# Curriculum Vitae

Dr. Govind B. Kolekar (M.Sc., Ph.D.)

Co-ordinator, RUSA

Co-ordinator, Department of Applied Chemistry

Professor of Physical Chemistry

Fluorescence Spectroscopy Research Laboratory,

Department of Chemistry, Shivaji University,

Kolhapur-416004, (MS), India.

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Permanent Address: 'Siddhi-Vinayak' Plot B-1 (54), Mahalaxmi Park,

Mhada Colony, Rajendranagar, Kolhapur-416004, (MS) India.

**Teaching Experience:** (27 Years & 10 Months)

 Professor of Physical Chemistry in Department of Chemistry, Shivaji University, Kolhapur. Since 1<sup>st</sup> January, 2009 to till date

 Associate Professor/ Reader in Physical Chemistry in the Department of Chemistry, Shivaji University, Kolhapur. Since 1<sup>st</sup> July, 2005 to 31 Dec 2008.

■ Lecturer: Shankarao Mohite Mahavidyalaya, Akluj from 4<sup>th</sup> March 1991 to 30<sup>th</sup> June 2005.

**Research Interest:** Synthesis, Functionalization, Photophysical study and Analytical

applications of Nanomaterials, Fluorescence based Nanosensors

**Students Guided:** Ph. D.: 11 + 06\*, M. Phil.: 03 (\*Working)

**Students Co-guided:** Ph.D. - 03\*

**Publications**: International: 102, National: 09& Proceedings: 06

Lectures/Invited Talks: at International/National/ State/College level 42

**Papers Presented:** Conferences/Symposia/Seminars etc.

**Books Published:** 04

Total citations 1368 h-index: 23 i10-index: 42



# **FELLOWSHIPS/POST DOCTORAL:**

- ✓ ARN Visiting scientist: Hanyang University, Seoul, South Korea during May-June 2009under Asian Research Network (ARN) program.
- ✓ *INSA Visiting fellow*: Kyungpook National University, Taegu, S. Korea during Sept.Oct.2009 under INSA, India NRF of S. Korea bilateral exchange Program.

# **ACADEMIC RESPONSIBILITIES IN OTHER UNIVERSITY:**

- ✓ Visiting Professor: Hanyang University, Seoul, South Korea(Sept-Dec 2014)
- ✓ *Member*, *Board of Studies (BOS)*:Kuvempu University,Shankarghatta, Shimoga, Karnataka State (2017 onwards)
- ✓ *Member, Board of Examination (BOE)* Kuvempu University, Shankarghatta, Shimoga, Karnataka State
- ✓ *Chairman, Board of Examination (BOE)*:Akkamahadevi Womens University, Vijapur, Karnataka State (2015 onwards)
- ✓ *Member*, *Board of Studies (BOS)*: Akkamahadevi Womens University, Vijapur, Karnataka State (2016 onwards)
- ✓ Examiner / Referee for Ph D in Chemistry:1) Gulberga University, Gulberga
  2) Solapur University, Solapur 3) Kuvempu University, Shimoga 4) Dr.
  Babasaheb Ambedkar Marathwada University, Aurangabad 5) Savitribai Phule
  Pune University, Pune, 6) Mysore University, Mysore 7)Akkamahadevi
  Women's University, Vijayapura, 8) Venkateshwara University, Tirupati 9)
  Mother Teresa Women's University Kodaikanal Tamilnadu, 10)Bharati
  Deemed University, Pune 11) Mumbai University, Mumbai 12) RMIT
  University, Melbourne, Australia.

### **ADMINISTRATIVE RESPONSIBILITIES:**

- 1) Co-ordinator, Department of Applied Chemistry
- 2) Co-ordinator, RUSA
- 3) Member of SENATE, Shivaji University, Kolhapur (2010-2015)
- 4) Member, Board of Studies (BOS), Department of Chemistry, Shivaji University, Kolhapur. (2018-)
- 5) Chief Rector, Hostels, Shivaji University Kolhapur (2015-2017)
- 6) Rector, Dr. Appasaheb Pawar Vidhyarti Bhavan 'EARN & LEARN' Scheme, Shivaji University Kolhapur, (2012-2015)

- 7) Program Officer, National Service Scheme (NSS), Shivaji University Kolhapur, (2010-2015)
- 8) Co-ordinator, Assessment of Grampanchayats under Nirmal Gram Yojana, Kolhapur District (2007-2008)
- 9) Co-ordinator, International Year of Chemistry-2011, Shivaji University Kolhapur
- 10)Staff Secretary, Department of Chemistry, Shivaji University Kolhapur (2008-2015)
- 11) Assistant Divisional Controller, Maharashtra Talent Search (MTS) Examination, Dist. Solapur (2003-2005)
- 12)Co-ordinator, Maharashtra Talent Search (MTS), Malshiras Taluka (1997-2003)
- 13) Chairman, Staff Student welfare committee, Department of Chemistry, Shivaji University Kolhapur (2015 onwards)
- 14) Member IQAC

### **LIST OF PUBLICATIONS:**

# **Indian Patents: (Filed)**

- 1. Carbon dots-Fe<sup>3+</sup> system as a dual probe for the selective determination of D-penicillamine. (**App. No. 201721041497**)
- 2. Quick and low cost simultaneous synthesis of sulphur doped carbon dots (S-C-dots) for the detection of Fe3+ ions and activated carbon (AC) for dye adsorption in high acid environment by simple acidic carbonization of sucrose. (App. No. 201721041508)
- 3. Nitrogen doped carbon dot hydrogel as a naked eye fluorescent sensor for detection of dopamine (App. No. 201921003890)

### **Books:**

- 1. A Text Book of Physical Chemistry at B.Sc. Part-I, Shivaji University, Kolhapur G. B. Kolekar et.al. Sheth Prakashan, Mumbai 2003
- 2. A Text Book of Physical Chemistry at B.Sc. Part-II, Shivaji University, Kolhapur G. B. Kolekar et.al. Sheth Prakashan, Mumbai 2004
- 3. A Text Book of Physical Chemistry at B.Sc. Part-III, Shivaji University, Kolhapur G. B. Kolekar et.al. Sheth Prakashan, Mumbai 2005
- 4. A Text Book of Analytical &Industrial Chemistry at B.Sc. Part-III, Shivaji University, Kolhapur G. B. Kolekar et.al. Sheth Prakashan, Mumbai 2006

### **Research Paper (National/International level):**

### 2018-19

118. Waste derived sustainable carbon nanodots as a new approach for sensitive quantification of Ethionamide and cell imaging *Datta B. Gunjal, Anil H. Gore, Amrut R. Bhosale, Vaibhav M. Naik, Prashant V.* 

Anbhule, Rajendra V. Shejwal, Govind B. Kolekar,

Journal of Photochemistry and Photobiology A: Chemistry, doi.org/10.1016/j.jphotochem.2019.02.031

117. One-pot three-component synthesis and photophysical properties of highly fluorescent novel 4-alkyl-3-aryl-2,6-dicyanoanilines by using tris (hydroxymethyl) amino methane as a catalyst

Ananada S. Kudale, Santosh B. Kamble, Anil H. Gore, Mahesh M. Pisal, Anil T. Salokhe, **Govind B. Kolekar**, Vasant B. Helavi

Chemical Data Collections 19 (2019) 100172

116. Carbon dots as a dual sensor for the selective determination of D-penicillamine and biological applications

Datta B. Gunjal, Anil H. Gore, Vaibhav M. Naik, Samadhan P. Pawar , Prashant V. Anbhule, Rajendra V. Shejwal, **Govind B. Kolekar** 

**Optical Materials 88 (2019) 134-142** 

115. Waste tea residue as a low cost adsorbent for removal of hydralazine hydrochloride pharmaceutical pollutant from aqueous media: An environmental remediation

Chandrashekhar S. Patil, Datta B. Gunjal, Vaibhav M. Naik, Namdev S. Harale, Suryabala D. Jagadale, Abhijit N. Kadam, Pramod S. Patil, **Govind B. Kolekar**, Anil H. Gore

Journal of Cleaner Production 206 (2019) 407-418

114. Unexpected formation of 4,5-dihydro-1 Hpyrazolo[3,4-b]pyridine derivatives as a potent antitubercular agent and its evaluation by green chemistry metrics *Dattatray K. Jamale, Sunil S. Vibhute, Santosh S. Undare, Navnath J. Valekar, Kirti T. Patil, Poojali P. Warekar, Priyanka T. Patil, Govind B. Kolekar, Prashant V. Anbhule* 

**Synthetic communications (48) 2018, 2750–2760** 

113. Sustainable carbon nanodots synthesised from kitchen derived waste tea residue for highly selective fluorimetric recognition of free chlorine in acidic water: A waste utilization approach

Datta B. Gunjal, Vaibhav M.Naik, Ravindra D.Waghmare, Chandrashekhar S.Patil, Rajendra V.Shejwal, Anil H.Gore, **Govind B.Kolekar** 

Journal of the Taiwan Institute of Chemical Engineers 95 (2019) 147-154

112. "Seems Bad Turns Good" – traces of precursor in dicationic ionic liquid lead to analytical application

Sandip K. Patil, Sagar C. Bhise, Deepak V. Awale, Madagonda M. Vadiyar, Suryakant A. Patil, Dattatray B. Gunjal, Govind B. Kolekar, Uma V. Ghorpade, Jin H. Kim, Sanjay S. Kolekar

Research on Chemical Intermediates 44 (2018) 6267-6282

111. Quick and low cost synthesis of sulphur doped carbon dots by simple acidic carbonization of sucrose for the detection of Fe3+ ions in highly acidic environment

Vaibhav Naik, Dattatray Gunjal, Anil Gore, Samadhan Pawar, Sunanda Mahanwar, Prashant Anbhule, **Govind Kolekar** 

**Diamond & Related Materials 88 (2018) 262-268.** 

110. Waste packaging polymeric foam for oil-water separation: An environmental remediation

Chandrashekhar S. Patil , Vaibhav R. Patil , Sanket N. Anbhule, Chandrakant J. Khilare, Govind B. Kolekar, Anil H. Gore

Data in Brief 19 (2018) 86-92

109. Enhanced Exciplex Emission of Pyrene Thin Films Doped by Perylene: Structural, Photophysical and Morphological Investigation

Netaji K. Desai, Prasad G. Mahajan, Sawanta S. Mali, Govind B. Kolekar, Shivajirao R. Patil

**Journal of Fluorescence 28 (2018) 897–903** 

108. Stereoselective HPLC separation of alvimopan on cellulose-based immobilized polysaccharide as a chiral stationary phase

Nitin H. Dhekale, Dattatray B. Gunjal, Anil H. Gore, Yagnakirankumar Komaravolu, K. Hima Bindu, **Govind B. Kolekar** 

Chirality. 30 (2018) 982–987

107. Synthesis of novel probe 2-chloro-6-methoxy-3-phenyl hydrazone quinoline and its application to detection of persulphate in aqueous ethanol solution by fluorescence turn on

Dhanshri V. Patil, Vishal S. Patil, Sandeep A. Sankpal, Govind B. Kolekar, Shivajirao R. Patil

Journal of Inclusion Phenomena and Macrocyclic Chemistry 90 (2018) 99–104

106. Selective recognition of Cr (VI) ion as Cr2O7 2- in aqueous medium using CTAB-capped anthracene-based nanosensor: Application to real water sample analysis

Sonali B. Suryawanshi, Prasad G. Mahajan, **Govind B. Kolekar**, Anita J. Bodake, Shivajirao R. Patil

J. Phys Org Chem. 2018; e3923. <a href="https://doi.org/10.1002/poc.3923">https://doi.org/10.1002/poc.3923</a>

105. AIEE active SDS stabilized 2-naphthol nanoparticles as a novel fluorescent sensor for the selective recognition of crystal violet: application to environmental analysis

Dattatray K. Dalavi, Sonali B. Suryawanshi, **Govind B. Kolekar** and Shivajirao R. Patil

Anal. Methods, 10, (2018) 2360

#### 2017-18:

104. Design and synthesis of some new piritrexim analogs as potential anticancer agents

Poojali P. Warekar, Kirti T. Patil, Priyanka T. Patil, Aniket P. Sarkate, Kshipra S. Karnik, Santosh S. Undare, **Govind B. Kolekar**, Madhukar B. Deshmukh, Shivadatta Prabhu, Prashant. V. Anbhule

Research on Chemical Intermediates 44 (2018) 749-767.

103.P<sub>2</sub>O<sub>5</sub> Mediated an Efficient Synthesis and Biological Evaluation of Heterocyclic-fused Pyrimidine Derivatives as an Antitubercular Agent Kirti T Patil, Poojali P Warekar, Priyanka T Patil, Santosh S Undare, Govind B Kolekar, Prashant V Anbhule

Journal of Heterocyclic Chemistry 10.1002/jhet.3018

102. An efficient, one-pot three components synthesis of [1,2,4] triazoloquinazolinone derivatives using anthranilic acid as green catalyst

Sunil Vibhute, Dattatraya Jamale, Santosh Undare, Navanath Valekar, **Govind Kolekar**, Prashant Anbhule

Res Chem Intermed 43 (2017) 4561-4574.

101. PTSA-catalyzed straightforward novel approach for the synthesis of 1,2-bis(4-nitrophenyl)-1H-benzo[f]chromen-3-amine and the evaluation of their antituberculosis activity

Poojali P. Warekar, Priyanka T. PatilKirti T. Patil, D. K. Jamale, Govind B. Kolekar, Prashant V. Anbhule

Res Chem Intermed 43 (2017) 4115-4127.

100.A simple and efficient one-pot novel synthesis of pyrazolo[3,4-b][1,8]naphthyridine and pyrazolo[3,4-d]pyrimido[1,2-a]pyrimidine derivatives as anti-inflammatory agents

Priyanka T Patil, Poojali P Warekar, Kirti T Patil, Santosh S Undare, DK Jamale, SS Vibhute, NJ Valekar, Govind B Kolekar, Madhukar B Deshmukh, Prashant V Anbhule

Research on Chemical Intermediates (2017) 1-12.

99. A Quinazolinone based fluorescent chemosensor for selective detection of Fe (III) in aqueous media: Applications to pharmaceutical and environmental analysis *Pravin R Dongare, Anil H Gore, Uttam R Kondekar, Govind B Kolekar, Balu D Ajalkar* 

Inorganic and Nano-Metal Chemistry (2017) 1-8.

98. FRET Between Riboflavin and 9-Anthraldehyde Based Fluorescent Organic Nanoparticles Possessing Antibacterial Activity

Prasad G Mahajan, Nilam C Dige, Sonali B Suryawanshi, Dattatray K Dalavi, Avinash A Kamble, Dhanaji P Bhopate, Abhijit N Kadam, Vijay V Kondalkar, Govind B Kolekar, Shivajirao R Patil Journal of fluorescence (2017) 1-9.

97. Studies on Structural, Optical, Thermal and Electrical Properties of Perylene Doped p-terphenyl Luminophors

Netaji K Desai, Prasad G Mahajan, Dhanaji P Bhopate, Dattatray K Dalavi, Avinash A Kamble, Anil H Gore, Tukaram D Dongale, Govind B Kolekar, Shivajirao R Patil

Journal of fluorescence (2017) 1-13.

**96.** A bio-oriented anthranilic acid catalyzed synthesis of quinazolin-8 (4 H)-one derivatives: Evaluation by green chemistry metrics

Sunil Vibhute, Dattatraya Jamale, Santosh Undare, Navanath Valekar, Kirti Patil, **Govind Kolekar**, Prashant Anbhule

Synthetic Communications 47 (2017)1747-1757

95. Tailor-made Dicationic Ionic Liquid as a Fluorescent Sensor for Detection of Hydroquinone and Catechol

Sandip K. Patil, Suryakant A. Patil, Madagonda M. Vadiyar, Deepak V. Awale, Ashish S. Sartape, Laxman S. Walekar, Govind B. Kolekar, Uma V. Ghorpade, Jin H. Kim, Sanjay S. Kolekar

Journal of Molecular Liquids 244 (2017) 39-45

### 2016-17:

94. Carbazole based nanoprobe for selective recognition of Fe3+ ion in aqueous medium: Spectroscopic insight

Sonali B. Suryawanshi, Prasad G. Mahajan, Anita J. Bodake, Govind B. Kolekar Shivajirao R. Patil

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 183 (2017) 232–238

93. Amide Functionalized Ionic Liquid as Facile Fluorescent Probe for Detection of Nitrophenolic Compounds

Sandip K. Patil, Deepak V. Awale, Madagonda M. Vadiyar, Suryakant A. Patil, Sagar C. Bhise, Anil H. Gore, Govind B. Kolekar, Jin H. Kim and Sanjay S. Kolekar

Chemistry Select 2, (2017) 4124 – 4130

92. Fluorescence-based sensor for selective and sensitive detection of amoxicillin (Amox) in aqueous medium: Application to pharmaceutical and biomedical analysis

Samadhan P. Pawar, Laxman S. Walekar, Dattatray B. Gunjal, Dattatray K. Dalavi, Anil H. Gore, Prashant V. Anbhule, Shivajirao R. Patil, Govind B. Kolekar

Luminescence (2017) 1-6.

91. Recognition of D-Penicillamine Using Schiff Base Centered Fluorescent Organic Nanoparticles and Application to Medicine Analysis

Prasad G Mahajan, Govind B Kolekar, Shivajirao R Patil,

*Journal of Fluorescence* 27, (2017) 829-839.

90. Fluorescence-based logic gate for sensing of Ca<sup>2+</sup> and F<sup>-</sup> ions using PVP crowned chrysene nanoparticles in aqueous medium

Prasad G Mahajan, Govind B. Kolekar, Shivajirao R Patil

*Luminescence* (2017)1-10

89. CdS nanocrystals as fluorescent probe for detection of dolasetron mesylate in aqueous solution: Application to biomedical analysis

Samadhan P Pawar, Laxman S Walekar, Uttam R Kondekar, Dattatray B Gunjal, Anil H Gore, Prashant V Anbhule, Shivajirao R Patil, Govind B Kolekar,

Journal of Pharmaceutical Analysis 6 (2016) 410-416

88. Ecofriendly synthesis and biological evaluation of 4-(4-nitro-phenyl)-2-phenyl-1, 4-dihydro-benzo [4, 5] imidazo [1, 2-a] pyrimidine-3-carboxylic acid ethyl ester derivatives as an antitubercular agents

Poojali P Warekar, Priyanka T Patil, Kirti T Patil, Dattatraya K Jamale, Govind B Kolekar, Prashant V Anbhule

Synthetic Communications 46 (2016)2022-2030.

87. Uncatalyzed four-component synthesis of pyrazolopyranopyrimidine derivatives and their antituberculosis activities

Kirti T Patil, Dattatrya K Jamale, Navnath J Valekar, Priyanka T Patil, Poojali P Warekar, Govind B Kolekar, Prashant V Anbhule

Synthetic Communications 47 (2017) 111-120.

86. Synthesis, biological evaluation and molecular docking studies of some novel indenospiro derivatives as anticancer agents

Ajinkya A Patravale, Anil H Gore, **Govind B Kolekar**, Madhukar B Deshmukh, Prafulla B Choudhari, Manish S Bhatia, Shivadatta Prabhu, Mahendra D Jamdhade, Milind S Patole, Prashant V Anbhule

Journal of the Taiwan Institute of Chemical Engineers 68(2016)105-118

85. Selective recognition of MnO 4- ion in aqueous solution based on fluorescence enhancement by surfactant capped naphthalene nanoparticles: Application to ultratrace determination of KMnO 4 in treated drinking water

Sonali B Suryawanshi, Prasad G Mahajan, Dhanaji P Bhopate, **Govind B Kolekar,** Shivajirao R Patil, Anita J Bodake

# Journal of Photochemistry and Photobiology A: Chemistry329(2016)255-261

84. CdS nanocrystals as fluorescent probe for detection of dolasetron mesylate in aqueous solution: Application to biomedical analysis

Samadhan P Pawar, Laxman S Walekar, Uttam R Kondekar, Dattatray B Gunjal,

Samadhan P Pawar, Laxman S Walekar, Uttam R Kondekar, Dattatray B Gunja Anil H Gore, Prashant V Anbhule, Shivajirao R Patil, Govind B Kolekar Journal of Pharmaceutical Analysis 6(2016) 410–416

#### 2015-16:

83. FRET Sensor for Erythrosine Dye Based on Organic Nanoparticles: Application to Analysis of Food Stuff

Prasad G Mahajan, Dhanaji P Bhopate, Govind B Kolekar, Shivajirao R Patil Journal of fluorescence 26 (2016) 1467–1478

82. Surfactant and Temperature Effects in Tyrosine/Pyridoxine Hydrochloride Systems

Umesh S. Mote, Prashant V.Anbhule, Govind B. Kolekar Journal of Surfactants and Detergents 19 (2016) 553-558.

81. Surfactant stabilized AgNPs as a colorimetric probe for simple and selective detection of hypochlorite anion (ClO-) in aqueous solution: Environmental sample analysis

Laxman S Walekar, Samadhan P Pawar, Anil H Gore, Vishwas D Suryawanshi, Santosh S Undare, Prashant V Anbhule, Shivajirao R Patil, Govind B Kolekar\* Colloids and Surfaces A: Physicochemical and Engineering Aspects 491(2016) 78-85

80. Synthesis, anti-inflammatory, ulcerogenic and cyclooxygenase activities of indenopyrimidine derivatives

Santosh S Undare, Navanath J Valekar, Ajinkya A Patravale, Dattatraya K Jamale, Sunil S Vibhute, Laxman S Walekar, **Govind B Kolekar**, MB Deshmukh, Prashant V Anbhule

Bioorganic & medicinal chemistry letters 26 (2016) 814-81.

79. Spectroscopic analysis on the binding interaction of biologically active pyrimidine derivative with bovine serum albumin

Vishwas D Suryawanshi, Laxman S Walekar, Anil H Gore, Prashant V Anbhule, Govind B Kolekar\*

Journal of Pharmaceutical Analysis 6 (2016)56-63.

78. N-methyl isatin nanoparticles as a novel probe for selective detection of Cd 2+ ion in aqueous medium based on chelation enhanced fluorescence and application to environmental sample

Prasad G Mahajan, Dhanaji P Bhopate, Govind B Kolekar, Shivajirao R Patil

# Sensors and Actuators B: Chemical 220,(2015) 864-872.

77. Polyvinyl pyrrolidone capped fluorescent anthracene nanoparticles for sensing fluorescein sodium in aqueous solution and analytical application for ophthalmic samples

Dhanaji P Bhopate, Prasad G Mahajan, Kalyanrao M Garadkar, **Govind B Kolekar**, Shivajirao R Patil

Luminescence 30 (2015), 1055-1063.

76. Sequence Selective Michael Addition for Synthesis of Indeno Pyridine and Indeno Pyran Derivatives in One Pot Reaction Using CuO Nanoparticles in Water Navanath J Valekar, Prasad P Patil, Anil H Gore, Govind B Kolekar, Madhukar B Deshmukh, Prashant V Anbhule

Journal of Heterocyclic Chemistry 52 (2015), 1669-1676.

75. Spectroscopic Investigation of Interaction Between Carbon Quantum Dots and D-Penicillamine Capped Gold Nanoparticles

Laxman S Walekar, Samadhan P Pawar, Uttam R Kondekar, Dattatray B Gunjal,

Prashant V Anbhule, Shivajirao R Patil, Govind B Kolekar\*

Journal of fluorescence 25 (2015), 1085-1093.

74. Turn-on fluorescence probe for selective and sensitive detection of d-penicillamine by CdS quantum dots in aqueous media: Application to pharmaceutical formulation

Samadhan P Pawar, Anil H Gore, Laxman S Walekar, Prashant V Anbhule, Shivajirao R Patil, **Govind B Kolekar**\*

Sensors and Actuators B 209 (2015) 911–918.

73. Preparation of trans-3-(9-Anthryl)-1—phenylpr0p-2-en-l-one (APPO)
Nanoparticles and its Characterization
Prasad G Mahajan, Dhanaji P. Bhopate, Avinash A. Kamble, Govind B. Kolekar,

Prasad G Mahajan, Dhanaji P. Bhopate, Avinash A. Kamble, **Govind B. Kolekar**, Shivajirao R Patil

International Journal of luminescence and Applications 5 (2015) 9-11.

72. Selective sensing of Fe 2+ ions in aqueous solution based on fluorescence quenching of SDS capped rubrene nanoparticles: application in pharmaceutical formulation

Prasad G Mahajan, Dhanaji P. Bhopate, Avinash A. Kamble, Dattatray K. Dalavi, Govind B. Kolekar, Shivajirao R Patil Analytical Methods 7 (2015), 7889-7898.

#### 2014-15

71. Contemporary development in sequential Knoevenagel, Michael addition multicomponent reaction for the synthesis of 4-Aryl-5-oxo-5H-indeno [1, 2-b] pyridine-3-carbonitrile

Ajinkya A Patravale, Anil H Gore, Dipti R Patil, **Govind B Kolekar**, Madhukar B Deshmukh, Prafulla B Choudhari, Manish S Bhatia, Prashant V Anbhule **Research on Chemical Intermediates**, (2015) 1-17.

70. TNPs as a novel fluorescent sensor for the selective recognition of fast green FCF: a spectrofluorimetric approach

Dattatray K Dalavi, Avinash Kamble, Dhanaji P Bhopate, Prasad G Mahajan, Govind B Kolekar, Shivajirao R Patil RSC Advances 5 (2015), 69371-69377.

69. 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

Dhanaji P Bhopate, Prasad G Mahajan, Kalyanrao M Garadkar, **Govind B Kolekar**, Shivajirao R Patil

New Journal of Chemistry 39 (2015), 7086-7096.

68. A Chalcone Based Novel Fluorescent Nanoprobe for Selective Detection of Al3+ Ion in Aqueous Medium

Prasad G Mahajan, Dhanaji P Bhopate, Govind B Kolekar, Shivajirao R Patil Journal of Luminescence 2 (2015) 1-13.

67. Preparation of trans-3-(9-Anthryl)-1-phenylprop-2-en-1-one (APPO) Nanoparticles and its Characterization Prasad G Mahajan, Dhanaji P Bhopate, Avinash A Kambale, Govind B Kolekar, Shivajirao R Patil

International Journal of Luminescence and Its applications 5 (2015) 9-11.

66. Ultrasensitive, highly specific, colorimetric recognition of sulfide ions [S 2–] in aqueous media: applications to environmental analysis

Uttam R Kondekar, Laxman S Walekar, Anil H Gore, Prashant V Anbhule, Sung H Han, Shivajirao R Patil, Govind B Kolekar\*

Analytical Methods 7 (2015), 2547-2553.

- 65. Cetyltrimethylammonium bromide capped 9-anthraldehyde nanoparticles for selective recognition of phosphate anion in aqueous solution based on fluorescence quenching and application for analysis of chloroquine *Prasad G Mahajan, Netaji K Desai, Dattatray K Dalavi, Dhanaji P Bhopate, Govind B Kolekar, Shivajirao R Patil Journal of fluorescence 25(2015) 31-38.*
- 64. An Efficient and Modified Biginelli-Type Synthesis of 3, 4-Dihydro-1H-indeno [1, 2-d] pyrimidine-2, 5-dione Using Phosphorous Pentoxide *Poojali P Warekar*, *Govind B Kolekar*, *Madhukar B Deshmukh*, *Prashant V Anbhule Synthetic Communications* 44 (2014) 3594-3601.

63. Comparative Spectroscopic Studies on Binding Interaction of Theophylline with Human Hemoglobin: Mechanistic and Conformational Investigations Minakshi V Patil, Anil H Gore, Sang H Lee, Prashant V Anbhule, Shivajirao R Patil, Govind B Kolekar The International Journal of Science and Technoledge 2 (2014) 202.

62. Uncatalyzed synthesis of furo (2, 3-d) pyrimidine-2, 4 (1H, 3H)-diones in water and their antimicrobial activity

Prakash P. Sambavekara, Mayur M. Aitawadea, **Govind B. Kolekar**, Madhukar B. Deshmukhb, Prashant V. Anbhule

Indian Journal of Chemistry 53(2014) 1454-1461.

61. Trouble-Free Multicomponent Method for Combinatorial Synthesis of 2-Amino-4-phenyl-5-H-indeno [1, 2-d] pyrimidine-5-one and Their Screening against Cancer Cell Lines.

Ajinkya A Patravale, Anil H Gore, Dipti R Patil, **Govind B Kolekar**, Madhukar B Deshmukh, Prashant V Anbhule

Industrial & Engineering Chemistry Research 53 (2014), 16568-16578.

### 2013-14:

60. Study of energy transfer between riboflavin (vitamin B2) and AgNPs. Vidya V Mokashi, Laxman S Walekar, Prashant V Anbhule, Sang Hak Lee, Shivajirao R Patil, Govind B Kolekar\*

Journal of nanoparticle research 16 (2014), 1-11.

59. Pyrene nanoparticles as a novel FRET probe for detection of rhodamine 6G: spectroscopic ruler for textile effluent.

Dhanaji P Bhopate, Prasad G Mahajan, Kalyanrao M Garadkar, **Govind B Kolekar**, Shivajirao R Patil **RSC Advances 4 (2014) 63866-63874.** 

ASC Auvances 4 (2014) 03000-03074.

- 58. Ultrasensitive, highly selective and naked eye colorimetric recognition of D-penicillamine in aqueous media by CTAB capped AgNPs: applications to pharmaceutical and biomedical analysis

  Laxman S. Walekar, Uttam R. Kondekar, Anil H. Gore, Samadhan P. Pawar, V. Sudarsan, Prashant V. Anbhule, Shivajirao R. Patil, Govind B. Kolekar\* RSC Advances 4 (2014) 58481-58488.
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- 52. Cetyltrimethylammonium bromide stabilized Perylene nanoparticles for fluorimetric estimation of bicarbonate (HCO3–) anion: spectroscopic approach. *Dhanaji P. Bhopate*, *Govind B. Kolekar*, *Kalyanrao M. Garadkar*, *Shivajirao R. Patil*

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- 45. In-silico, in-vitro antibacterial activity and toxicity profile of new quinolines derivatives.

  Prakash P. Sambavekar, Mayur M. Aitawade, Dipti. R. Patil, Govind. B. Kolekar, Madhukar B. Deshmukh, Prashant V. Anbhule

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- 11. Fluorescence Resonance Energy Transfer Between Perylene and Riboflavin in micellar solution and Analytical application on determination of Vitamin B2. Swaminathan L. Bhattar, Govind B. Kolekar and Shivajorao R. Patil Journal of Luminescence 128 (2008) 306–310.
- 10. Photoinduced intermolecular electron transfer from aromatic amines to 9-methylanthracene in Sodium dodecyl sulfate micellar solutions. Shivajorao R. Patil, Govind B. Kolekar and Mahadev S. Khot Physical Chemistry: An Indian Journal 3 (2008) 1–7.
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2006-07:

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2001-02:

7. Solvent Extraction ,Separation and Spectrophotometric determination of Antimony (III) with 1-(4'-bromophenyl)-4,4,6- trimethyl (lH,4H)-pyrimidine-2-thiol: Analysis of synthetic mixtures and alloys.

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- 3. Extraction, separation and Spectrophotometric determination of Bismuth (III)using1-(4'-bromophenyl)-4,4,6-trimethy(lH, 4H)-pyrimidine-2-thiol. *Govind B. Kolekar*, *Tukaram N. Lokhande*, *Popatrao N. Bhosale and Mansing A. Anuse. Analytical Letters 31 (13) (1998) 2241–2254.*
- 2. Extractive Spectrophotometric determination of Thallium (I) with pyrimidine-2-thiol.

Govind B. Kolekar, Tukaram N. Lokhande, and Mansing A. Anuse. Research Journal of Chemistry and Environment 2(4) (1998)17–21.

1. Solvent Extraction and Spectrophotometric determination of Rhenium(VII) with 1-(4'-bromophenyl)-4,4,6trimethyl-(lH,4H)-2-pyrimidinethiol:Analysis of alloys.

Govind B. Kolekar, and MansingA. Anuse

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### Conferences/Seminars/Symposia Attended/Presented:

National : 35 International : 11

- 46 Bright emissive nitrogen doped carbon dots as a fluorescent probe for selective and sensitive recognition of permanganate ions
  - National Conference on Recent Trends in Chemistry and Material Science (RTCMS- 2019), Feb. 09, 2019, Department of Chemistry, Shivaji University, Kolhapur
- 45 Quick and low cost synthesis of sulphur doped carbon dots by simple acidic carbonization of sucrose for the detection of Fe<sup>3+</sup> ions in highly acidic environment, International Conference (ICACS) during Feb. 2018

  Department of Chemistry, Shivaji University, Kolhapur
- 44 Carbon Dot Based Dual Probe for the Selective Detection of D-Penicillamine National Conference on Innovative Research in Chemical Sciences (IRCS) during 1st & 2nd Feb. 2017, Department of Chemistry, Shivaji University, Kolhapur

- 43 CdS nanocrystals as fluorescent probe for detection of dolasetron mesylate in aqueous solution: Application to biomedical analysis International Conference on Challenges and opportunities before 21st century India Rajashree Chhatrapati Shahu college Kolhapur during 6 & 7 Feb. 2016
- 42 Turn-on fluorescence probe for selective and sensitive detection of d-penicillamine by CdS quantum dots in aqueous media: Application to pharmaceutical formulation International Conference on Green Chemistry: Catalysis, Energy and Environment (ICGC)-2015 Department of Chemistry, Goa University Goa during 22 to 24 Jan. 2015
- 41 Studies on photophysical behaviour of anionic dye on the surface of silver nanoparticles: spectroscopic and mechanistic insights National Seminar on Current Research on Chemical Sciences CRCS-2013, Department of Chemistry, Shivaji University, Kolhapur during 22nd& 23rd Jan. 2013
- 40 A spectral elucidation of the perturbation of model transporter protein (HSA) by antibacterial pyrimidine derivative: Pharmacokinetic and biophysical insights National Seminar on Current Research on Chemical Sciences CRCS-2013, Department of Chemistry, Shivaji University, Kolhapur during 22nd& 23rd Jan. 2013
- 39 A fluorescence spectroscopic study on effect of solvents on photophysical properties of 7-diethyamino 4-methylcoumarin National Seminar on Current Research on Chemical Sciences CRCS-2013 Department of Chemistry, Shivaji University, Kolhapur during 22nd& 23rd Jan. 2013
- 38 Insecticidal efficacy of new tri-substituted quinolines against mosquito, Anopheles stephensi and aphid, Myzus persicae State level Seminar on Changing Agriculture Land Use Pattern in Maharashtra Dr. Patangrao Kadam Mahavidyalaya, Sangli on 8th Sept. 2012
- 37 Preperation and characterization of anthracene doped p-terphenyl for scintillation International conference on luminescence & its applications, ICLA-2012 IICT Hyderabad 7th-10th Feb.2012
- 36 Studies on Photo physics of exciplexces in excited 9-nitro-anthrtacene and N, N-diethyl aniline National Seminar on Recent Advances in Synthetic Chemistry & Nanomaterials, (RASCN-2012) Department of Chemistry, Shivaji University, Kolhapur during 21st& 22nd Jan. 2012
- 35 Evaluation of interparticle interaction between colloidal silver nanoparticles coated with trisodium citrate and safranine by using FRET: Spectroscopic & Mechanistic approach, National Seminar on Recent Advances in Synthetic Chemistry & Nanomaterials (RASCN-2012)Department of Chemistry, Shivaji University, Kolhapur during 21st& 22nd Jan. 2012

- 34 CdS QDs as a colorimetric probe for selective detection of Cobalt (II) ion in aqueous solution National Seminar on Recent Advances in Synthetic Chemistry & Nanomaterials (RASCN-2012), Department of Chemistry, Shivaji University, Kolhapur during 21st& 22nd Jan. 2012
- 33 A Spectral Deciphering the Perturbation of Human Serum Albumin by antibacterial,2-amino-6-hydroxy-4-(4-hydroxyphenyl)-pyrimidine-5-carbonitrile: Insights From Spectroscopic Investigations DAE-BRNS, 11th Biennial, Trombay Symposium on Radiation & Photochemistry (TSRP-2012) BARC, Mumbai, 4th 7th January 2012
- 32 Micellar mediated binding interaction between Proflavine hemisulphate and Salicylic acid: Spectroscopic insights and its analytical application DAE-BRNS 11th Biennial, Trombay Symposium on Radiation & Photochemistry (TSRP-2012), BARC, Mumbai, 4th -7th January 2012
- 31 Sensitive & Selective Determination of Ranitidine Hydrochloride in Aqueous Solution by CdS QDs as a Fluorescent Probe, VIth Maharashtra State, Inter-University Research Convention, Avishkar 2011-12, Shivaji University, Kolhapur during 13th to 15th Jan. 2012
- 30 Sensitive & Selective Determination of Ranitidine Hydrochloride in Aqueous Solution by CdS QDs as a Fluorescent Probe, Avishkar 2011-12, University level, Department of Chemistry, Shivaji University, Kolhapur during 15th Dec.2011
- 29 Sensitive & Selective Determination of Ranitidine Hydrochloride in Aqueous Solution by CdS QDs as a Fluorescent Probe, Avishkar 2011-12, District level, Department of Chemistry, Shivaji University, Kolhapur during 23rd Nov. 2011
- 21 Interaction between colloidal Ag Nanoparticles coated with trisodium citrate and Safranine by using FRET: National Seminar On Advanced Spectral Methods of Analysis (NS-ASMA-2011), K. B. P. College, Pandharpur on 16th & 17<sup>th</sup> Dec. 2011
- 28 Synthesis and Biological Activity of Some New Thiazolo Pyrimidine Derivatives National Conference on Research in Chemical Sciences, Milliya Arts, Science and Management Science College, Beed during 1st -2nd Feb. 2011
- 27 Synthesis & solvatochromic behaviour of 2-amino-6-hydroxy-4-(3,4-dimethoxy phenyl)-pyrimidine-5-carbonitrile in various solvents Professor Ram Chand Paul International Conference on Emerging trends in Chemistry (CPIC-2011), Panjab University, Chandigarh, Panjab during 11th& 12th Feb.2011

- 26 A novel method for ranitidine hydrochloride determination in aqueous solution based on fluorescence quenching of functionalised CdS QDs through photoinduced charge transfer process: Spectroscopic approach, Professor Ram Chand Paul International Conference on Emerging trends in Chemistry (CPIC-2011), Panjab University, Chandigarh, Panjab during 11th& 12th Feb.2011
- 25 Evaluation of interparticle interaction between colloidal silver nanoparticles coated with trisodium citrate and safranine by using FRET: Spectroscopic & Mechanistic approach, Emerging trends in Applications of Laser and accelerator in nanomaterial, (ETALAN-2011) BARC, Mumbai, 20th& 21st Oct. 2011
- 24 Synthesis, characterization and photophysical interaction of silver nanoparticles with safranine, Advanced synthetic Methodologies and New Materials (ASMNM), Department of Chemistry, Shivaji University, Kolhapur during 21st& 22nd Jan. 2011
- 23 Fluorescence resonance energy transfer from salicylic acid to acriflavine in aqueous micellar environment, Advanced synthetic Methodologies and New Materials (ASMNM), Department of Chemistry, Shivaji University, Kolhapur during 21st& 22nd Jan. 2011
- 22 Validated enantioselective high performance liquid chromatographic method for analysis of S-Etodolac using acid glycoprotein chiral phase, Advanced synthetic Methodologies and New Materials (ASMNM), Department of Chemistry, Shivaji University, Kolhapur during 21<sup>st</sup> & 22<sup>nd</sup> Jan. 2011
- 21 Sensitization of Perylene fluorescence by pyrene in polymer thin films, Advanced synthetic Methodologies and New Materials (ASMNM) Department of Chemistry, Shivaji University, Kolhapur during 21st& 22nd Jan. 2011
- 20 Interaction between Bovine Serum albumin and Mefloquine: Fluorescence quenching study, DAE-BRNS 3rd International Symposium on Materials Chemistry
- (ISMC-2010) BARC, Mumbai 7th-11th Dec. 2010
- 19 Spectroscopic studies on the Molecular Interaction between Salicylic Acid and Riboflavin (B2) in micellar solution, National conference on luminescence and its applications Gandhigram Rural Institute Gandhigram Tamilnadu during 9th 11th Feb.2010
- 18 Interaction Between Bovine Serum albumin and Mefloquine: Fluorescence quenching study, National conference on luminescence and its applications, Gandhigram Rural Institute Gandhigram Tamilnadu during 9th -11th Feb.2010

- 17 Fluorescence spectroscopic studies on interaction between carprofen and triton X-100 micelle National conference on luminescence and its applications, Gandhigram Rural Institute Gandhigram Tamilnadu during 9th -11th Feb.2010
- 16 Spectrofluorimetric Determination of 5-Fluorouracil by Fluorescence Quenching of 9-Anthracenecarboxylic Acid, Advanced synthetic Methodologies and Functional Materials (ASMFM), Department of Chemistry, Shivaji University, Kolhapur during 23rd& 24th Dec. 2009
- 15 Spectrofluorimetric Studies on Interaction between Quinine sulphate and Riboflavin, Advanced synthetic Methodologies and Functional Materials (ASMFM), Department of Chemistry, Shivaji University, Kolhapur during 23rd& 24th Dec. 2009
- 14 Determination of Heparin Using Norfloxacin-cerium Complex as a Fluorescence Probe by Spectrofluorimetry Advanced synthetic Methodologies and Functional Materials (ASMFM) Department of Chemistry, Shivaji University, Kolhapur during 23rd& 24th Dec. 2009
- 13 A photophysical study of anti-inflammatory drug: Validated Stability Indicating LC Method for Carprofen, Advanced synthetic Methodologies and Functional Materials (ASMFM), Department of Chemistry, Shivaji University, Kolhapur during 23rd& 24th Dec. 2009
- 12 Fluorescence resonance energy transfer between felodipine and fluorescein & application, Advanced synthetic Methodologies and Functional Materials (ASMFM), Department of Chemistry, Shivaji University, Kolhapur during 23rd& 24th Dec. 2009
- 11 Fluorescence resonance energy transfer from proflavine hemisulphate to rose bengal in aqueous micellar solution, Advanced synthetic Methodologies and Functional Materials (ASMFM) Department of Chemistry, Shivaji University, Kolhapur during 23rd& 24<sup>th</sup> Dec. 2009
- 10 Fluorescence probe study of the interaction between pyrene and oil in water micro emulsion. International conference on Nanomaterials & Applications (ICNAMA-2008) Dept. of Chemistry & Dept. of Physics Shivaji University, Kolhapur during 9th-11th Dec. 2008
- 9 Spectroscopic studies on the interaction between norfloxacin and p-Amino benzoic acid: analytical application on determination of Norfloxacin Synthesis of new Materials for Industrial Applications Department of Chemistry, Shivaji University, Kolhapur during 1st-2nd February 2008
- 8 Study of the effect of polar dopants on structure of emission spectrum of crystalline anthracene powder Synthesis of new Materials for Industrial

- Applications Department of Chemistry, Shivaji University, Kolhapur during 1st-2nd February 2008
- 7 Synthesis and fluorescence studies on 5-Ethoxycarbonyl-4-cinnamyl-6-methyl-3,4-dihydropyrimidine-2(1h)-one in various solvents. Synthesis of new Materials for Industrial Applications, *Department of Chemistry, Shivaji University, Kolhapur during 1st-2nd February 2008*
- 6 Fluorescence Resonance Energy Transfer Between Perylene and Riboflavin in micellar solution and Analytical application on determination of Vitamin B2. International Symposium on Material Chemistry, organized *at BARC, Mumbai, December 4-8, 2006.*
- 5 Photo-induced proton transfer studies of salicylic acid doped in polymer films.8th Biennual, Trombay Symposium on Radiation & Photochemistry, organized at BARC, Mumbai, January 5-9, 2006.
- 4 Extraction, Separation and Spectrophotometric Determination of Bismuth (III) using 1-(4-bromophenyl)4,4,6-trimethyl (1H,4H)- pyrmidinethiol, 35<sup>th</sup> Annual Convention of Chemistry, *Karnataka University*, *Dharwad (INDIA)*, 4-7 Nov. 1998
- 3 Extractive Spectrophotometric Determination of Selenium (IV) using pryimidine-2 thiol from alloys and pharmaceutical samples. 16th Conference, Indian Council of Chemists, *Mangalore University*, *Mangalgangotri*,(INDIA) 29-31 Dec. 1997.
- 2. Solvent Extraction and Spectrophotometric Determination of Osmium (VIII) with Pyrimidinethiol. 15th Conference, Indian Council of Chemists. *Dr. B.A. Maratha Wada. University, Aurangabad (INDIA)*, 24-26th October, 1996.
- 1. Pyrimidinethiol as a new reagent for Extractive Spectrophotometric Determination of Rhenium (VII) National conference on Applications of Solvent Extraction in Chemistry and Industry *Shivaji University, Kolhapur (INDIA) 6th-8th March*, 1996

### **Research Project Completed:**

- 4 Nanomaterials as analytical probes for sensing applications, UGC, New Delhi, 10,88,800/-, April-2013 to June-2017 (3 + 1 year Ext.)
- 3 Synthesis, characterization and fluorescence study of metal nanoparticles, DAE-BRNS Mumbai, 22,14,000/-, April-2011 to March-2014, (3 years)
- 2 A Novel fluorescence studies on energy transfer between aromatic hydrocarbons in micellar solution and its analytical applications, UGC New Delhi, 5, 23,977/-, 3 years, April-2007 to March-2010

1 Impact of heavy fertilizers on well and tube well water in Malshiras Tahasil: A case study, UGC WRO, Pune, 48,000/-, April-2004 to March 2006 (2 years)

# Membership / Other Charge:

# I. Association with Professional bodies:

- 1 Life Member-Indian Council of Chemists (ICC), Agra (INDIA)
- 2 Life Member Luminescence Society of India.
- 3 Life Member- Indian Society for Radiation and Photochemical Sciences.
- 4 Life Member-Pradhyapak Vishwa
- 5 Life Member- Teachers Movement
- 6 RSC e-member
- II. Reviewer: Worked as a potential reviewer for the International journal like
- 1 Talanta
- 2 Journal of Photochemistry and Photobiology B: Biology
- 3 ACS Applied Materials & Interfaces
- 4 Spectrochimica Acta Part A
- 5 Journal of Solution chemistry
- 6 Journal of Luminescence
- 7 Luminescence
- 8 Analytical letters
- 9 Journal of Fluorescence
- 10 RSC Advances
- 11 Sensors and Actuators: B Chemical
- 12 ACS Omega

### III. Extension Activities:

- 14. **Organizing Secretary**, UGC-SAP National seminar on Synthesis of New Materials for Industrial Applications, Shivaji University, Kolhapur on 1st and 2nd February, 2009
- 13. **Treasurer**, International conference on Nanomaterials and Applications (ICNAMA-2008), Shivaji University, Kolhapur
- 12. **Member**, University Meritorious Scholarship Scrutiny, Department of Chemistry, Shivaji University, Kolhapur 2009-10
- 11. **Member**, Special Cell Standing Committee 2012-2016, Shivaji University, Kolhapur 15th July 2010
- 10. **In-charge/Chairman**, National Science Day-2011, Department of Chemistry, Shivaji University, Kolhapur
- 9. **Member**, 49th Annual Report 2011-12, Shivaji University, Kolhapur 2011-12

- 8. **Convener**, National Conference on CRCS-2013, Department of Chemistry, Shivaji University, Kolhapur during 22<sup>nd</sup> & 23<sup>rd</sup> Jan. 2013
- 7. **Examiner**, Practical/Theory Examinations of Various Universities such as Kuvempu University, Shimoga, Karnataka, Solapur University, Solapur, Maharashtra
- 6. **Co-ordinator**, BOS in Agro Chemical and Pest Management 2016, Shivaji University, Kolhapur
- 5. Member, Antiragging Squad Committee 2012-16, Shivaji University, Kolhapur
- 4. **Active participant,** 'Street Security Abhiyan' Organized by RTO and NSS, 2011
- 3. **Team Manager** Avishkar-2010, Shivaji University, Kolhapur
- 2. **Chairman**, Physical Chemistry Examination (2011-2014), Shivaji University, Kolhapur
- 1. **Organizing Chairman**, Blood Donation Camp under NSS activity (2013), Shivaji University, Kolhapur

Place: Kolhapur (Dr. G. B. Kolekar)