



॥ विद्या विनयेन शोभते ॥

Janardan Bhagat Shikshan Prasarak Sanstha's

**CHANGU KANA THAKUR**

**ARTS, COMMERCE AND SCIENCE COLLEGE, NEW PANVEL  
(AUTONOMOUS)**

Re-accredited 'A+' Grade by NAAC (3<sup>rd</sup> Cycle - CGPA 3.61)

'College with Potential for Excellence' Status Awarded by UGC

'Best College Award' by University of Mumbai

## Chemistry Department

### Patents

Sr. No.	Name	Title of Patent	Year	Patent Number	Patent Filed/Granted /Published
01	Prof. (Dr.) S.K. Patil	A method for the preparation of frozen product with increased shelf life and a combination thereof	2023	202321052404	Published
02	Dr. (Mrs.) J.S. Thakur	A collision avoidance system in a vehicle	2023	202321047087	Published
03	Dr. J.M. Pawara, Dr. V.S. Kamble, Dr. D.K. Patil	Metal detection device	2023	405961-001	Granted



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### Research papers published (2019-20 to 2023-24)

Sr. No.	Title of paper	Name of the author/s	Name of journal	Year of publication	ISSN number
1	Adsorptive removal of Fluoride using Polymer Modified Ceria Nanoparticles: Determination of Equilibrium, Kinetic and Thermodynamic Parameters	Maheshwari Zirpe, Hemlata Bagla, Jyotsna Thakur	Separation Science and Technology	2019	57540 149-6395
2	Highly efficient green synthesis of the photochromic spironaphthoxazines using an eco-friendly choline hydroxide catalyst	Vajekar, S. N.; Shankarling, G. S.	Synthetic Communication	2019	1532-2432
3	Choline hydroxide promoted sustainable one-pot three-component synthesis of 1H-pyrazolo[1,2-a]pyridazine-2-carbonitriles under solvent-free conditions	Vajekar, S. N.; Shankarlin, G. S.	Synthetic Communication	2020	1532-2432
4	Application of Fe <sub>3</sub> O <sub>4</sub> as a magnetic nanocatalyst in the synthesis of photochromic spironaphthoxazines	Vajekar, S. N.; Pargaonkar, J. G.; Patil A. B.; Patil, S. K.	Research Journal of Chemistry and Environment	2020	0972-0626
5	Binderless synthesis of nanoknotnet-like cobalt oxide for supercapacitor application	P. A. Patil	Materials Today: Proceedings	2020	2214-7853
6	Fabrication of ZnO nanostructured sensor by co-precipitation technique for NO <sub>2</sub> gas detection.	V.S. Kamble, N.K. Desai, S.T. Salunkhe	International Journal of Grid and Distributing Computing	2020	2005-4262
7	Rapid Removal of 152+154Eu (III) using Polyaniline/ Ceria Nanocomposite from Low Level Waste	Maheshwari Zirpe, Hemlata Bagla, Jyotsna Thakur	Journal of Inorganic and Organometallic Polymers and Materials	2020	1574-1443, 1574-1451

8	Phytochemical Screening And Comparative Assessment of Anti-Oxidant, Amylase and Anticoagulant Activity of Different Parts of Colocasia Esculenta (L.) Schott	Jyotsna Thakur, Mrunal Khambekar, Anuja Kumathekar	Journal of Advanced Scientific Research	2020	0976-9595
9	Highly efficient one pot synthesis of heterocyclic benzimidazoles catalysed by nano crystalline ZrO <sub>2</sub> .	Patil Vishvanath D.	Heterocyclic Letters	2020	2230-9632
10	Synthesis, characterization, anticancer and DNA photocleavage study of novel quinoline Schiff base and its metal complexes.	Sanjay K. Patil, Baliram T. Vibhute	Arabian Journal of Chemistry	2021	1878-5352
11	Synthesis, Spectral Characterization and Antitubercular Study of noval Quinoline Schiff Base and Its Metal Complexes	Vibhute Baliram T, Patil Sanjay K, Patil Arvind M	Analytical Chemistry Letters	2021	2229-7928
12	Multicomponent one pot synthesis of Substituted 3,4-Dihydropyrimidin-2-(1H)-ones by Nanocrystalline CeO <sub>2</sub>	V.D. Patil	Research Journal of Chemistry and Environment	2021	0972-0626
13	Facile Synthesis of 2-aryl-5-ethyl-2,3-dihydro-1H-3-pyrazolones catalysed by nano Crystalline ZrO <sub>2</sub>	V.D. Patil	International Journal of All Research Education and Scientific Methods (IJARESM)	2021	2455-6211
14	Studies on structural, spectral and morphological properties of co-precipitation derived Co doped ZnO nanocapsules for NO <sub>2</sub> sensing applications	V.S. Kamble, Y.H. Navale, V.B. Patil, N.K. Desai, S.N. Vajekar, S.T. Salunkhe	Journal of Materials Science: Materials in Electronics	2021	0957-4522
15	Enhanced NO <sub>2</sub> gas sensing performance of Ni-doped ZnO nanostructures	V.S. Kamble, Y.H. Navale, V.B. Patil, N.K. Desai, S.T. Salunkhe	Journal of Material Science: Material in Electronics	2021	957-4522
16	Gas Sensing Application of Ceria, Cassiterite and Ceria-Cassiterite Nanocomposite	Mane C.B., Pawar R.P., Tapase A.S., More H.S., Jadhav B.V., Patil R.P.	Research Journal of Chemistry and Environment	2021	0972-0626
17	Study of Application of Zn <sub>0.5</sub> Mn <sub>0.5</sub> Fe <sub>2</sub> O <sub>4</sub> NP's prepared via Sol-gel Method for Dyestuff Industry Waste Water Purification,	Shaikh S.F., Jadhav B.V., Patil R. P., Patil J. S,	Research Journal of Chemistry and Environment,	2021	0972-0626
18	Effect of Nickel Substitution on Structural and Magnetic Properties of Novel Polyol route Synthesized Cobalt Ferrite	Birmule P.R., Chavan A. S., Jadhav B. V., Burungale A. S., Helavi. Reddy V.B., Patil R.P.	Research Journal of Chemistry and Environment	2021	0972-0626

19	Photodegradation of Dye Pollutants on Nanocrystalline Co Doped Li <sub>0.5</sub> Fe <sub>2.5</sub> O <sub>4</sub> under UV-Visible Light Irradiation	Arjun S. Chavan, Bhagvan V. Jadhav, Mohan R. Kadam, Akush V. Mali, C. B. Mane, and Rajendra P. Patil	Macromolecular Symposia	2021	1022-1360
20	A green and efficient one-Pot Synthesis of Polyhydroquinoline Derivatives Catalyzed By Ammonium Chloride Under Aqueous Media	B.D. Aghav, S.A. Shaikh, N. Roy and K.N. Vidhate	Vidyabharati International Interdisciplinary Research Journal	2021	2319-4979
21	An Innovative Method Designed for the Synthesis of Some New Mixed Ligand Ni(II) Complexes Its Characterization and Applications	J.M.Pawara and S.S.Patil	World Journal of Chemical Education	2021	2375-1665
22	Microwave-Assisted Synthesis of Some New Mixed Ligand Ni(II) Complexes Its Characterization and Its Antimicrobial Study	J.M.Pawara and S.S.Patil	Journal of Pharmaceutical Research International	2021	2456-9119
23	Synthesis of NiO Nanoparticles by Thermal Decomposition at Low-Temperature of New Aqua(2-amino-6-methyl pyrimidine-4-ol and Isoleucine)Ni(II) Complex and its antimicrobial study'	J. M. Pawara and S.S.Patil	Journal of Advanced Scientific Research	2021	0976-9595
24	Enhanced Photocatalytic Degradation of Methylene Blue Dye using Ag-Fe <sub>2</sub> O <sub>3</sub> Core-shell Nanoparticles	Maheshwari Zirpe, Thakur Jyotsna	Research Journal of Chemistry and Environment	2021	0972-0626
25	A green approach to the Rapid Synthesis of 2-Phenyl Benzoxazole and its derivatives using Magnetically Separable Ag@ Fe <sub>2</sub> O <sub>3</sub> Core-Shell Nanoparticles	Shinde Gayatree Maheshwari Zirpe, Thakur Jyotsna	Research Journal of Chemistry and Environment	2021	0972-0626
26	Studies of Mixed Ligand Lanthanum Complexes: Synthesis, Spectral Interpretations and Antibacterial Study	S.S. Patil and D.K. Patil	Journal of Pharmaceutical Research International	2021	2456-9119
27	A Newer Method Developed For The Synthesis Of Diferuloyl Methane And Its Derivatives	J.M.Pawara, S.S. Patil, D.K.Patil, V.S.Kamble	International journal of advanced research	2021	2320-5407
28	Green Ecofriendly synthesis of Glycoluril derivatives via Cyclocondensation of Benzil and urea/thiourea	Patil Vishvanath D., Gharat Vaishnav D. and Salve Amruta M.	Research Journal of Chemistry and Environment	2021	0972-0626

29	Conventional and Green Synthesis, Characterization and Antimicrobial potency of Complex of Cu (II) with [2-((Z) (4-hydroxy-3-methoxy-5-((E)-thiazol-5-ylidiazenyl)benzenylidene)amino)benzoic acid] (MThBABA)	Varsha Ahuja, Vasant Barhate, Ritika Makhijani	Journal of Scientific Research	2021	0447-9483
30	Conventional and Microwave Synthesis, Characterization and Study of Microbiological Activity of Complexes of Ni (II) with [2-((Z)-(4-hydroxy-3-methoxy-5-((E)-thiazol-5-ylidiazenyl)benzenylidene)amino)benzoic acid] (MThBABA)	Ritika Makhijani Vasant Barhate, Varsha Ahuja	Journal of Scientific Research	2021	0447-9483
31	Microwave and Conventional Synthesis of Palladium (II) Complex with, 2-(5- Bromo-2-oxoindolin-3-ylidene) hydrazine-1-carbothioamide, Characterization and Study of Microbiological Activity	Borgave Seema, Barhate Vasant, Madan Parineeta	Research Journal of Chemistry and Environment	2021	0972-0626
32	Role of [N - (O-HydroxyBenzylidene) Pyridine -2-Amine] (NOHBPA) in Extractive Spectrophotometric Determination of Nickel (II)	Makhijani Ritika, Navale Dinesh and Barhate Vasant	Research Journal of Chemistry and Environment	2021	0972-0626
33	Magnetically Recyclable Ag@Fe <sub>2</sub> O <sub>3</sub> Core-shell Nanostructured Catalyst for One-pot Synthesis of 2-Aryl Benzimidazole and Benzothiazole	G. Shinde, J.Thakur	Current Organocatalysis	2022	2213-3380
34	Synthesis of substituted benzolel[1,3] oxazino analogs	Ranade P. B., Navale D. N., Zote S. W. Patil D. K.	Indian Journal of Chemistry	2022	0376-4699
35	Antimicrobial, Cytotoxicity and Molecular Docking Study of New Quinoline Schiff Base and its Metal(ii) Complex	B.T.Vibute, B.D.Aghav, B.P.More, R.O. Bellamkonda S.K.Patil	Asian Journal of Chemistry	2022	0970-7077
36	Improved Toxic NO <sub>2</sub> Gas Sensing Response of Cu-doped ZnO Thin-film Sensors derived by Simple Co-precipitation Route	V.S. Kamble, R.K. Zemase, R.H. Gupta, B.D. Aghav, S.A. Shaikh, J.M. Pawara, S.K. Patil, S.T. Salunkhe	Optical Materials	2022	0925-3467
37	Sono-assisted synthesis of AgFeO <sub>2</sub> nanoparticles for efficient removal of Basic Green-4 dye from aqueous solution	Maheshwari Zirpe, Jyotsna Thakur	Journal of Nanoparticle Research	2022	1388-0764

38	Impact of Industrial Proximity on the Plants and Agricultural Soil in Talaja Industrial Area, India	Jyotsna Thakur, Shrushti Kulkarni, Mahadev Mulik, Pravin Chormule Madhukar Pande	Journal of Soils and Crops	2022	0971-2836
39	Physicochemical, Thermal, Spectral and Biological Investigation of Mixed Ligand Lanthanum Complexes.	A. A. Bhagat, S. S. Patil, Bhushan P. Langi, V. S. Kamble, D. K. Patil, J. M. Pawara.	Indian Journal of Natural Sciences	2022	0976 – 0997
40	X-Ray Diffraction Studies for the Determination of Crystallite Size of ZnO Nanoparticles: Scherrer Formula and Williamson-Hall Plot Approach	B.D. Aghav, V.S. Kamble, S.A. Shaikh, J.M. Pawara, S.T. Salunkhe	Indian Journal of Natural Sciences	2022	0976 – 0997
41	Synthesis of Metal Oxide Nanoparticles by Thermal Decomposition of a Ni(II) Complex and its Antimicrobial Activity	S. S. Patil, V. S. Kamble, D. K. Patil, J. M. Pawara	Malaysian Journal of Chemistry	2022	2550-1658
42	Antibacterial Detection of Some Synthesized Cerium(III) Metal Mixed Ligand Complexes Along With Their Physicochemical, Spectral And Thermal Study.	D. K. Patil, J. M. Pawara, Bhimarao Patil, V. S. Kamble	Shodhasamhita	2022	2277 -7067
43	Metal nanoparticles: Ligand-free approach towards coupling reactions	Vajekar, S.N., A.B. Patil, Sharwari K. Mengane	Current Chinese Science	2022	2210-2914
44	Effects of Annealing Temperature on the Size of Zinc Doped Cobalt Ferrite Nanoparticles Synthesized using Green Binder,	Sajid F. Shaikh B.V. Jadhav, Patil R. P.	International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)	2022	2581 -9429
45	Bimetallic CoCeO <sub>2</sub> oxide nanoparticles: An efficient and reusable heterogeneous catalyst for synthesis of 2-amino-3-cyano-4H-pyran derivatives	S.A. Shaikh, V.S. Kamble, R.H. Gupta, A.G. Awale, S.T. Salunkhe, B.D. Aghav	Journal of Heterocyclic Chemistry	2023	0022-152X
46	Efficient Synthesis of Xanthenediones Using CuCeO <sub>2</sub> Nanoparticle Catalyst in Aqueous Medium	S.A. Shaikh, V.S. Kamble, S.T. Salunkhe, S.K. Patil, B.D. Aghav	Organic Preparations and Procedures International	2023	0030-4948

47	Core-shell structured Fe <sub>3</sub> O <sub>4</sub> @MgO: magnetically recyclable nanocatalyst for one-pot synthesis of polyhydroquinoline derivatives under solvent-free conditions	GayatreeShinde, Jyotsna Thakur	Journal of Chemical Sciences	2023	0974-3626
48	Sol-gel Assisted Nano Structured Spinel Ferrite Co <sub>0.5</sub> Ni <sub>0.5</sub> Fe <sub>1.0</sub> Cr <sub>1.0</sub> O <sub>4</sub> and its Catalytic Application for the Reduction of P-Nitrophenol to P-Aminophenol	B.V. Jadhav, R.P. Patil, A.D. Pinjarkar	Indian Journal of Natural Sciences	2023	0976 – 0997
49	The Review Study on Health Issues Due to Chemically Adulterated Food	Sajid F. Shaikh, Ayesha Zameer Takey, Tasmeeana Shaukat Chougale, Bhagwan V. Jadhav, Jayashri S. Patil, Hrushikesh B. Jadhav	International Journal of Emerging Technologies and Innovative Research (IJETIR)	2023	2349-5162
50	A green and one-pot synthesis of 6-amino-1,4-dihydropyrano[2,3-c]-pyrazole-5-carbonitrile derivatives using CoCeO <sub>2</sub> nanoparticles as an efficient, reusable and heterogeneous catalyst.	S. A. Shaikh, V. S. Kamble, R. K. Zemase, S. K. Patil, B. D. Aghav.	Research on Chemical Intermediate	2023	1568-5675
51	Versatile applications of transition metal incorporating quinoline Schiff base metal complexes: An overview	Harshad R. Sonawane , Baliram T. Vibhute , Balasaheb D. Aghav , Jaydeep V. Deore, Sanjay K. Patil	European Journal of Medicinal Chemistry	2023	0223-5234
52	Removal study of Malachite Green dye from aqueous media on Activated carbon by surfactant modification.	Sapana M.Chilate JitendraM.Pawara ,Shailesh N.Vajekar	A Journal of the National Institute of Urban Affairs	2023	0970-9045
53	Adsorption and Kinetic study of priority organic pollutant phenol from aqueous waste using Activated carbon	Shailesh Vajekar, V.S. Kamble Omkar Shembekar, Sapana Chilate	Journal of Advanced Zoology	2023	050253-7214
54	Adsorption of Congo Red dye from waste water using Carbon based material:A Comparative Study	Shailesh N.Vajekar, Vishal S. Kamble, Sapana M.Chilate	A Journal of the National Institute of Urban Affairs	2023	0970-9045

55	Synthesis, Characterization, and Applications of Y <sub>2</sub> O <sub>3</sub> Nanoparticles Synthesized via Thermal Decomposition of the [Y(Cup) <sub>2</sub> (Gly)·2H <sub>2</sub> O] Complex	Vishal S. Kambl, Sunil. S. Patil, Sagar L. Khairnar, Digambar K. Patil, Satyajit S. Kambl, Sapana M. Chilate, Jitendra M. Pawara	Oriental Journal of Chemistry	2023	2231-5039
56	The Effects of Various Mordant Combinations on Dyeing Cotton Fabric with Natural Dyes Extracted from Marigold Flower, Blueberries, Beetroot, and Blue Butterfly Pea Flower: A Comprehensive Study	Avinash K. Gavit, Vishal S. Kamble, Satyajit Kamble, Shashikant Pawar, Milind Jamdhade, Jitendra M. Pawara	Indian Journal of natural Sciences	2023	0976 – 0997
57	Preparation Of Mixed Ligand Complexes of Cerium (III) Metal Using Multidentate Ligands And Investigation Of Their Physicochemical, Spectral, Thermal, And Antibacterial Properties	J. M. Pawara, V. S. Kamble, S. S. Kamble, D. Y. Patil, H. P. Deokar, D. K. Patil	Journal of Advanced Zoology	2023	0253-7214
58	Navigating the Evolution: A Comprehensive Analysis of Awareness in Contemporary TV Display Technologies	V.S. Kamble, S. L. Khairnar, J. M. Pawara, D. K. Patil, V. N. Pawar, S. S. Kamble	Journal of Advanced Zoology	2023	0253-7214
59	Exploring Aerated Autoclaved Concrete (ACC) Acoustic Properties Across Diverse Frequency Bands	P.S. Thakur, V.N. Pawar, S.S.Kamble, J.M. Pawara, S.A. Solaskar, V.S. Kamble	Journal of Advanced Zoology	2023	0253-7214
60	Magnetically Recoverable CMC/Fe <sub>3</sub> O <sub>4</sub> Nanocomposite for Efficient Removal of Hg(II) and Cd(II) ions from the Aqueous Solution	Maheshwari Zirpe, Jyotsna Thakur	Separation Science and Technology	2023	1520-57540 149-6395
61	Spindle-shaped AgFeO <sub>2</sub> nanoparticles for efficient removal of cationic and anionic dyes	Maheshwari Zirpe, Jyotsna Thakur	Journal of Dispersion Science and Technology	2023	0193-26911 532-2351
62	Solvent free multicomponent synthesis of pyrazole with ceria doped copper nanocatalyst	V.D. Patil	Heterocyclic Letters	2023	2231 - 3087
63	Synthesis of 1,8-dioxodecahydroacridines using core-shell structured Fe <sub>3</sub> O <sub>4</sub> @MgO MNP's: a solvent-free protocol	Gayatree Shinde, Jyotsna Thakur	Research on Chemical Intermediate	2023	1568-5675



64	Co(II), Ni(II), Cu(II) and Zn(II) Metal Complex of hydrazone Schiff Base Ligand: Synthesis, characterization, Thermal Behaviour, Antioxidant and Antimicrobial Studies	T.S. Umasare, S.K. Patil, J.G. Pargaomkar	Asian Journal of Chemistry	2024	0970-7077
65	Synthesis and Characterization of ZnO Nanostructured Sensors via Co-precipitation: A Comprehensive Study for Toxic H <sub>2</sub> S Gas Detection	Vishal S. Kamble, Sanjay K. Patil, Shailesh N. Vajekar, Suresh T. Salunkhe, Jyotsna G. Pargaonkar	Indian Journal of Natural Science	2024	0976 – 0997
66	Simple co-precipitation synthesis of aluminium-decorated zinc oxide nanorods for noxious NO <sub>2</sub> gas detection at low ppm concentration	V.N. Pawar, V.S. Kamble, K.A. Mundhe, B.D. Aghav, S.T. Salunkhe, A.N. Kadam. S.S. Kamble	Vacuum	2024	0042-207X
67	Low-temperature NO <sub>2</sub> gas sensing by delafossite-structured AgFeO <sub>2</sub> nanograins	N. More, R. Bhise, M. Zirpe, M. Padvi, J. Thakur	Journal of Nanoparticle Research	2024	1572-896X
68	Mild efficient green multicomponent synthesis of bis (PYRAZOL-5-OL) derivative using cobalt doped zinc nano catalyst	V.D. Patil	Research Journal of Chemistry and Environment	2024	0972-0626
69	Photoelectrochemical Properties of Chemical Bath Deposited CdNiSe Thin Film	B.V. Jadhav, H.B. Jadhav, R.P. Patil, J. Mustafa, H.M.H. Muhaisen, A.Y.A. Mohammed	Journal of Nanoelectronics and Optoelectronics	2024	1555-1318
70	PEG-mediated facile one-pot synthesis of 1,2-dihydro-1-arylnaphtho[1,2- <i>e</i> ][1,3]oxirane-3-ones using magnetically separable magnetite supported MgO core-shell nanocatalyst: a Green approach	G. Shinde, J. Thakur	Monatshefte Fur Chemie	2024	0026-9247



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### Books published (2019-20 to 2023-24)

Sr. No.	Name of the teacher	Title of the book published	Title of the chapters published	Year of publication	ISBN/ISSN number	Name of the publisher
1	S.N. Vajekar, J.M. Pawara, Pratibha Singh, Dr. Leena Rao, Dr. S.K. Patil	Organic Chemistry (F.Y.B.Sc. Sem-I &II)		2019	978-81-941207-1-1	Sheth Publishers Pvt.Ltd., Mumbai
2	S.N. Vajekar	Physical Chemistry F.Y.B.Sc.		2019	978-81-941207-3-5	Sheth Publishers Pvt.Ltd., Mumbai
3	S.N. Vajekar, J.G. Pargaonkar	Inorganic Chemistry F.Y.B.Sc.		2019	978-81-941207-2-8	Sheth Publishers Pvt.Ltd., Mumbai
4	Jitesh Mundhe, Rachanarani Dutta, Rahul Patil and Jyotsna Thakur		Study of Bioaccumulation of Toxic Heavy Metals In the Siluriformes Fish Found In Patalganga River and Possible Health Risk Associated With Its Consumption	2019	2394 - 7780	

5	Jitendra M. Pawara, Preeti V. Kumar Jain	Introduction of Synthetic Drugs (T.Y.B.Sc Chemistry Sem-V &VI))		2021	978-93- 5576- 294-8	Sheth Publisher PVT.LTD, Mumbai
6	S.K. Patil, V.S. Kamble, K. Raghuraman, D.V. Prabhu, P.A. Sathe, S.H.S. Bohra, S.S. Shetye	Basic Principles in Physical Chemistry F.Y.B.Sc. Semester I & II		2021	978-81- 941207- 3-5	Sheth Publisher PVT.LTD, Mumbai
7	P. A. Patil	Book - Advances in Functional & Sustainable Materials Chapter - Synthesis Parameter and Operational Mechanism of Spin Coating Method for Deposition of Thin Films		2022	978-93- 91768- 77-5	Bhumi Publishing
8	Dr. S. K. Patil Dr. B.D. Aghav	Organic Chemistry F.Y. B.Sc.		2022	978-93- 5576- 287-0	Sheth Publisher PVT.LTD, Mumbai
9	Vishal S. Kamble, Satyajit S. Kamble, Sagar L. Khairnar, Digambar K. Patil, Sushil S. Ghadge, Netaji K. Desai, Rahul N. Patil, Jitendra M. Pawara	Synthesis And Characterizat ion of Metal Oxide Nanoparticles : Approaches And Techniques	Futuristic Trends in Chemical, Material Sciences & Nano Technology	2023	978-93- 5747- 960-8	IIP Publication
10	Vishal. Kamble, Satyajit S. Kamble, Sagar L. Khairnar, Digambar K. Patil Jitendra M. Pawara	Comparative Study of Gas Sensor Technologies for Detecting Hazardous Gases	“Rethink revolution: transformati ve waves across disciplines”	2023	978-93- 340- 0464-9	Dr. Eknath Mundhe
11	K. Desai, V. S. Kamble, S. B. Bandgar, V. B. Ghanwat, S. B. Kamble, S. T. Mahanwar, S. R. Patil	Fabrication of organic light-emitting diodes (OLEDs) by using - conjugated organic compounds	Frontier Areas in Chemical Sciences	2023	978-81- 964704- 3-2	Aavishkar Publication, Talegaon Dabhade, Pune 412 106

<b>12</b>	S.N. Vajekar, Dr. J.M. Pawara, Dr. V.S. Kamble	Introduction of Synthetic Dye (T.Y.B.Sc Chemistry Sem-V &VI)		2023	978-93-5902-081-5	Sheth Publisher PVT.LTD, Mumbai
<b>13</b>	J.M. Pawara, Dr. V.S. Kamble, Dr. S.N. Vajekar, Preeti V. Kumar Jain	Introduction of Synthetic Drugs (T.Y.B.Sc Chemistry Sem-V &VI)		2023	978-93-5902-074-7	Sheth Publisher PVT.LTD, Mumbai
<b>14</b>	Dr. V.S. Kamble, Dr. J.M. Pawara Dr. S.N. Vajekar	Physical Chemistry (T.Y.B.Sc Chemistry Sem-V &VI)		2023	978-93-5902-145-4	Sheth Publisher PVT.LTD, Mumbai
<b>15</b>	Dr. J.M. Pawara, Dr. V.S. Kamble, Dr. D.K. Patil	Organic Chemistry (F.Y.B.Sc. Sem-I &II)		2023	978-93-5725-448-9	Sheth Publisher PVT.LTD, Mumbai
<b>16</b>	Dr. J.M. Pawara, Dr. V.S. Kamble, Dr. D.K. Patil	Physical Chemistry (F.Y.B.Sc. Sem-I &II)		2023	978-93-5725-275-1	Sheth Publisher PVT.LTD, Mumbai
<b>17</b>	Dr. J.M. Pawara, Dr. V.S. Kamble, Dr. D.K. Patil, Dr. Sudheer Lingayat, Pratibha Singh, Dr. Sunil Patil, Dr. H.A.Parbat	Practicals in Chemistry (F.Y.B.Sc. Sem-I &II)		2023	978-93-5902-075-4	Sheth Publisher PVT.LTD, Mumbai
<b>18</b>	Dr. J.M. Pawara, Dr. V.S. Kamble, Dr. D.K. Patil, Dr. Sudheer Lingayat, Dr. Sakina Z. Bootwala, Dr. Sheela Valecha, Dr. Chandrakant L. Patil	Inorganic Chemistry (S.Y.B.Sc Sem-III &IV)		2023	978-935902-168-3	Sheth Publisher PVT.LTD, Mumbai
<b>19</b>	Dr. Balasaheb D. Aghav, Dr. Jitendra M. Pawara, Dr. Digambar K. Patil, Dr. Anuja Singh, Mr. Rahul N. Patil	Practicals in Good Laboratory Practices (Vocational Skill Course)		2023	978-93-5902-6084	Sheth Publisher PVT.LTD, Mumbai
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