. K. M. Garadkar



1. Personal Details

Name : **Dr. K. M. Garadkar**
Professor of Physical Chemistry
Department of Chemistry,
Shivaji University,
Kolhapur- 416004
M. S. India
Emai :kmg_chem@unishivaji.ac.in
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07767978687

Designation : **Professor of Physical Chemistry**
Date of Birth : 01-06-1970
Email Address : kmg_chem@unishivaji.ac.in
garadkar@gmail.com

Permanent Address : C-11 Madhabhavi Park, Rajendra Nagar Kolhapur 416004 .

2. Academic Details:

Qualification : M.Sc. Ph.D.
Specialization : Physical Chemistry
Position: **Professor of Physical Chemistry**

3. Research Specialization: Preparations of Nanomaterials,
Applications in Photocatalysis

4. Teaching Experience (PG) : 22 Years

5. Research Guidance:
PG Programmes Students

M. Sc. Projects Students : 150

M. Phil Awarded Students :02

Ph. D. Awarded Students : 10

Ph. D Working : 06

Details of Research

6.Publications: National: 10

International: 96

**Conference
7.Attended: National: 10**

International: 15

Invited Talk: 10

Co-ordinator, Industrial Chemistry, Shivaji University, Kolhapur

From: March, 2018 to date

Award: INSA Fellowship 2018 to visit China

Research Area: My group is working in the field of nanomaterials. We have developed very simple method to prepare TiO₂, ZnO, CeO₂, ZrO₂, SnO₂, Fe₂O₃, SiO₂ etc and their composite with Carbon and g-C₃N₃. These materials are used in photocatalysis. We have also prepared Silver, Gold, Platinum(Ag, Au, Pt) Nanoparticles with different shapes by plant extract and their applications in Cancer Cells detection and destruction.

Research Projects

Sr. No	Title of the Project	Funding Agency	Grant Sanctioned/ Amount Mobilized Rs.	Status
1	Preparation & characterization of mixed metal oxide nanoparticles loaded with noble metals and its photocatalytic Applications	DST New Delhi	19,90000	Completed (2012 to 2015)
2	Nanocomposite Photocatalysts for environmental Cleaning Applications	BRNS BARC	23,00000	Completed (2013 to 2016)
Sr. No	Title of the Project	Funding Agency	Amonunt in Rs	Status
3	Rare earth doped mixed metal oxide nanocomposite and its applications for the pesticide degradation	UGC New Delhi	10,08886/ -	Completed (2009-2012)

4	Synthesis and characterization of some nanocrystalline mixed metal oxides of 3d transition metals loaded with doped TiO ₂ and Nb ₂ O ₅ with reference to their photocatalytic performance.	DAE- BRNS	22,86,900/-	Completed (2009-2011)
4	Preparation, characterization of doped CdSe thin films and their use in optoelectronic device	UGC New Delhi	80000/-	Completed (2003 to 2005)
5	Synthesis of Platinum and Platinum bimetallic nanoparticles as novel catalyst in fuel cell and biosensor	University of Pune, Pune	300000/-	Completed (2006-2008)

Name of the Book : Handbook of Sol-Gel Science and Technology: Processing, Characterization and Applications

Publisher : Springer

Editors: Klein, Lisa, Aparicio, Mario, Jitianu, Andrei (Eds.) 2017

ISBN 978-3-319-32100-4

Name of the Chapter : Microwave Assisted Sol-Gel Method for the Preparation of Metal Oxide Nanoparticles

Authors : K. M. Garadkar^{a*} A. N. Kadam^b, Jinsub Park^b

Membership/ Other Charges:

- 1) Life Member, Indian Society for Radiation and Photochemistry ,
- 2) Member, Editorial Board, IJACT
- 3) Member, American Chemical Society (USA) Member No: 31356203
- 4) Member, Royal Society of Chemistry (RSC)
- 5) Journal of Applied Physical Science International
International Knowledge Press
- 6) Journal of Chemistry & Applied Biochemistry

11. List of Publications :

Total Number of Research Publications: 106 (Upto Sept.5th 2018)

h index by Google Scholar : 31

Citations : 2550

I₁₀ : 31

h index by Scopus : 26

Research Gate Score : 41

Total Reads : 30,000

BEST FIVE PAPERS

Sr. No	Title of Paper	Name of the Journal	Authors	Page No	Vol. No	Year	Impact Factor
1	Magnetite–Silica–Gold Nanocomposite: One-Pot Single-Step Synthesis and Its Application for Solvent-Free Oxidation of Benzyl Alcohol	The Journal of Physical Chemistry	M Kokate, S Dapurkar, K M Garadkar, A Gole	14214-14223	119	2015	8.262

2	Enhanced photocatalytic degradation of methyl red and thymol blue using titania–alumina–zinc ferrite nanocomposite	Applied Catalysis B: Environmental (Elsevier)	P P. Hankare R.P. Patil A.V. Jadhav ^a , K.M. Garadkar , R. Sasikala	333-339	107	2011	8.328
3	zinc-oxide-silica-silver nanocomposite: Unique one-pot synthesis and enhanced catalytic and anti-bacterial performance	Journal of Colloid and Interface Science	Mangesh Kokate Kalyanrao Garadkar , Anand Gole	249–260	483	2016	3.782

List of Publications

2018

1). Evolution of Waste Iron Rust into Magnetically Separable g-C₃N₄-Fe₂O₃ Photocatalyst: An Efficient and Economical Waste Management Approach
Babar, Santosh; Gavade, Nana; Shinde, Harish; Mahajan, Prasad; Lee, Ki Hwan; Mane, Narayan; Deshmukh, Ashish.; Garadkar, Kalyanrao; Bhuse, Vijaykumar
ACS Applied Nano Materials (2018),.

2018

2). Biosynthesis of ZrO₂ nanoparticles from Ficus benghalensis leaf extract for photocatalytic activity
Shinde, H. M.; Bhosale, T. T.; Gavade, N. L.; Babar, S. B.; Kamble, R. J.; Shirke, B. S.; Garadkar, K. M.
Journal of Materials Science: Materials in Electronics (2018), 29(16), 14055-14064.

2018

3. Synthesis, characterization and electromagnetic studies of novel Mn

- substituted MgCo₂O₄ synthesized by sol-gel method
Mali, A. V.; Delekar, S. D.; Garadkar, K. M.; Hankare, P. P. 2018
Materials Focus (2017), 6(6), 705-710,
4. Biosynthesis of SnO₂ nanoparticles by aqueous leaf extract of
Calotropis gigantea for photocatalytic applications
Bhosale, T. T.; Shinde, H. M.; Gavade, N. L.; Babar, S. B.; Gawade,
V. V.; Sabale, S. R.; Kamble, R. J.; Shirke, B. S.; Garadkar, K. M.
Journal of Materials Science: Materials in Electronics (2018), 29(8),
6826-6834.
- 5.) Fabrication of M@Cu_xO/ZnO (M= Ag, Au) Heterostructured 2017
Nanocomposite with Enhanced Photocatalytic Performance under
Sunlight
Gavade, Nana L.; Babar, Santosh B.; Kadam, Abhijit N.; Gophane,
Anna D.; Garadkar, Kalyanrao M.
Industrial & Engineering Chemistry Research (2017), 56(49),
14489-14501.
6. Microwave synthesis of In-doped TiO₂ nanoparticles for
photocatalytic application
Suwarnkar, M. B.; Khade, G. V.; Babar, S. B.; Garadkar, K. M.
Journal of Materials Science: Materials in Electronics (2017),
28(22), 17140-17147.
7. Effect of annealing temperature on properties of molybdenum
disulfide thin films
Kite, S. V.; Chate, P. A.; Garadkar, K. M.; Sathe, D. J.
Journal of Materials Science: Materials in Electronics (2017),
28(21), 16148-16154.
- 8). Green synthesis of ZnO nanoparticles by using Calotropis procera
leaves for the photodegradation of methyl orange
Gawade, V. V.; Gavade, N. L.; Shinde, H. M.; Babar, S. B.;
Kadam, A. N.; Garadkar, K. M.
Journal of Materials Science: Materials in Electronics (2017),
28(18), 14033-14039. |
- 9). Erratum to: Enhanced photocatalytic activity of europium doped
TiO₂ under sunlight for the degradation of methyl orange [Erratum
to document cited in CA167:109593]
Khade, G. V.; Gavade, N. L.; Suwarnkar, M. B.; Dhanavade, M. J.;
Sonawane, K. D.; Garadkar, K. M.
Journal of Materials Science: Materials in Electronics (2017),
28(15), 11012.
10. Enhanced photocatalytic activity of europium doped TiO₂ under
sunlight for the degradation of methyl orange
Khade, G. V.; Gavade, N. L.; Suwarnkar, M. B.; Dhanavade, M. J.;

Sonawane, K. D.; Garadkar, K. M.
Journal of Materials Science: Materials in Electronics (2017),
28(15), 11002-11011

11. Morphological evolution of Cu doped ZnO for enhancement of photocatalytic activity

AN Kadam, TG Kim, DS Shin, K.M. Garadkar, J Park
Journal of Alloys and Compounds 710, 102-113

12) Effect of leavening agent on structural and photocatalytic properties of ZnO nanorods

SB Babar, NL Gavade, J Park, K.M. Garadkar, VM Bhuse
Journal of Materials Science: Materials in Electronics 28 (12), 8372

2017

13) Enhanced photocatalytic activity of europium doped TiO₂ under sunlight for the degradation of methyl orange

G. V khade, N. L. Gawade K. M. Garadkar
J Mater Sci: Mater Electron, 10

2017

14) A Quinazolinone Based Novel Fluorescent Nanoprobe for Selective Detection of Bovine Serum Albumin: Spectroscopic, Photophysical and Analytical Approach

DP Bhopate, GM ab Prasad, AA Patil, RR Salunkhe, K M Garadkar,
Imperial Journal of Interdisciplinary Research 3 (3)

2017

15) Sunlight driven high photocatalytic activity of Sn doped N-TiO₂ nanoparticles synthesized by a microwave assisted method

A Kadam, R Dhabbe, D Shin, K Garadkar, J Park
Ceramics International

16 Green synthesis of ZnO nanoparticles by using Calotropis procera leaves for the photodegradation of methyl orange

VV Gawade, NL Gavade, HM Shinde, SB Babar, K. M. Garadkar
Journal of Materials Science: Materials in Electronics, 1-7

2017

2) Enhanced photocatalytic activity of europium doped TiO₂ under sunlight for the degradation of methyl orange

GV Khade, NL Gavade, MB Suwarnkar, MJ Dhanavade, KD
Sonawane, K. M. Garadkar

2017

Journal of Materials Science: Materials in Electronics, 1-10

3) Improvement of photocatalytic activity of TiO₂-WO₃ nanocomposite by the anionically substituted N and S

PN Gaikwad, TM Wandre, K M Garadkar, PP Hankare, R Sasikala
Colloids and Surfaces A: Physicochemical and Engineering Aspects
506, 804-811

2016

8) Decoration of biogenic AgNPs on template free ZnO nanorods for sunlight driven photocatalytic detoxification of dyes and inhibition of

2016

bacteria

N. L. Gawade K M Garadkar*

J Mater Sci: Mater Electron, 1-12

-
- 4) Sol-gel microwave assisted synthesis of Sm-doped TiO₂ nanoparticles and their photocatalytic activity for the degradation of Methyl Orange under sunlight 2016
GV Khade, MB Suwarnkar, NL Gavade, K M Garadkar
Journal of Materials Science: Materials in Electronics 27 (6), 6425-6432
-
- 5) Photocatalytic performance of magnetically separable Fe, N co-doped TiO₂-cobalt ferrite nanocomposite 2016
PN Gaikwad, PP Hankare, TM Wandre, K M Garadkar, R Sasikala
Materials Science and Engineering: B 205, 40-45
-
- 6) Template free synthesis of ZnO/Ag₂O nanocomposites as a highly efficient visible active photocatalyst for detoxification of methyl orange 2016
A Kadam, R Dhabbe, A Gophane, T Sathe, K Garadkar
Journal of Photochemistry and Photobiology B: Biology 154, 24-33
-
- 7) Sol-gel synthesized TiO₂-CeO₂ nanocomposite: an efficient photocatalyst for degradation of methyl orange under sunlight 2016
TM Wandre, PN Gaikwad, AS Tapase, K M Garadkar, SA Vanalakar,
...
Journal of Materials Science: Materials in Electronics 27 (1), 825-833
-
- 8) Modification of TiO₂ nanoparticles by HZSM-5 for the enhancement in photodegradation of Acid Green 25 2016
MB Suwarnkar, AN Kadam, GV Khade, NL Gavade, K M Garadkar
Journal of Materials Science: Materials in Electronics 27 (1), 843-851
-
- 9) Template free large scale synthesis of multi-shaped ZnO nanostructures for optical, photocatalytic and antibacterial properties 2015
AN Kadam, RS Dhabbe, MR Kokate, NL Gavade, K. M. Garadkar
Journal of Materials Science: Materials in Electronics 26 (11), 8367-
-
- 10) Polyvinyl pyrrolidone capped fluorescent anthracene nanoparticles for sensing fluorescein sodium in aqueous solution and analytical application for ophthalmic samples 2015
DP Bhopate, PG Mahajan, K M Garadkar, GB Kolekar, SR Patil
Luminescence 30 (7), 1055-1063
-
- 11) Microwave Assisted Synthesis and Enhanced Photocatalytic Activity of Solar-Light-Active N-Doped TiO₂-ZnO Nanoparticles 2015
A Kadam, R Dhabbe, K Garadkar
Journal of Nanoengineering and Nanomanufacturing 5 (3), 176-185
-
- 12) Sn-Doped TiO₂: Efficient Photocatalyst for Degradation of Methyl Orange Under Sunlight 2015

PP Hankare, TM Wandre, PN Gaikwad, K M Garadkar, IS Mulla, ...
Journal of Nanoengineering and Nanomanufacturing 5 (3), 204-209

13) Magnetite–Silica–Gold Nanocomposite: One-Pot Single-Step
Synthesis and Its Application for Solvent-Free Oxidation of Benzyl
Alcohol 2015

M Kokate, S Dapurkar, K Garadkar, A Gole
The Journal of Physical Chemistry C 119 (25), 14214-14223

14) Green synthesis of TiO₂ and its photocatalytic activity
GV Khade, MB Suwarnkar, NL Gavade, K M Garadkar 2015
Journal of Materials Science: Materials in Electronics 26 (5), 3309-
3315

15) Improving magnetic and structural properties of Zn_{1-x} Cu_x
FeCrO₄ by substituting copper synthesized by citrate gel
autocombustion route 2015

PP Hankare, AS Tapase, RS Pandav, K M Garadkar, I S Mulla
Materials Science in Semiconductor Processing 31, 439-445

16) Biogenic synthesis of multi-applicative silver nanoparticles by
using Ziziphus Jujuba leaf extract 2015
NL Gavade, AN Kadam, MB Suwarnkar, VP Ghodake, KM Garadkar
Spectrochimica Acta Part A: Molecular and Biomolecular
Spectroscopy 136, 953-960

17) A highly selective and sensitive single click novel fluorescent off-
on sensor for copper and sulfide ions detection directly in aqueous
solution using curcumin nanoparticles 2015

DP Bhopate, PG Mahajan, K M Garadkar, GB Kolekar, SR Patil
New Journal of Chemistry 39 (9), 7086-7096

18) CuO-Islands on Nanostructured ZrO₂ Surface Act as the ppm
Level Ammonia Gas Monitor Working at Room Temperature 2015
BS Shirke, HM Shinde, M Garadkar, DR Patil
Weber Advanced Physics

19) Preparation of N doped TiO₂ via microwave-assisted method and
its photocatalytic activity for degradation of Malathion 2014
AN Kadam, RS Dhabbe, MR Kokate, YB Gaikwad, K M Garadkar
Spectrochimica Acta Part A: Molecular and Biomolecular
Spectroscopy 133, 669-676

20) In-vitro bio-fabrication of silver nanoparticle using Adhathoda
vasica leaf extract and its anti-microbial activity 2014
GM Nazeruddin, NR Prasad, SR Prasad, K M Garadkar, AK Nayak
Physica E: Low-Dimensional Systems and Nanostructures 61, 56-61

21) Enhancement in the photocatalytic activity of Ag loaded N-doped
TiO₂ nanocomposite under sunlight 2014
RS Dhabbe, AN Kadam, MB Suwarnkar, MR Kokate, K M Garadkar

Journal of Materials Science: Materials in Electronics 25 (7), 3179-3189

22) Enhanced photocatalytic activity of Ag doped TiO₂ nanoparticles synthesized by a microwave assisted method
MB Suwarnkar, RS Dhabbe, AN Kadam, K M Garadkar
Ceramics International 40 (4), 5489-5496
2014

23) Photocatalytic activity of Eu³⁺-doped ZnO nanorods synthesized via microwave assisted technique
PV Korake, AN Kadam, K M Garadkar
Journal of Rare Earths 32 (4), 306-313
2014

24) Room temperature synthesis of CdS nanoflakes for photocatalytic properties
AN Kadam, RS Dhabbe, MR Kokate, K M Garadkar
Journal of Materials Science: Materials in Electronics 25 (4), 1887-1892
2014

25) Extracellular biosynthesis of silver nanoparticle using *Azadirachta indica* leaf extract and its anti-microbial activity
GM Nazeruddin, NR Prasad, SR Waghmare, K M Garadkar, IS Mulla
Journal of Alloys and Compounds 583, 272-277
2014

26) Highly active lanthanum doped ZnO nanorods for photodegradation of metasytox
PV Korake, RS Dhabbe, AN Kadam, YB Gaikwad, K M Garadkar
Journal of Photochemistry and Photobiology B: Biology 130, 11-19
2014

27) RS Dhabbe, AN Kadam, MB Suwarnkar, MR Kokate & K M Garadkar
J Mater Sci: Mater Electron 25, 3179-3189
2014

28) Morphological and optoelectronic studies on poly-crystalline leaf-like cobalt selenide thin film synthesized using a chemical bath deposition technique
ML Gaur, PP Hankare, K M Garadkar, IS Mulla, VM Bhuse
New Journal of Chemistry 38 (1), 255-259
2014

29) CdSe thin films: morphological, optoelectronic and photoelectrochemical studies
ML Gaur, PP Hankare, KM Garadkar, SD Delekar, VM Bhuse
Journal of Materials Science: Materials in Electronics 25 (1), 190-195
2014

30) Pyrene nanoparticles as a novel FRET probe for detection of rhodamine 6G: spectroscopic ruler for textile effluent
DP Bhopate, PG Mahajan, K M Garadkar, GB Kolekar, SR Patil
RSC Advances 4 (109), 63866-63874
2014

31) Effect of cobalt doping on structural and thermoelectrical power of zinc allu chromites synthesised by sol-gel auto-combustion method
2013

PP Hankare, KR Sanadi, AV Mali, K M Garadkar, SD Delekar, IS Mulla
Materials Letters 110, 42-44

32) A facile synthesis of ZnWO₄ nanoparticles by microwave assisted technique and its application in photocatalysis
K M Garadkar, LA Ghule, KB Sapnar, SD Dhole
Materials Research Bulletin 48 (3), 1105-1109
2013

33) Synthesis and characterization of nickel substituted cobalt ferrite nanoparticles by sol-gel auto-combustion method
PP Hankare, KR Sanadi, K M Garadkar, DR Patil, IS Mulla
Journal of Alloys and Compounds 553, 383-388
2013

34) One pot synthesis of magnetite-silica nanocomposites: applications as tags, entrapment matrix and in water purification
M Kokate, K Garadkar, A Gole
Journal of Materials Chemistry A 1 (6), 2022-2029
2013

35) Cetyltrimethylammonium bromide stabilized perylene nanoparticles for fluorimetric estimation of bicarbonate (HCO₃⁻) anion: spectroscopic approach
DP Bhopate, GB Kolekar, K M Garadkar, SR Patil
Analytical Methods 5 (19), 5324-5330
2013

36) Synthesis, structural and magnetic properties of copper substituted nickel manganite
PP Hankare, RS Pandav, RP Patil, VT Vader, K M Garadkar
Journal of Alloys and Compounds 544, 197-202
2012

37) Antimicrobial Activity of 6.5 MeV Electron-Irradiated ZnO Nanoparticles Synthesized by Microwave-Assisted Method
KB Sapnar, LA Ghule, A Bankar, S Zinjarde, VN Bhoraskar, K M Garadkar, ...
International Journal of Green Nanotechnology 4 (4), 477-483
2012

38) Photocatalytic degradation of phosphamidon using Ag-doped ZnO nanorods
PV Korake, R Sridharkrishna, PP Hankare, K M Garadkar
Toxicological & Environmental Chemistry 94 (6), 1075-1085
2012

39) Effect of sintering temperature on structural, magnetic properties of lithium chromium ferrite
RP Patil, PP Hankare, K M Garadkar, R Sasikala
Journal of Alloys and Compounds 523, 66-71
2012

40) Structural and surface morphological properties of chemically deposited MoO₃. 5WO₃. 5S₂ thin film
AA Patil, PP Hankare, AB Gaikawad, K M Garadkar
Journal of Materials Science: Materials in Electronics 23 (4), 909-912
2012

41) Photocatalytic activity of 6.5 MeV electron-irradiated ZnO nanorods KB Sapnar, LA Ghule, SV Bhoraskar, K M Garadkar, SD Dhole, ... Radiation Effects and Defects in Solids 167 (4), 238-246	2012
42) Chemical deposition of CuInSe ₂ thin films by photoelectrochemical applications PP Hankare, KC Rathod, PA Chate, K M Garadkar, DJ Sathe, IS Mulla Journal of Alloys and Compounds 511 (1), 50-53	2012
43) Enhanced photocatalytic degradation of methyl red and thymol blue using titania–alumina–zinc ferrite nanocomposite PP Hankare, RP Patil, AV Jadhav, K M Garadkar, R Sasikala Applied Catalysis B: Environmental 107 (3), 333-339	2011
44) Preparation of zinc oxide nanorods by microwave assisted technique using ethylene glycol as a stabilizing agent LA Ghule, BS Shirke, KB Sapnar, SD Dhole, PP Hankare, K M Garadkar Journal of Materials Science: Materials in Electronics 22 (8), 1120-1123	2011
45) Synthesis and characterization of pure anatase TiO ₂ nanoparticles BS Shirke, PV Korake, PP Hankare, SR Bamane, K M Garadkar Journal of Materials Science: Materials in Electronics 22 (7), 821-824	2011
46) Photoelectrochemical applications of In ₂ Se ₃ thin films by chemical deposition PP Hankare, KC Rathod, MR Asabe, AV Jadhav, VB Helavi, SS Chavan, ... Journal of Materials Science: Materials in Electronics 22 (4), 359-364	2011
47) Low cost nanostructured anatase TiO ₂ as a H ₂ S gas sensor synthesized by microwave assisted technique K M Garadkar, BS Shirke, PP Hankare, DR Patil Sensor Letters 9 (2), 526-532	2011
48) Photocatalytic degradation of methyl orange using ZnO nanorods LA Ghule, AA Patil, KB Sapnar, SD Dhole, K M Garadkar Toxicological & Environmental Chemistry 93 (4), 623-634	2011
49) Synthesis, dielectric behavior and impedance measurement studies of Cr-substituted Zn–Mn ferrites PP Hankare, RP Patil, K M Garadkar, R Sasikala, BK Chougule Materials Research Bulletin 46 (3), 447-452	2011
50) Magnetic and dielectric studies of nanocrystalline zinc substituted Cu–Mn ferrites PP Hankare, UB Sankpal, RP Patil, AV Jadhav, K M Garadkar, ... Journal of Magnetism and Magnetic Materials 323 (5), 389-393	2011

51) Synthesis and characterization of nanocrystalline Ti-substituted Zn ferrite PP Hankare, RP Patil, AV Jadhav, RS Pandav, K M Garadkar, R Sasikala, ... Journal of Alloys and Compounds 509 (5), 2160-2163	2011
52) Synthesis of cerium oxide nanoparticles by microwave technique using propylene glycol as a stabilizing agent BS Shirke, AA Patil, PP Hankare, K M Garadkar Journal of Materials Science: Materials in Electronics 22 (2), 200-203	2011
53) Synthesis and morphological study of chromium substituted Zn–Mn ferrites nanostructures via sol–gel method PP Hankare, RP Patil, UB Sankpal, SD Jadhav, K M Garadkar, SN Achary Journal of Alloys and Compounds 509 (2), 276-280	2011
54) Magnetic, dielectric and complex impedance spectroscopic studies of nanocrystalline Cr substituted Li-ferrite PP Hankare, RP Patil, UB Sankpal, K M Garadkar, R Sasikala, AK Tripathi, ... Journal of Magnetism and Magnetic Materials 322 (18), 2629-2633	2010
55) Preparation and characterization of CuInSe ₂ thin films by chemical bath deposition technique PP Hankare, KC Rathod, PA Chate, AV Jadhav, K. M. Garadkar Journal of Alloys and Compounds 500 (1), 78-81	2010
56) Synthesis and characterization of nanocrystalline zinc substituted nickel ferrites PP Hankare, UB Sankpal, RP Patil, IS Mulla, R Sasikala, AK Tripathi, ... Journal of Alloys and Compounds 496 (1), 256-260	2010
57) Effect of annealing on chemically deposited polycrystalline CdTe thin films KM Garadkar, SJ Pawar, PP Hankare, AA Patil Journal of Alloys and Compounds 491 (1), 77-80	2010
58) Synthesis and characterization of nickel selenide thin films deposited by chemical method PP Hankare, BV Jadhav, KM Garadkar, PA Chate, IS Mulla, SD Delekar Journal of Alloys and Compounds 490 (1), 228-231	2010
59) Characterization of CdS thin films synthesized by SILAR method at room temperature KM Garadkar, AA Patil, PV Korake, PP Hankare Arch. Appl. Sci. Res 2, 429-437	2010
60) Novel method for synthesis of ZnO nanorods and its applications	2009

as highly selective chlorine sensors working at low temperature
DR Patil, DD Kale, SR Patil, KM Garadkar
Sensor Letters 7 (6), 1057-1064

61) MoS₂: preparation and their characterization
KM Garadkar, AA Patil, PP Hankare, PA Chate, DJ Sathe, SD
Delekar 2009
Journal of Alloys and Compounds 487 (1), 786-789

62) Nanostructured ZrO₂ Thick Film Resistors as H₂-
Gas Sensors Operable at Room Temperature 2009
KM Garadkar, BS Shirke, YB Patil, DR Patil
Sensors & Transducers 110 (11), 17

63) WS₂ thin films: opto-electronic characterization
PP Hankare, AH Manikshete, DJ Sathe, PA Chate, AA Patil, KM
Garadkar 2009
Journal of Alloys and Compounds 479 (1), 657-660

64) Preparation of copper selenide thin films by simple chemical route
at low temperature and their characterization 2009
PP Hankare, AS Khomane, PA Chate, KC Rathod, KM Garadkar
Journal of Alloys and Compounds 469 (1), 478-482

65) Novel chemical synthetic route and characterization of tungsten
diselenide thin films 2009
PP Hankare, AH Manikshete, DJ Sathe, PA Chate, KC Rathod
Materials Chemistry and Physics 113 (1), 183-186

66) Characterization of MoSe₂ thin film deposited at room
temperature from solution phase 2008
PP Hankare, AA Patil, PA Chate, KM Garadkar, DJ Sathe, AH
Manikshete, ...
Journal of Crystal Growth 311 (1), 15-19

67) Structural, optical and microscopic properties of chemically
deposited In₂Se₃ thin films 2008
PP Hankare, MR Asabe, PA Chate, KC Rathod
Journal of Materials Science: Materials in Electronics 19 (12), 1252-
1257

68) Synthesis and characterization of tin sulphide thin films grown by
chemical bath deposition technique 2008
PP Hankare, AV Jadhav, PA Chate, KC Rathod, PA Chavan, SA
Ingole
Journal of Alloys and Compounds 463 (1), 581-584

69) Synthesis, characterization of chemically deposited indium
selenide thin films at room temperature 2008
MR Asabe, PA Chate, SD Delekar, KM Garadkar, IS Mulla, PP
Hankare

Journal of Physics and Chemistry of Solids 69 (1), 249-254	
70) Preparation and characterization of cadmium telluride thin films by chemical bath deposition method PP Hankare, KC Rathod, MR Asabe, AV Jadhav, KM Garadkar	2008
71) Kinetics of hydrogen peroxide decomposition in aqueous sulphuric acid on mixed Zn-Co oxides SR Bamane, KM Garadkar OXIDATION COMMUNICATIONS 30 (1), 172-179	2007
72) Synthesis of Cadmium Selenide thin films at low-temperature by simple Chemical route and their Characterization PP Hankare, SD Delekar, MR Asabe, PA Chate, VM Bhuse, AS Khomane, ... Journal of Physics and Chemistry of Solids 67 (12), 2506-2511	2006
73) Characterization of Cd _{1-x} Zn _x Se thin films deposited at low temperature by chemical route PP Hankare, PA Chate, MR Asabe, SD Delekar, IS Mulla, KM Garadkar Journal of Materials Science: Materials in Electronics 17 (12), 1055-1063	2006
74) Structural and opto-electrical properties of molybdenum diselenide thin films deposited by chemical bath method PP Hankare, PA Chate, SD Delekar, VM Bhuse, MR Asabe, BV Jadhav, ... Journal of crystal growth 291 (1), 40-44	2006
75) Kinetics of hydrogen peroxide decomposition in aqueous sulphuric acid over Zn, Co oxides and mixed oxides SR Bamane, KM Garadkar OXIDATION COMMUNICATIONS 29 (2), 258-265	2006
76) A novel route to synthesize Cd _{1-x} Pb _x Se thin films from solution phase PP Hankare, SD Delekar, PA Chate, SD Sabane, KM Garadkar, ... Semiconductor science and technology 20 (3), 257	2005
77) Low temperature route to grow polycrystalline cadmium selenide and mercury selenide thin films PP Hankare, VM Bhuse, KM Garadkar, SD Delekar, IS Mulla Materials chemistry and physics 82 (3), 711-717	2003
78) Synthesis and characterization of chemically deposited lead selenide thin films PP Hankare, SD Delekar, VM Bhuse, KM Garadkar, SD Sabane, ... Materials chemistry and physics 82 (3), 505-508	2003
79) CdHgSe thin films: preparation, characterization and	2003

optoelectronic studies

PP Hankare, VM Bhuse, KM Garadkar, SD Delekar, PR Bhagat
Semiconductor science and technology 19 (2), 277

80) Chemical deposition of cubic CdSe and HgSe thin films and their characterization

PP Hankare, VM Bhuse, KM Garadkar, SD Delekar, IS Mulla
Semiconductor science and technology 19 (1), 70

2003

81) Chemical deposition of thallium doped cadmium selenide thin films and their characterization

PP Hankare, AD Jadhav, VM Bhuse, AS Khomane, KM Garadkar
Materials chemistry and physics 80 (1), 102-107

2003

82) A simple, convenient, low temperature route to grow polycrystalline copper selenide thin films

VM Bhuse, PP Hankare, KM Garadkar, AS Khomane
Materials chemistry and physics 80 (1), 82-88

2003

83) Synthesis and X-ray diffraction studies of 4-[2'-hydroxy salicylidene-5'(2"-thiazolylazo)] methoxy benzene

PP Hankare, LV Gavali, VM Bhuse, KM Garadkar, SD Delekar, PS Battase
NISCAIR-CSIR, India

2003

84) A novel method to grow polycrystalline HgSe thin film

PP Hankare, VM Bhuse, KM Garadkar, AD Jadhav
Materials chemistry and physics 71 (1), 53-57

2001

85) Synthesis and characterization of cobalt (II), nickel (II), copper (II), zinc (II), cadmium (II) and mercury (II) complexes with 2-hydroxyimino-3-(2'-imino-4-phenylthiazolyl)-butane and 2-hydroxyimino-3-[2'-imino-4'(p-tolulylthiazolyl)]-butane

PP Hankare, PH Bhoite, PS Battase, KM Garadkar, AH Jagtap
NISCAIR-CSIR, India

2000

86) Cd_{1-x}Hg_xS thin film electrodes: an electrochemical solar cell approach

KM Garadkar, PP Hankare
International journal of electronics 86 (11), 1311-1320

1999

87) Effect of indium doping on structural, optical and electrical properties of Cd_{0.95}Hg_{0.05}S thin films

KM Garadkar, PP Hankare, RK Patil
Materials chemistry and physics 58 (1), 64-70

1999

88) Studies on solution grown Hg_xCd_{1-x}S thin films

LP Deshmukh, KM Garadkar, DS Suttrave
Materials chemistry and physics 55 (1), 30-35

1998

89) Structural and electrical properties of indium doped Cd _{0.7} Zn _{0.3} S thin films LP Deshmukh, CB Rotti, KM Garadkar, GS Shahane Indian journal of pure & applied physics 36, 322-327	1998
90) (Cd, Hg) S pseudo-binary thin films: Growth and properties LP Deshmukh, KM Garadkar, PP Hankare, GS Shahane, DS Sutrave Indian journal of pure & applied physics 36 (2), 91-96	1998
91) Condensed Matter: Electronic Structure, Electrical, Magnetic and Optical Properties Structural and electrical properties of indium doped Cd _{0.7} Zn _{0.3} S thin films: A correlation LP Deshmukh, CB Rotti, KM Garadkar, GS Shahane INDIAN JOURNAL OF PURE AND APPLIED PHYSICS 36, 322-327	1998
92) Structural, optical and electrical properties of indium doped CdS _{0.9} Se _{0.1} thin films GS Shahane, KM Garadkar, LP Deshmukh Materials chemistry and physics 51 (3), 246-251	1997
93) In-doped CdS» Sea. 1 photoelectrode for electrochemical solar cell applications LP Deshmukh, GS Shahane, KM Garadkar Indian journal of pure & applied physics 35, 560-564	1997
94) Cd _{1-x} Zn _x S thin film electrode for photoelectrochemical (PEC) applications LP Deshmukh, CB Rotti, KM Garadkar Materials chemistry and physics 50 (1), 45-49	1997
95) Structural, optical and electrical properties of indium doped CdS _{0.9} Se _{0.1} thin films LP Deshmukh, GS Shahane, KM Garadkar Materials Chemistry and Physics 3 (51), 246-251	1997
96) Synthesis and Optical Characteristics of Solution Grown Hg _x Cd _{1-x} S Thin Films LP Deshmukh, KM Garadkar, GS Shahane, PP Hankare Solid State Phenomena 55, 174-176	1997
97) Structural and optical properties of Cd _{1-x} Zn _x S mixed thin films LP Deshmukh, CB Rotti, KM Garadkar, PP Hankare, BM More, ... Indian journal of pure & applied physics 35 (7), 428-431	1997
98) n-Cd _{0.925} Pb _{0.075} S: Sb Photoelectrode/Electrolyte Solar Cells LP Deshmukh, BM More, KM Garadkar, GS Shahane Solid State Phenomena 55, 120-122	1997
99) Crystalline Bi ₂ Se ₃ Thin Films: Growth and Properties LP Deshmukh, DS Sutrave, KM Garadkar, GS Shahane, RN Mulik	1997

Solid State Phenomena 55, 7-9

100)	POLYCRYSTALLINE LEAD SELENIDE THIN FILMS: GROWTH FROM SOLUTION AND PROPERT	
	RN Mulik, CB Rotti, BM More, DS Sutrave, GS Shahane, KM Garadkar, ...	1996
	Indian journal of pure & applied physics 34 (11), 903-907	
101)	Studies on silver sulphide thin films prepared in an aqueous alkaline medium	
	LP Deshmukh, BM More, SG Holikatti, CB Rotti, KM Garadkar, ...	1996
	Bulletin of electrochemistry 12 (3-4), 151-153	
102)	Electrical transport properties of (Cd, Zn) S thin films	
	LP Deshmukh, CB Rotti, KM Garadkar, PP Hankare	1996
	Indian journal of pure & applied physics 34 (11), 893-897	
103)	A Study of $Pb_xCd_{1-x}S$ Based Photoelectrochemical Cells	
	LP Deshmukh, BM More, CB Rotti, KM Garadkar, DS Sutrave	1996
	Semiconductor Devices 2733, 550	
104)	Studies on chemically deposited $Sb_2S_3: Ag$ mixed thin films	
	LP Deshmukh, SG Holikatti, CB Rotti, KM Garadkar	1996
	Bulletin of electrochemistry 12 (3-4), 157-161	

**12. List o Conference/ /Workshops/ Seminars attended:
Best Paper Presentation to Students**

- 1) Mr Suwarnkar M. B First Best Poster presentation in Int. Conf at
Solapur : 2013
- 2) Mr Korake P. V. II Best Poster presentation in Nat. Conf at
Pandharpur :2012
- 3) Mr Korake P. V. II Best Oral presentation in Nat Conf. at
Pandharpur : 2013

Other Activities

Worked as a Referee for the Assessment of Ph. D. Thesis.

- 1) S. P. Pune University, Pune
- 2) Calcutta University, Kolkata
- 3) RSTM University, Nagpur
- 4) S. G .B University, Amravati,
- 5) Kuvempu University, Shimoga, Karnataka,
- 6) Gulbarga University, Gulbarga
- 7) Anna University, Madras, Chennai
- 8) Karnataka University, Dharwad
- 9) BAMU, University, Aurangabad,
- 10) Academy of Scientific & Innovative Research, NCL, Pune
- 11) Bharathidasan University, Thiruchirappalli

1) Worked As Rector, Boys Hostel, Shivaji University, Kolhapur (2011)

2) Worked as Treasurer, in the National Conference 20-21 Jan 2011.

International Collaboration

- 1) **Prof. JINSUB PARK**
DEPARTMENT OF ELECTRONICS
HANYANG UNIVERSITY,
SOUTH KOREA

National Collaboration

- 1) Prof. V. Boraskar, Prof Dhole Sanjay Department of Physics, S. P. Pune, University, Pune**
- 2) R. Sasikala Chemistry Division BARC, Mumbai**
- 3) Prof. Sathe , Department of Zoology, Prof. Sonwane Department of Biochemistry, Shivaji University, Kolhapur**

Prof. K. M. Garadkar Reviewer of the International Journals

- 1 Journal of Magnetism and Magnetic Materials (Elsevier)
- 2 ACS Applied Materials & Interfaces (ACS)
- 3 Journal of Material Science and Engineering C (Elsevier)
- 4 Chinese Journal of Chemistry
- 5 Journal of Industrial and Engineering Chemistry
- 6 Journal of Solution Chemistry
- 7 Catalysis Communications
- 8) Med Pub Journals
- 9 Scientific Reports (Nature Publishing Group)
- 10 Journal of Environmental Engineering ((Elsevier)
- 11 Journal of Optoelectronics and Advanced Materials
- 12 Journal of Environmental Chemical Engineering
- 13 Environmental Nanotechnology and Management
- 14 Research on Chemical Intermediates
- 15 Particulate Science and Technology
- 16 Nanoscience and Nanotechnology Letters
- 17 Chinese Journal of Chemical Engineering
- 18 Applied Catalysis B Environmental ((Elsevier)

- 19 Photochemistry and Photobiology , The American Society of Photobiology
- 20 Photonics and Nanostructures - Fundamentals and Applications
- 21 Indian Journal of Pure and Applied Physics
- 22 Journal of Materials Science (Springer)
- 23 Australian Journal of Chemistry
- 24 Materials Science in Semiconductor Processing ((Elsevier)
- 25 Indian Journal of Materials Science (Hindwai)
- 26 Journal of Materials science and Engineering A ((Elsevier)
- 27 Journal of Photochemistry and Photobiology B Biology ((Elsevier)
- 28 Journal of Photochemistry and Photobiology A Chemistry ((Elsevier)
- 29 Materials Science in Semiconductor Processing ((Elsevier)
- 30 Inorganic Materials
- 31 Journal of Metallurgy(Hindawi)
- 32 Journal of Materials Science Materials in Electronics(Springer_
- 33 Toxicological and Environmental Chemistry (Taylor & Francies)
- 34 Journal of Thermal Analysis and Calorimetry (Springer)
- 35 The Bulletin of the Korean Chemical Society
- 36 Chemical Papers (Springer)
- 37 Applied Surface Science (Elsevier)
- 38 Journal of Hazardous Materials (Elsevier)
- 39 Indian Journal of Material Science (CSIR)
- 40 Journal of the Taiwan Institute of Chemical Engineers
- 41 Journal of Photochemistry and Photobiology A Chemistry (Elsevier)
- 42 Journal of Saudi Chemical Society (Elsevier)
- 43 Journal of Materials Chemistry A (RSC)
- 44 Material Research Bulletin (Elsevier)

- 45 Journal of Arabian Chemistry (Elsevier)
- 46 Materials Chemistry and Physics (Elsevier)
- 47 International Journal of Hydrogen Energy (Elsevier)
- 48 Green Chemistry (RSC)
- 49 Synthesis and Reactivity in Inorganic, Metal Organic and Nano Metal
Chemistry
- 50 Journal of Cluster Science (Springer)
- 51 Journal of Applied Physics: D(IOP)
- 52 Journal of Materials Chemistry A (RSC)
- 53 Journal of Materials Chemistry C (RSC)