



Karnatak University's,
KARNATAK SCIENCE COLLEGE, DHARWAD

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Research Activities 2020-21

3.1.1 Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/Co- investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non- Government)
Physioco- Chemical and Meshanical p-roperties of ternary blend ffilms for food packeging applications	Dr.(Smt.) Sarswati Masti	Chemistry	2016	41,92,144	4 years	SERB, New Delhi	Government of India
Integrated Hydrogeological studies of Lingasugur taluk Raichur district, Karantaka	Dr.Manjunath S	Geology	2018	23,10,000	3 years	SERB, New Delhi	Government of India

3.3.2 Number of research papers per teachers in the Journals notified on UGC website during the year

Title of paper	Name of the author/s	Department of the teacher	Name of journal	ISSN number	Link to the recognition in UGC enlistment of the Journal
Preparation and humidity sensing behaviour of cadmium – zinc ferrite nanocomposite	Dr. Blaise Lobo	Physics	Journal of Physics: Conference Series		Online: 1742-659 Print : 1742-6588
Microstructural features, spectroscopic study and thermal analysis of potassium permanganate filled PVA-PVP blend films	Dr. Blaise Lobo	Physics	Journal of Physics – Condensed Matter		Online: 1361-648X Print: 0953-8984
Linear and non-linear optical parameters of polycarbonate reinforced inorganic bismuth nitrate pentahydrate	Dr. Blaise Lobo	Physics	Optical Materials	0925-347	WWW.elsevier.com/locate/optimat
AC and DC electrical studies on cobalt chloride doped PVA-PVP films	Dr. Blaise Lobo	Physics	AIP Conference Proceedings	1551-7616	https://doi.org/10.1063/5.0009039
Preparation and experimental investigations of the spectroscopic, thermal and microstructural properties of polycarbonate filled with bismuth oxychloride	Dr. Blaise Lobo	Physics	AIP Conference Proceedings	1551-7616	https://doi.org/10.1063/5.0009038
Rapid mass propagation of endangered valuable medicinal plant Salacia chinensis L. and GCMS/LC-MS analysis of active compounds produced in callus and leaf extract	Dr. C. G. Patil	Botany	Sri Lankan Journal of Biology		DOI- http://doi.org/10.4038/sl.jb.v6i2.80 http://orcid.org/0000-0003-0110-5819

Diversity of Pteridophytes in Nipani Taluk, Karnataka, India	Dr. Doris Singh	Botany	International Journal of Plant and Environment,	ISSN: 2454-1117 (Print), 2455-202X (Online)	DOI: 10.18811/ijpen.v7i01.12
Synthesis, spectroscopic properties and DFT correlative studies of 3,3'-carbonyl biscoumarin derivatives	Dr. G. H. Malimath	Physics	Journal of Molecular Structure		WWW.elsevier.com/locate/mostr
A highly Selective and sensitive tiophene substituted 1,3,4-oxadiazole based turn-off fluorescence chemosensor for Fe ²⁺ and turn on fluorescence turn-on chemosensors for Ni ²⁺ and Cu ²⁺ detection	Dr. G. H. Malimath	Physics	Material Chemistry and Physics		WWW.elsevier.com/locate/matchemphys
Electronic Exitation Energy transfer studies in binary mixtures of novel optoelectronically active 1,3,4-oxadiazoles and coumarin derivatives	Dr. G. H. Malimath	Physics	Chemical Physis Letters		WWW.elsevier.com/locate/cplett
Synthesis, Characterization, photo physical and DFT studies of bicoumarin and 3-(3-benzofuranyl) coumarin derivatives	Dr. G. H. Malimath	Physics	Chemical Data Collections		WWW.elsevier.com/locate/cdc

A comprehensive studies on photophysical and electrochemical properties of Novel D- π -A thiophene substituted 1,3,4-oxadiazole derivatives for optoelectronic applications: A computational and experimental approach	Dr. G. H. Malimath	Physics	Chemical Physics		WWW.elsevier.com/locate/chemphys
Photophysical studies on D- π -A Imidazole Derivatives for Organic Dye Sensitized Solar Cell Application	Dr. G. H. Malimath	Physics	Asian Journal of Chemistry		http://doi.org/10.41233/ajchem.2020.22852
Synthesis and Photophysical Properties of Multi-Functional BisimidazolylPhenol Zinc (II) Complex: Application in OLED ,Anti-Counterfeiting and Latent Finger Print Detection	Dr. G. H. Malimath	Physics	Chemistry Select		http://doi.org/10.1002/slet.202100353
Design of new Imidazole-derivative dye having doner - II-acceptor moities for highly efficient organic-dye-sensitized solar cells	Dr. G. H. Malimath	Physics	Optik		http://doi.org/10.1016/J.ijleo.2019.164074
Study on water quality suitability for irrigation in western part of Sandur schist belt, Bellary District, Karnataka, India	Dr. J. T. Gudagur	Geology	Journal of Idian University	1001-2400	
Study of drainage Characteristics and its implications for Watershed management- A case study of Dharma River basin, Karnataka State, India	Dr. J. T. Gudagur	Geology	International Journal of Ecology and Enviromental Sciences	2320-5199	

<i>Senna italica</i> Mill. Subsp. <i>Italica</i> (Fabaceae; Caesalpinioideae): An Overlooked species from Karnataka State, India	Dr. K. Kotresha	Botany	India Forester	ISSN: 0019-4816	
Alien Flora of Ballari District, Karnataka, India	Dr. K. Kotresha	Botany	International Journal of Trend in Scientific Research and Development (IJTSRD)	ISSN: 2456 – 6470	http://creativecommons.org/licenses/by/4.0
Medicinal Plants of Yadahalli Chinkara Wildlife Sanctuary,	Dr. K. Kotresha	Botany	GORTERIA JOURNAL	ISSN: 0017-2294	
Wild Edible Fruits and their Medicinal Uses in Ballari district of Karnataka.	Dr. K. Kotresha	Botany	PENSEE	ISSN: 0031-4773	
Trees of Yadahalli Chinkara Wildlife Sanctuary, Bagalkot, Karnataka,	Dr. K. Kotresha	Botany	PLANT SCIENCE TODAY, 2021	ISSN 2348-1900 (online)	https://doi.org/10.14719/pst.2021.8.4.1278
WILD EDIBLE FRUITS AND VEGETABLES OF YADAHALLI CHINKARA WILDLIFE SANCTUARY, BAGALKOT, KARNATAKA, INDIA	Dr. K. Kotresha	Botany	Journal of Global Biosciences	ISSN 2320-1355	www.mutagens.co.in/jgb/vol.10/09/100904.pdf
Recent updates on the role of herbal medicine for Alzheimer's disease (Dementia)	Dr. K. Kolkar	Botany	International Journal of Current Research in Biosciences and Plant Biology	ISSN: 2349-8080	www.ijcrbp.com
Role of Botanical essential oils as a therapy for controlling coronavirus (SARS-CoV-2) disease (Covid-19)	Dr. K. Kolkar	Botany	International Journal of Research and Scientific Innovation	ISSN: 2321-2705	http://dx.doi.org/10.51244/URSI2021.8407

Melatonin: One molecule one-medicine for many disease, coronavirus (SARS-CoV-2) disease (Covid-19): Function in plants	Dr. K. Kolkar	Botany	International Journal of Research and Scientific Innovation	ISSN: 2321-2705	www.rsisinternational.org
Ervatamia Coronaria Seed Oil for Biodiesel Production: An Investigative Approach Via Fatty Acid Chemistry	Dr. Kariyappa S. Katagi	Chemistry	International Research Journal of Engineering and Technology (IRJET)	E-ISSN: 2395-0056	
Understanding the binding interaction between phenyl boronic acid P1 and sugars: determination of association and dissociation constants using S–V plots, steady-state spectroscopic methods and molecular docking	Dr. Kariyappa S. Katagi	Chemistry	Luminescence A Journal of Biological and Chemical Luminescence Wiley	1522-7243	
Liquid fuel synthesis from Leonotis nepetifolia seeds through in-situ transesterification method	Dr. Kariyappa S. Katagi	Chemistry	Energy Sources, Part A: Recovery, Utilization, And Environmental Effects Taylor & Francis	1556-7036	
Design, Synthesis, Molecular Docking, Anti-proliferative and Anti-TB studies of 2H-chromen-8-azaspiro[4.5]decane-7,9-dione conjugates	Dr. Kariyappa S. Katagi	Chemistry	Journal of Molecular Structure	0022-2860	

Quantum chemical computations, fluorescence spectral features and molecular docking of two biologically active heterocyclic class of compounds	Dr. Kariyappa S. Katagi	Chemistry	Journal of Photochemistry & Photobiology, A: Chemistry	1010-6030	
Seasonal variations of Zooplankton population in Karadigudda pond of Dharwad Taluk, Karnataka, India	Dr. (Smt.) Nayak, M.S.	Zoology	Strad Research	0039-2049	http://stradresearch.org/
Role of Substituent Position in Coumarin Derivatives during their Interaction with TiO ₂ Nano Particles	Dr. (Smt.) Nirupama M. Jagadeeshwar,	Physics	Journal of Fluorescence		Impact Factor : 2.1
STUDIES ON TOXICOLOGICAL ENDPOINTS OF FENOXAPROP-P-ETHYL ON BEHAVIORAL CHANGES IN FRESHWATER EXOTIC CARP <i>CYPRINUS CARPIO</i> (LINNAEUS)	Dr. (Smt.) Sankal R. D.	Zoology	Journal of Advanced Scientific Research	0976-9595	UGC care list
Synthesis and Molecular Modeling Studies of Coumarin and 1-Aza-coumarin –Linked Miconazole Analogues and Their Antimicrobial Properties.	Dr. Rajesh G. Kalkhambkar	Chemistry	Chemistry-select	2365-6549	

Facile one-pot synthetic access to libraries of diversely substituted 3-aryl(Alkyl)-coumarins using ionic liquid (IL) or conventional base/solvent, and an IL-mediated approach to novel coumarin-bearing diaryl-ethynes	Dr. Rajesh G. Kalkhambkar	Chemistry	<i>Tetrahedron Letters</i>	0040-4039	
Ionic liquid-mediated benzoyl transfer-coupling in the Suzuki and Sonogashira reactions and aryl transfer-coupling by decarbonylative Heck reaction, using N-Benzoyl-saccharin (NBSac) as reagent	Dr. Rajesh G. Kalkhambkar	Chemistry	<i>Tetrahedron Letters</i>	0040-4039	
Synthesis, molecular modelling studies and antimicrobial activity of Coumarin and 1-Azacoumarin linked 1,2,3-Triazole	Dr. Rajesh G. Kalkhambkar	Chemistry	Chemical data collections	2405-8300	
Ionic liquid catalyzed Ritter reaction/Pd-catalyzed directed Ortho-arylation; facile access to diverse libraries of biaryl-amides from Aryl-nitriles	Dr. Rajesh G. Kalkhambkar	Chemistry	<i>Tetrahedron Letters</i>	0040-4039	

Palladium Catalyzed Electrophilic C2-Arylation of Azoles by Aryltriazenes in Ionic liquid Promoted by Acidic Ionic Liquid	Dr. Rajesh G. Kalkhambkar	Chemistry	Chemistry-select	2365-6549	
Copper-catalyzed coupling of aryl-ethynes and aryltriazenes to access libraries of 1,2-diketones and their efficacy in synthesis of triaryloxazoles, imidazoles and diaryl-diazepines	Dr. Rajesh G. Kalkhambkar	Chemistry	Chemistry-select	2365-6549	
Ultrasonic Assisted Facile Synthesis of <i>N</i> -Arylamides Using Nitriles and 1-Aryltriazenes Precursors Promoted by Brønsted Acidic Ionic Liquid under Metal-Free Conditions	Dr. Rajesh G. Kalkhambkar	Chemistry	Chemistry-select	2365-6549	
Facile Synthesis of Libraries of Functionalized Cyclopropanes and Oxiranes Using Ionic Liquids - A New Approach to the Classical Corey-Chaykovsky Reaction	Dr. Rajesh G. Kalkhambkar	Chemistry	<i>Tetrahedron Letters</i>	0040-4039	
“Influence of furfuraldehyde derivatives as corrosion inhibition of mild steel in hydrochloric acid solution”	Dr. S. K. Rajappa	Chemistry	J. Mater. Environ. Sci., 2020 (11) 1626-1641	2028-2508	

“Investigation of Dolichandra unguis-cati leaves extract as a corrosion inhibitor for mild steel in acid medium”	Dr. S. K. Rajappa	Chemistry	Current Research in Green and Sustainable Chemistry 4 (2021) 100113	2666-0865	
“Corrosion inhibition effect of <i>Cycas revoluta</i> leaves extract on corrosion of soft-cast steel in hydrochloric acid medium”	Dr. S. K. Rajappa	Chemistry	<i>Electrochem Sci Adv.</i> 2021, e2100059	2698-5977	
“Corrosion protection of soft-cast steel in 1M HCl with <i>Araucaria heterophylla</i> leaves extract”	Dr. S. K. Rajappa	Chemistry	<i>Electrochem Sci Adv.</i> 2021, e2100080	2698-5977	
Dielectric relaxation and ion transport study of NaCMC:NaNO ₃ solid polymer electrolyte films	Dr. (Smt.) Saraswati Masti	Chemistry	Ionics		http://doi.org/10.1007/s11581-021-04023-y
UV screening, swelling and in-vitro cytotoxicity study of novel chitosan/poly (1-vinylpyrrolidone-co-vinyl acetate) blend films	Dr. (Smt.) Saraswati Masti	Chemistry	Chemical Data Collections	2405-8300	www.elsevier.com/locate/cdc
Physicochemical and Antibacterial Evaluation of Poly (Vinyl Alcohol)/Guar Gum/Silver Nanocomposite Films for food packing Applications	Dr. (Smt.) Saraswati Masti	Chemistry	Journal of Polymer and the Environment		http://doi.org/10.1007/s10924-021-02123-4
ZnONPs Doped PVA/ <i>Spathodea campanulata</i> Thin Films for food packing	Dr. (Smt.) Saraswati Masti	Chemistry	Journal of Polymer and the Environment		http://doi.org/10.1007/s10924-021-02070-0
Miscibility and Thermal Study of 4-Hydroxycoumarin Doped Chitosan Films	Dr. (Smt.) Saraswati Masti	Chemistry	American Journal of Pharma Tech Research	ISSN: 2249-3387	http://aiptr.com

Hydroxy Citric acid cross-linked chitosan/guar gum/poly (vinyl alcohol) active films for food packing applications	Dr. (Smt.) Saraswati Masti	Chemistry	International Journal of Biological Macromolecules	http://www.elsevier.com/locate/ijbiomac
Physico-Chemical and functional properties of rutine induced chitosan/poly(vinyl alcohol) bioactive films for food packing application	Dr. (Smt.) Saraswati Masti	Chemistry	Food Hydrocollides	http://www.elsevier.com/locate/foodhyd
Physiochemical and Biological Evaluation of Different Extracts of Edible Solanum nigrum L. Leaves Incorporated Chitosan/Poly (Vinyl Alcohol) Composite Films	Dr. (Smt.) Saraswati Masti	Chemistry	Journal of Polymer and the Environment	http://doi.org/10.1007/s10924-020-01832-6
Preparation, Characterization and antimicrobial activity of betel-leaf-extract-doped polysaccharide blend films	Dr. (Smt.) Saraswati Masti	Chemistry	Green Materials	http://doi.org/10-1680/grma.20.00014
Mechanical, optical and antioxidant properties of 7-Hydroxy-4-methyl coumarin doped polyvinyl alcohol/oxidized maize starch blend films	Dr. (Smt.) Saraswati Masti	Chemistry	SN Applied Sciences	http://doi.org/10.1007/s42452-020-03399-2

