

Curriculum Vitae

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Dr CS Chanotiya is a Principal Scientist in phytochemistry at Central Institute of Medicinal and Aromatic Plants, (CSIR-CIMAP), Lucknow since July 17, 2017. He earned his master's degree in organic chemistry from Kumaun University, Nainital in 2000. In 2005, he completed his Ph.D. in Natural Product Chemistry from Kumaun University; Nainital, Uttarakhand under the supervision of Prof CS Mathela. He joined Central Institute of Medicinal and Aromatic Plants, (CIMAP), a constituent laboratory under the Council of Scientific and Industrial Research (CSIR), New Delhi, as junior scientist in 2006. He is currently an Associate Professor (honorary) in the Faculty of Chemical Sciences with effect from July 17, 2017 in the Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, UP, India.

His area of research includes isolation and characterization of biologically active plant metabolites from medicinal and aromatic Plants including essential oils. Besides, development of quality control methods for detection of adulteration in natural essential oils using GC, GC-MS, LC-HR/MS, NMR, TGA and radioactive carbon dating (C^{14}) using Accelerator Mass Spectrometry techniques.

Recognized for his contributions, Dr Chanotiya has received "**Uttarakhand State Young Scientist Award 2007**" by Uttarakhand State Science Congress, Uttarakhand, India. In addition, he has been team members of CSIR award for S&T Innovations for Rural Development (CAIRD), 2014 and CSIR Technology Award for Life Science-2018: Certificate of merit in Technology Award in Life Sciences, 2018.

Dr Chanotiya has published **more than 200 original research articles** with eight patents and five book chapters to his credit. Dr. Chanotiya's supervision has guided 3 Ph.D. students and four are currently enrolled for PhD.

Dr Chanotiya has been recognized in **Elsevier top-cited scientists** (2%) in September 2022 data-update for "Updated science-wide author databases of standardized citation indicators."

Citation overview

Scopus Author ID: 9236335800

2021: **563**

2022: **656**

2023: **361 (as on June 19, 2023)**

Documents by author: **180**

3760 Citations by **3174** documents

h-index: 32

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List of Publications

Total: 206; Published Paper: 205; Accepted: 01

a). April 2005 to March 2013

A total of seventy five (1-75) original research articles were published in various national and international Journals.

b). Complete list of publication starting from April 2013 to March 2023

76. "Cathepsin D protease inhibition activity of *Punica granatum* fruit peel extracts, isolates and semisynthetic analogues" AK Chaturvedi, S Luqman, V Dubey, JP Thakur, D Saikia, CS Chanotiya, K Shanker and AS Negi. **Medicinal Chemistry Research**, August **2013**, 22 (8), 3953-3958. DOI **10.1007/s00044-012-0397-z**.

77. "Biomass yield, essential oil yield and quality of geranium (*Pelargonium graveolens* L. Her.) as influenced by intercropping with garlic (*Allium sativum* L.) under subtropical and temperate climate of India." Man Singh, UB Singh, Muni Ram, Anju Yadav and **CS Chanotiya**. **Industrial Crops and Products**, **2013**, 46, 234-237.

78. "Copious shoots as a potential source for the production of essential oil in *Eucalyptus globules*" N Manika, **CS Chanotiya**, MPS Negi and GD Bagchi. **Industrial Crops and Products**, **2013**, 46, 80-84.

79. "Assessing essential oil components as plant-based preservatives against fungi that deteriorate herbal raw materials" Prashant Kumar Mishra, Priyanka Singh, Bhanu Prakash, Akash Kedia, Nawal Kishore Dubey and **CS Chanotiya**. **International Biodeterioration & Biodegradation**, **2013**, 80, 16-21.

√ **80.** "Avoiding interferences and contaminants using Eppendorf Safe-lock tubes in mass spectrometry studies of natural products" **CS Chanotiya**, VS Pragadheesh and GC Uniyal. **Eppendorf Application Note**, April 2013, 282, 1-6.

81. "4-Coumarate: CoA Ligase Partitions Metabolites for Eugenol Biosynthesis" Shubhra Rastogi, Ritesh Kumar, **CS Chanotiya**, Karuna Shanker, Madan M. Gupta, Dinesh A. Nagegowda and Ajit K. Shasany. **Plant Cell Physiol.** **2013**, Aug;54(8):1238-52. doi: 10.1093/pcp/pct073. Epub 2013 May 14.

82. "Changes in aroma profiles of 11 Indian *Ocimum* taxa during plant ontogeny" RC Padalia, RS Verma, Amit Chauhan and **CS Chanotiya**. **Acta Physiologiae Plantarum**, **2013**, 35, 2567–2587.

√ **83.** "Leaf essential oil of cultivated *Pimenta racemosa* (Mill.) J.W. Moore from North India: Distribution of phenylpropanoids and chiral terpenoids" VS Pragadheesh, Anju Yadav, SC Singh, Namita Gupta and **CS Chanotiya**. **Medicinal and Aromatic Plants**, **2013**, 2:118. doi: 10.4172/2167-0412.1000118.

84. "Docking and ADME studies of Natural compounds of Agarwood oil for Topical Anti-Inflammatory activity" DK Yadav, V Mudgal, J Agrawal, AK Maurya, DU Bawankule, **CS Chanotiya**, Feroz Khan and ST Thul. **Current Computer Aided Drug Design**, **2013**, Sep; 9(3):360-370.

√ **85.** "Chemical characterization and antifungal activity of *Cinnamomum camphora* essential oil" VS Pragadheesh, Arvind Saroj, Anju Yadav, **CS Chanotiya**, M Alam and A Samad. **Industrial Crops and Products**, **2013**, 49, 628-633.

√ **86.** "Compositions, enantiomer characterization and antifungal activity of two *Ocimum* essential oils." VS Pragadheesh, Arvind Saroj, Anju Yadav, **CS Chanotiya** and A Samad. **Industrial Crops and Products**, **2013**, 50, 333-337.

87. "ACC deaminase-containing *Bacillus subtilis* reduces stress ethylene-induced damage and improves mycorrhizal colonization and rhizobial nodulation in *Trigonella foenum-graecum* under drought stress." Deepti Barnawal, Deepamala Maji, Nidhi Bharti, **CS Chanotiya**, Alok Kalra. **Journal of Plant Growth Regulation**, **2013**, 32(4), 809-822. doi:10.1007/s00344-013-9347-3.

88. "Methyl jasmonate-elicited transcriptional responses and pentacyclic triterpene biosynthesis in sweet basil." RC Misra, Protiti Maiti, **CS Chanotiya**, K Shanker, Sumit Ghosh, **Plant Physiol.**, **2014**, Feb; 164(2), 1028-1044. doi: 10.1104/pp.113.232884. Epub 2013 Dec 23, DOI:10.1104/pp.113.232884.

(This paper received an award of best publication (Biotechnology) in CSIR-CIMAP annual day in the year 2014)

89. "Synthesis of combretastatin A4 analogues on steroidal framework and their anti-breast cancer activity." Swati Parihar, Amit Kumar, Amit K. Chaturvedi, Naresh Kumar Sachan, Suaib Luqman, Bendangla Changkija, Murli Manohar, Om Prakash, D. Chanda, Feroz Khan, **CS Chanotiya**, Karuna Shanker, Anila Dwivedi, Rituraj Konwar, Arvind S. Negi. **The Journal of Steroid Biochemistry and Molecular Biology**, September **2013**, 137, 332–344.

(This paper received an award of best publication (Chemical Sciences) in CSIR-CIMAP annual day in the year 2014.)

90. "Registration of a high yielding cold-tolerant menthol mint variety CIM-Kranti of *Mentha arvensis*." JR Bahl, RP Bansal, OP, Dhawan, SS, Dhawan, RK, Upadhyay, JP, Singh, RK, Lal, AK Shasany, **CS Chanotiya**, DD Patra, A Kalra, SK, Singh, A, Mishra, A, Chauhan, V, Singh, Mohd, Zaim, Mohd, Navi, BS Bisht. **J Medicinal and Aromatic Plant Sciences**, **2013**, 35(3-4) 184-189.

91. "Solubility enhancement of miconazole nitrate: binary and ternary mixture approach" Vineet Kumar Rai, Harinath Dwivedi , NP Yadav, **CS Chanotiya** and Shubhini Saraf.

Drug Dev Ind Pharm., (Informa Healthcare), **2014** Aug; 40(8), 1021-1029. doi: 10.3109/03639045.2013.801487. Epub 2013 Jun 19.

92. "ACC deaminase-containing *Arthrobacter protophormiae* induces NaCl stress tolerance through reduced ACC oxidase activity and ethylene production resulting in improved nodulation and mycorrhization in *Pisum sativum*." D Barnawal, N Bharti, D Maji, **CS Chanotiya**, A Kalra. **Journal of Plant Physiology**, **2014**, 171(11), 884–894. doi: 10.1016/j.jplph.2014.03.007.

93. "Chemical Analysis of Volatile Oils from West Himalayan Pindrow Fir *Abies pindrow*" RC Padalia, RS Verma, A Chauhan, P Goswami and CS Chanotiya, **Natural prod Commun**. **2014**, 9(8), 1181-1184.

94. "Antifungal, antiaflatoxic and insecticidal efficacy of Spearmint (*Mentha spicata* L.) essential oil." A Kedia, B Prakash, PK Mishra, CS Chanotiya and NK Dubey. **International Biodeterioration & Biodegradation**, **2014**, 89, 29–36.

95. "Sterol partitioning by *HMGR* and *DXR* for routing intermediates towards withanolide biosynthesis" Shefali Singh, Shaifali Pal, K Shanker, CS Chanotiya, MM Gupta, UN Dwivedi, AK Shasany. **Physiologia Plantarum**, **2014**, 152(4), 617-633. doi:10.1111/ppl.12213.

96. "Does the volatile hydrocarbon profile differ between the sexes: a case study on five aphidophagous ladybirds" Rojalin Pattanayak, Geetanjali Mishra, Omkar, **CS Chanotiya**, PK Rout, CS Mohanty. **Archives of Insect Biochemistry & Physiology**, **2014**, 87(3), 105-125. Epub 2014 Jul 25. doi.org/10.1002/arch.21184

97. "Compositional variability and antifungal potentials of *Ocimum basilicum*, *O. tenuiflorum*, *O. gratissimum* and *O. kilimandscharicum* essential oils against *Rhizoctonia solani* and *Choanephora cucurbitarum*" RC Padalia, RS Verma, A Chauhan, P Goswami, **CS Chanotiya**, A Saroj, A Samad and A Khaliq, **Natural prod Commun**. **2014**, 9(10), 1507-1510.

98. "Genetic fidelity of long-term micropropagated *Lavandula officinalis* Chaix.: an important aromatic medicinal plant" Archana Prasad, SP Shukla, Archana Mathur, **CS Chanotiya**, AK Mathur. **Plant Cell Tiss Organ Cult (PCTOC)**, **February 2015**, **120**, 803–811. DOI 10.1007/s11240-014-0637-7.

99. "Enantiomer differentiation of key volatile constituents from leaves, stems, rhizome and flowers of cultivated *Hedychium coronarium* Koenig from India" VS Pragadheesh, Anju Yadav and **CS Chanotiya**. **J. Essent. Oil Res**, **2015**, **27(2)**, **101-106**. doi:10.1080/10412905.2014.987929.

100. "Chemo-profiling of some Himalayan flora: Search for new pharmaceuticals." CS Mathela and CS Chanotiya. **J. Indian Chem. Soc.**, Kolkata (a Special Issue to be published in the honour of Prof. K.C. Joshi). **J. Indian Chem. Soc.** **2014**, 91, 1419-1427.

101. "Seasonal Variation in Essential oil Composition of *Artemisia nilagirica* var. *septentrionalis* from foot hills of Western Himalaya" RC Padalia, RS Verma, Amit Chauhan and CS Chanotiya. **Rec. Nat. Prod.** **2014**, 8(3), 281-285
102. "Physicochemical analysis of *Psophocarpus tetragonolobus* (L.) DC seed with fatty acid and total lipids compositions" CS Mohanty, RC Pradhan, V Singh, N Singh, R Pattanayak, Om Prakash, **CS Chanotiya** and PK Rout. **Journal of Food Science and technology**, **2015**, 52(6): 3660–3670. doi 10.1007/s13197-014-1436-1
- √ 103. "Anti-phytopathogenic activity of *Syzygium cumini* essential oil, hydrocarbon fractions and its novel constituents" Arvind Saroj, VS Pragadheesh, Anju Yadav, SC Singh, AS Negi, A Samad, CS Chanotiya. **Industrial Crops and Products**, **2015**, 74, 327-335. doi: 10.1016/j.indcrop.2015.04.065.
104. "The essential oil composition of *Melaleuca leucadendra* L. grown in India: A novel source of (*E*)-nerolidol" RC Padalia, RS Verma, Amit Chauhan, CS Chanotiya. **Industrial Crops and Products**, **2015 (July)**, 69, 224-227.
105. "Essential oil composition of Himalayan Peony (*Paeonia emodi* Royle)" RS Verma, RC Padalia, Amit Chauhan, Anju Yadav, CS Chanotiya. **J. Essent. Oil Res.** **2015**, 27(6), 477-480. DOI:10.1080/10412905.2015.1039664.
106. "Characterization of essential oil of a novel menthofuran rich variant of peppermint (*Mentha x piperita* L.) from India using Gas chromatography coupled with mass spectrometry. Prakash Goswami, Amit Chauhan, RS Verma, RC Padalia, CS Chanotiya. **J. Essent. Oil Res.** **2015**, 27:4, 329-336 (DOI: 10.1080/10412905.2015.1043401).
- √107. "Role of Substituents in Cyclodextrin Derivatives for Enantioselective Gas Chromatographic Separation of Chiral Terpenoids in the Essential Oils of *Mentha spicata*" VS Pragadheesh, Anju Yadav and CS Chanotiya. **J Chromatogr B**, **2015**, 1002, 30-41. doi: 10.1016/j.jchromb.2015.07.034.
108. "Involvement of an *ent*-copalyl diphosphate synthase in tissue-specific accumulation of specialized diterpenes in *Andrographis paniculata*" RC Misra, Anchal Garg, S Roy, **CS Chanotiya**, PG Vasudev and Sumit Ghosh. **Plant Science**, **2015**, 240, 50-64. doi:10.1016/j.plantsci.2015.08.016
109. "The role of a novel fungal strain *Trichoderma atroviride* RVF3 in improving humic acid content in mature compost and vermicompost via ligninolytic and celluloxylanolytic activities" D Maji, Manju Singh, K Wasnik, **CS Chanotiya** and A Kalra. **Journal of Applied Microbiology**, **2015**, 119(6), 1584-1596;
110. "Semi-chemical profile of four aphidophagous Indian Coccinellidae (Coleoptera)" Rojalini Pattanayak, Geetanjali Mishra, **CS Chanotiya**, PK Rout, CS Mohanty and Omkar. **The Canadian Entomologist** (Entomological Society of Canada); **2016**, 148(2), 171-186. doi: <https://doi.org/10.4039/tce.2015.45>
111. "Compositional and Enantiomeric Analysis of the Essential Oil of *Taxodium distichum* from India" RC Padalia, RS Verma, Amit Chauhan, Prakash Goswami, CS Chanotiya. **Natural Prod Commun.** **2016**, 11(3), 419-422.
112. "ACC-Deaminase-Producing Endophyte *Brachybacterium paraconglomeratum* strain SMR₂₀ ameliorates *Chlorophytum* salinity stress via altering phytohormone generation" D Barnawal, N Bharti, A Tripathi, SS Pandey, CS Chanotiya and A Kalra. **J Plant Growth Regulation**, **2016**, 35(2), 553-564. DOI: 10.1007/s00344-015-9560-3

113. "Essential oil composition of *Artemisia stelleriana* Besser from India" Rajendra C. Padalia, Ram S. Verma, Amit Chauhan, Prakash Goswami, Chandan S. Chanotiya. **J. Essent. Oil Res.** **2016**, 28(5), 400-405. DOI: 10.1080/10412905.2016.1175978

114. "First report of *Glycyrrhiza glabra* root rot and collar rot caused by Binucleate *Rhizoctonia* (BNR) AG-A from India" A Saroj, R Maurya, AK Srivastava, A Samad and CS Chanotiya. **Plant Disease** **2016** (August) 100(8), 1782. doi.org/10.1094/PDIS-02-16-0204-PDN

115. "Genetic elaborations of glandular and non-glandular trichomes in *Mentha arvensis* genotypes: assessing genotypic and phenotypic correlations along with gene expressions." Anand Mishra, RK Lal, CS Chanotiya and SS Dhawan. **Protoplasma**, **2017 (March)**; 254(2), 1045-1061. doi: 10.1007/s00709-016-1011-x.

√**116.** "Enantioselective GC Analysis of C3–Oxygenated p-Menthane type Indian *Mentha spicata* var. *viridis* 'Ganga' Essential Oil." Pragadheesh V. Shanmugam, Arvind Saroj, Ranjana Maurya, Anju Yadav, Namita Gupta, Abdul Samad and CS Chanotiya. **Natural prod Commun.** **2017**, 12(3), 427-430.

117. "Transcriptomic insight into terpenoid and carbazole alkaloid biosynthesis, and functional characterization of two terpene synthases in curry tree (*Murraya koenigii*)" Seema Meena, Sarma Rajeev Kumar, Varun Dwivedi, Anup Kumar Singh, Chandan Singh Chanotiya, Md Qussen Akhtar, Krishna Kumar, Ajit Shasany and Dinesh Nagegowda. **Scientific Reports**, **2017**; 7:44126 (1-14). doi: 10.1038/srep44126.

118. "Two CYP716A subfamily cytochrome P450 monooxygenases of sweet basil play similar but non-redundant roles in ursane- and oleanane-type pentacyclic triterpene biosynthesis." RC Misra, Shubha Sharma, Sandeep, Anchal Garg, CS Chanotiya and Sumit Ghosh. **New Phytologist**, **2017 (April)**, 214(2), 706–720. doi: 10.1111/nph.14412

(This paper received an award of best publication (Biotechnology) in CSIR-CIMAP annual day in the year 2018)

119. "ACC deaminase-containing plant growth promoting rhizobacteria protect *Papaver somniferum* from downy mildew." Deepti Barnawal, Shiv Pandey, Nidhi Bharti, Alok Pandey, Tania Ray, Sucheta Singh, CS Chanotiya and Alok Kalra. **Journal of Applied Microbiology**, 122(5), May 2017, 1286–1298. DOI information: 10.1111/jam.13417

√**120.** "Scent from *Jasminum grandiflorum* flowers: Investigation of the change in linalool enantiomers at various developmental stages using chemical and molecular methods." VS Pragadheesh, **CS Chanotiya**, Shubhra Rastogi and Ajit K. Shasany. **Phytochemistry**, **2017**, 140, 83–94. DOI information:: **10.1016/j.phytochem.2017.04.018**

(This paper received an award of best publication (Chemical Sciences) in CSIR-CIMAP annual day in the year 2018)

121. "Chemically characterized *Mentha cardica* L. essential oil as plant based preservative in view of efficacy against biodeteriorating fungi of dry fruits, aflatoxin secretion, lipid peroxidation and safety profile assessment." Abhishek Kumar Dwivedy, Bhanu Prakash, Chandan Singh Chanotiya, Deepa Bisht and Nawal Kishore Dubey. **Food and Chemical Toxicology**, August **2017**, 106, Part A, 175–184.

122. "Essential Oil Composition and Antimicrobial Activity of Methyl cinnamate-Linalool Chemovariant of *Ocimum basilicum* L. from India." RC Padalia, RS Verma, A Chauhan, P Goswami, VR Singh, SK Verma, MP Darokar, Alka Kurmi, Nandan Singh, D Saikia, **Chandan Singh Chanotiya**. **Rec. Nat. Prod.** **2017**, 11:2, 193-204.

- 123.** “Chemical and genetic stability of methyl chavicol-rich Indian basil (*Ocimum basilicum* var. CIM-Saumya) micropropagated in vitro.” M. Kumari, D. Agnihotri, **C.S.Chanotiya**, A.K.Mathur, R.K.Lal and A. Mathur. **South African Journal of Botany**, 113, November 2017, 186-191. DOI information: <https://doi.org/10.1016/j.sajb.2017.08.018>
- 124.** “Plant growth-promoting rhizobacteria enhance wheat salt and drought stress tolerance by altering endogenous phytohormone levels and TaCTR1/TaDREB2 expression.” Deepti Barnawal, Nidhi Bharti, SS Pandey, Alok Pandey, **CS Chanotiya** and Alok Kalra. **Physiolosia Plantarum**, 161(4), Dec 2017, 502–514. DOI information:: <https://doi.org/10.1111/ppl.12614>
- 125.** “Chemical Composition and Antibacterial Activity of *Melaleuca bracteata* Essential Oil from India: A Natural Source of Methyl Eugenol.” Prakash Goswami, SK Verma, A Chauhan, Venkatesha KT, RS Verma, VR Singh, MP Darokar, Chandan S. Chanotiya, Rajendra C. Padalia. **Natural prod Commun.** **2017 (December)**, 12(6), 965-968.
- 126.** “Phenotypic stability, genotype × environmental interactions, and cultivar recommendations for essential oil yield in khus aromatic grass (*Chrysopogon zizanioides* Roberty).” Raj Kishori Lal, C.S, Chanotiya, Pankhuri Gupta, Sougata Sarkar, Smita Singh, Ranjana Maurya, Shubham Srivastva, Pramod Kumar Chaudhary. **Industrial Crops and Products**, 111, **2018**, 871-877. DOI information: **10.1016/j.indcrop.2017.11.003**
- 127.** “The essential oil from *Citrus limetta* Risso peels alleviates skin inflammation: In-vitro and in-vivo study.” Anil Kumar Maurya, Shilpa Mohanty, Anirban Pal, C.S. Chanotiya, D.U. Bawankule. **Journal of Ethnopharmacology**, 212, 15 February 2018, 86-94. DOI information: [10.1016/j.jep.2017.10.018](https://doi.org/10.1016/j.jep.2017.10.018)
- 128.** “*Zingiber zerumbet* (L.) Roscoe ex Sm. from northern India: Potential source of zerumbone rich essential oil for antiproliferative and antibacterial applications. Rajendra C. Padalia, RS Verma, A Chauhan, VR. Singh, P Goswami, S Singh, SK Verma, S Luqman, Chandan S. Chanotiya, MP Darokar. **Industrial Crops and Products**, 112, **February 2018**, 749-754. DOI information: [10.1016/j.indcrop.2018.01.006](https://doi.org/10.1016/j.indcrop.2018.01.006)
- 129.** “Stable variety selection over locations and recommendations for rose-scented geranium (*Pelargonium graveolens* L’ Herit. ex Aiton.)” VR Singh, RS Verma, RK Upadhyay, RK Lal, RC Padalia, CS Chanotiya and Nilofer. **J Essent Oil Res.** 2018, 30(1) 32–39. DOI information: <https://doi.org/10.1080/10412905.2017.1383315>
- 130.** “Genetic and chemotypic variability in basil (*Ocimum basilicum* L.) germplasm towards future exploitation.” Abhilasha Srivastava, A.K.Gupta, Sougata Sarkar, R.K.Lal, Anju Yadav, Pankhuri Gupta and C.S.Chanotiya. **Industrial Crops and Products**, **2018**, 112, 815-820. DOI information: <https://doi.org/10.1016/j.indcrop.2018.01.009>
- 131.** “Optimization of harvesting and post-harvest drying methods of *Ocimum africanum* Lour. for production of quality essential oil”. Rajendra C Padalia, Ved R Singh, Gunjan Bhatt, Amit Chauhan, RK Upadhyay, Ram S Verma, Chandan S Chanotiya. **J Essent. Oil Res.** **2018**, 30(6), 437-443. <https://doi.org/10.1080/10412905.2018.1495110>
- 132.** “Genetic diversity, essential oil composition, and in vitro antioxidant and antimicrobial activity of *Curcuma longa* L. germplasm collections.” Ritu Mishra, Anil K Gupta, Ajay Kumar, Raj K Lal, D Saikia, Chandan S Chanotiya. **Journal of Applied Research on Medicinal and Aromatic Plants (JARMAP)**, (**September 2018**), 10, 75-84. <https://doi.org/10.1016/j.jarmap.2018.06.003>

133. "Registration of variety: CIM-Snigddha: A methyl cinnamate rich and high essential oil yielding variety of French basil (*Ocimum basilicum*)" RK Lal, **CS Chanotiya** et al., *Journal of Medicinal and Aromatic Plant Sciences* 39(2-4), 2017; 125-129.
134. "Registration of variety: CIM-Surabhi: A linalool rich, high essential oil yielding variety of sweet basil (*Ocimum basilicum*)" RK Lal, AK Shasany, Smita Singh, S Sarkar, VR Singh, **CS Chanotiya** et al., *Journal of Medicinal and Aromatic Plant Sciences* 39(2-4), 2017; 130-134.
135. "Registration of a high-yielding khusilal [nor-sesquiterpene (C₁₄) aldehydes] rich variety CIM-Samridhhi of vetiver (*Chrysopogon zizanioides* (L.) Nash." RK Lal, **CS Chanotiya** et al., *Journal of Medicinal and Aromatic Plant Sciences* 39(2-4), 2017; 139-144.
136. "Registration of high citral rich essential oil yielding variety-CIM Jyoti of *Ocimum africanum*." RK Lal, AK Shasany, VR Singh, AK Gupta, Smita Singh, S Sarkar, **CS Chanotiya** et al., *Journal of Medicinal and Aromatic Plant Sciences* 39(2-4), 2017; 135-138.
137. "Genetic diversity and chemotype selection in genus *Ocimum*." Smita Singh, R.K. Lal, Ranjana Maurya, C.S. Chanotiya." **J Applied Research Medicinal and Aromatic Plants**, 2018, 9, 19-25. DOI information: 10.1016/j.jarmap.2017.11.004
138. "Genotypic and Morphological Appearance of the Traits in Relation to Genetic Diversity of Essential Oil Yield in Vetiver Grass (*Chrysopogon zizanioides* Roberty). RK Lal, CS Chanotiya, SS Dhawan, Pankhuri Gupta, S Sarkar. **Acta Scientific Agriculture** 2018 2(8), 62-72.
139. "Chemical composition and skin inflammation protective profile of pulegone rich essential oil of *Mentha arvensis* L." Anil Kumar Maurya, Janak Raj Bahl, Anju Yadav, Om Prakash, Archana Saxena, Anirban Pal, Chandan Singh Chanotiya, Feroz Khan, Dnyaneshwar Umrao Bawankule. **Indian Journal of Experimental Biology**, 2019, 57(03), 168-174.
140. "RNAi of Sterol Methyl Transferase1 Reveals its Direct Role in Diverting Intermediates Towards Withanolide/Phytosterol Biosynthesis in *Withania somnifera*." Shaifali Pal, Shubhra Rastogi, Dinesh A Nagegowda, Madan Mohan Gupta, Ajit Kumar Shasany, Chandan Singh Chanotiya. **Plant and Cell Physiology**, 2019, 60(3), 672-686. <https://doi.org/10.1093/pcp/pcy237>
141. "Essential oil composition of leaves and inflorescences of *Elsholtzia densa* Benth. from western Himalaya." Amit Chauhan, KT Venkatesha, Rajendra C Padalia, Ved R Singh, Ram S Verma, Chandan S Chanotiya. **J Essent. Oil Res.** 2019, 31(3), 217-222. <https://doi.org/10.1080/10412905.2018.1545706>
142. "Oxidosqualene cyclase and CYP716 enzymes contribute to the triterpene structural diversity in the medicinal tree banaba." Sandeep; Rajesh Misra; CS Chanotiya, Pradipto Mukhopadhyay and Sumit Ghosh. **New Phytologist**, 2019, 222(1), 408-424.
143. "Application of essential oils as a natural and alternate method for inhibiting and inducing the sprouting of potato tubers." Samvedna Shukla, Shiv Shanker Pandey, Muktesh Chandra, Alok Pandey, Nidhi Bharti, Deepti Barnawal, Chandan Singh Chanotiya, Sudeep Tandon, Mahendra Pandurang Darokar, Alok Kalra. **Food Chemistry**, 2019, 284, 171-179. <https://doi.org/10.1016/j.foodchem.2019.01.079>
144. "Induced polygenic variations through γ -rays irradiation and selection of novel genotype in chamomile (*Chamomilla recutita* [L.] Rauschert)" RK Lal, CS chanotiya, VR Singh, SS Dhawan, P Gupta, S Shukla and A Mishra. **International Journal of Radiation Biology** 2019, 95(9), 1242-1250. <https://doi.org/10.1080/09553002.2019.1625460>

√145. "Antifungal action of *Lippia alba* essential oil in *Rhizoctonia solani* disease management." A Saroj, **CS Chanotiya**, R Maurya, VS Pragadheesh, A Yadav and A Samad. **SN Appl. Sci.** (2019) 1: 1144. <https://doi.org/10.1007/s42452-019-1207-8>.

√146. "Enantiomer differentiation of α - and β -pinene in *Limonia acidissima* essential oil and its antifungal activity." Ranjana Maurya, Arvind Saroj, Anju Yadav, SC Singh, A Samad and CS Chanotiya. **Journal of Medicinal and Aromatic Plant Sciences** 2019, 41(1-4), 58-63.

147. "Valorization of coriander (*Mentha arvensis*) distilled waste." Deepak Kumar, Prashant Kumar, PK Sharma, AD Nannaware, CS Chanotiya, P Mohapatra and PK Rout. **Journal of Medicinal and Aromatic Plant Sciences** 2019, 41(1-4), 50-57.

148. "On carbon sequestration efficient clones/genotypes selection for high essential oil yield over environments in Khus (*Chrysopogon zizanioides* (L.) Roberty)." Raj Kishori Lal, Ranjana Maurya, CS Chanotiya, Pankhuri Gupta, Anand Mishra, Shubham Srivastava, Anju Yadav, Sougata Sarkar, Yatish Pant, Shiv Shanker Pandey and Shama Shukla. **Industrial Crops & Products** 145 (2020) 112139. DOI: <https://doi.org/10.1016/j.indcrop.2020.112139>

149. "Transcriptome analysis and functional characterization of oxidosqualene cyclases of the arjuna triterpene saponin pathway." Gaurav Srivastava, Sandeep, Anchal Garg, Rajesh Misra, Chandan S Chanotiya and Sumit Ghosh. **Plant Science, Volume 292, March 2020, 110382**. DOI: <https://doi.org/10.1016/j.plantsci.2019.110382>

150. "Registration of a new variety of chamomile (*Chamomilla recutita* (L.) Rauschert) **CIM-Ujjwala**: A novel source of acetylinic compound [(2Z,8Z)-matricaria acid methyl ester] for use in cosmetics and Pharmaceuticals." VR Singh, RK Lal, CS Chanotiya et al., **Journal of Medicinal and Aromatic Plant Sciences** 2019, 41(1-4), 72-78.

151. "**CIM-Utkrisht**: A high essential oil yielding variety of patchouli (*Pogostemon cablin* (Blanco) Benth) with a unique aroma suitable for cultivation under North Indian conditions." VR Singh, RK Lal, **CS Chanotiya** et al., **Journal of Medicinal and Aromatic Plant Sciences** 2019, 41(1-4), 79-85.

152. "Registration of a new variety of basil - **CIM Shishir**: A muticut, lodging resistant, cold tolerant, high essential oil yielding, linalool rich interspecific hybrid of *Ocimum*." SS Dhawan, RK Lal, P. Gupta, CS Chanotiya, et al., **Journal of Medicinal and Aromatic Plant Sciences** 2019, 41(1-4), 86-91.

√153. "Chiral differentiation of terpenoids in bergamot mint (*Mentha citrata*) cultivar Kiran: A non-menthol mint essential oil." Pragadheesh VS, Anju Yadav, Chandan S Chanotiya. **Journal of Medicinal and Aromatic Plant Sciences** 2020, 42(1-2), 138-144.

154. "A quinoline alkaloid rich *Quisqualis indica* floral extract enhances the bioactivity." PK Rout, P Kumar, Y. Ramachandra Rao, Anant Kumar, DU Bawankule, Ruchi Singh, KB Singh, **Chandan Singh Chanotiya** and S.N. Naik. **Natural Product Research** 2021, 35 (10), 1632-1638. <https://doi.org/10.1080/14786419.2019.1634709>

155. "Engineering a carotenoid-overproducing strain of *Azospirillum brasilense* for heterologous production of geraniol and amorphaadiene." Shivangi Mishra, Parul Pandey, Ashutosh Dubey, Aafreen Zehra, Chandan Singh Chanotiya, Anil Kumar Tripathi, Mukti N Mishra. **Applied and environment Microbiology**, 2020, 86(17), e00414-20. <https://doi.org/10.1128/AEM.00414-20>

√156. "Cyclodextrin-based Gas Chromatography and GC/MS methods for determination of chiral pair constituents in mint essential oils." CS Chanotiya, VS Pragadheesh, Anju Yadav,

Pankhuri Gupta, Raj K Lal. J Essent. Oil Res, **2021**. 33(1), 23-31. doi: **10.1080/10412905.2020.1835744**.

157. "Anti-psoriatic effect of *Lavandula angustifolia* essential oil and its major components linalool and linalyl acetate." Vineet Kumar Rai, Priyam Sinha, Kuldeep Singh Yadav, Aparna Shukla, Archana Saxena, Dnyaneshwar Umrao Bawankule, Sudeep Tandon, Feroz Khan, Chandan Singh Chanotiya, Narayan Prasad Yadav. **Journal of Ethnopharmacology**, **2020**, 261, 113127. <https://doi.org/10.1016/j.jep.2020.113127>

158. "Induced mutation breeding for qualitative and quantitative traits and varietal development in medicinal and aromatic crops at CSIR-CIMAP, Lucknow (India): past and recent accomplishment." Raj K Lal, CS Chanotiya, Pankhuri Gupta. **International Journal of Radiation Biology**, **2020**, 96 (12), 1513-1527. <https://doi.org/10.1080/09553002.2020.1834161>

159. "Chemical characterization of winged bean (*Psophocarpus tetragonolobus* (L.) DC. seeds and safety evaluation of its fatty oil." Chandra Sekhar Mohanty, Naziya Syed, Deepak Kumar, Sonam Khare, Sagar Prasad Nayak, Kunwar Sarvendra, Rojalin Pattanayak, Anirban Pal, Chandan Singh Chanotiya, Prasant Kumar Rout. **Journal of Food Measurement and Characterization**, **2021**, 15, 807–816. <https://doi.org/10.1007/s11694-020-00680-1>

160. "Cold stress alleviation using individual and combined inoculation of ACC deaminase producing microbes in *Ocimum sanctum*." Suman Singh, Arpita Tripathi, Chandan Singh Chanotiya, Deepti Barnawal, Pooja Singh, Vikas Kumar Patel, Poornima Vajpayee, Alok Kalra. **Environmental Sustainability**, **2020**, 3, 289–301. <https://doi.org/10.1007/s42398-020-00118-w>

161. "Influence of Harvesting Frequency on Essential Oil Yield and Composition of Geraniol-Rich Cultivar of *Cymbopogon flexuosus* L." RC Padalia, RK Upadhyay, Amit Chauhan, VR Singh, RS Verma, CS Chanotiya. **National Academy Science Letters**, **2021**, 44, 383–388. <https://doi.org/10.1007/s40009-020-01015-w>

162. "Genetics of essential oil yield and their component traits in vetiver (*Chrysopogon zizanioides* (L.) Roberty)." RK Lal, Pankhuri Gupta, CS Chanotiya, A Mishra, Ranjana Maurya. *Journal of Medicinal Plants Studies*, **2020**, 8(4), 56-64.

163. "Quality assessment of menthofuran rich essential oil of *Mentha piperita* (CIMAP-PATRA) stored at different temperatures and containers." KP Singh Nilofer, Kirti Verma, D Kumar, Anil Kumar, P Khare Singh, CS Chanotiya, Saudan Singh. *Journal of Pharmacognosy and Phytochemistry*, **2020**, 9(5), 1603-1610. DOI: <https://doi.org/10.22271/phyto.2020.v9.i5w.12563>

164. "Diversity of essential oil-secretory cells and oil composition in flowers and buds of *Magnolia sirindhorniae* and its biological activities." Dipayan Ghosh, Neha Choudhary, KM. Uma Kumari, Jyoti Singh, Prakhar Tripathi, Abha Meena, Suaib Luqman, Anju Yadav, **CS Chanotiya**, Gyanesh Pandey, Narendra Kumar. **Chemistry and Biodiversity**, **2021**, 18, e2000750. <https://doi.org/10.1002/cbdv.202000750>

165. "CIM-Unnati: An essential oil rich variety of menthol mint (*Mentha arvensis* L.). Venkatesha KT et al., **Journal of Medicinal and Aromatic Plant Sciences**, **2020**, 42(1-2), 73-79.

166. "Essential oils their quality assurance, management and stakes of CSIR-CIMAP (India): past and future perspective." RK Lal, CS Chanotiya, P Gupta, D Bisht, A Mishra, **Journal of Medicinal and Aromatic Plant Sciences**, **2020**, 42(3-4), 181-199.

167. "Estimation of intra-specific genetic variability and half-sib family selection using AMMI (Additive Main Effects and Multiplicative Interactions) model in menthol mint (*Mentha arvensis* L.)." RK Lal, CS Chanotiya, SS Dhawan, P Gupta, A Mishra, S Srivastava, S Shukla, R Maurya, **Journal of Medicinal and Aromatic Plant Sciences**, 2020, 42(1-2), 102-113.

168. "Genotype selection over years using additive main effects and multiplicative interaction (AMMI) model under the ascendancy of genetic diversity in the genus *Ocimum*." P. Gupta, S.S. Dhawan, R.K. Lal, C.S. Chanotiya, A. Mishra, **Industrial Crops & Products** **2021**, 161, 113198.

169. "Characterization of carotenoids and genes encoding their biosynthetic pathways in *Azospirillum brasilense*." Shivangi Mishra, Chandan Singh Chanotiya, Karuna Shanker, Anil Kumar Tripathi, **FEMS Microbiology Letters**, 2021, 368(5), fnab025, <https://doi.org/10.1093/femsle/fnab025>

170. "Genetic improvement of pyrethrum (*Tanacetum cinerariifolium* Sch. Bip.) through gamma radiation and selection of high yield stable mutants through seven post-radiation generations. RK Lal, CS Chanotiya, P Gupta, A Mishra, MM Gupta, **International Journal of Radiation Biology**, **2021**. 97(3), 386-393. <https://doi.org/10.1080/09553002.2021.1864050>.

171. "Genetic variability and stability pattern in vetiver (*Chrysopogon zizanioides* (L.) Roberty)." Raj Kishori Lal, Chandan Singh Chanotiya, Pankhuri Gupta, Anand Mishra, Subham Srivastava Anju Yadav and Deepa Bisht, **Acta Ecologica Sinica**, **2021**. Online June 08, 2021. <https://doi.org/10.1016/j.chnaes.2021.06.004>

172. "Delineating photosynthesis, essential oil yield performance, and their component traits under genotype × traits × environments interactions in *Ocimum* genotypes." R.K. Lal, Pankhuri Gupta, S. Srivastava, **C.S. Chanotiya**, A. Mishra, A. Yadav, R. Maurya. **South Afr. J Botany**, **2021**, 141, 54-65. <https://doi.org/10.1016/j.sajb.2021.03.039>.

173. "Multi-years/environmental evaluation for high photosynthetic, bio-efficient and essential oil genotypes selection in the breeding of vetiver (*Chrysopogon zizanioides* (L.) Roberty) crop." RK Lal, CS Chanotiya, P Gupta, A Mishra, D Bisht, R. Maurya, S. Srivastava and Yatish Pant, **J Essent Oil Res.**, **2021**, 33(5), 471-487. <https://doi.org/10.1080/10412905.2021.1917459>.

174. "Inhibitory effect of cinnamon (*Cinnamomum tamala* (Buch.-Ham.) T. Nees & Eberm.) essential oil and its aldehyde constituents on growth and spore germination of phytopathogenic fungi." D Bisht, A Saroj, A Durgapal, CS Chanotiya, A Samad. Trends in Phytochemical Research, **2021**, 5(2), 62-70. doi: 10.30495/tpr.2021.1914085.1184; Islamic Azad University, Shahrood Branch Press.

175. "BAHD acetyltransferase contributes to wound-induced biosynthesis of oleo-gum resin triterpenes in *Boswellia*." Aashish Kumar, Payal Srivastava, Gaurav Srivastava, Sandeep, Narendra Kumar, Chandan S. Chanotiya, Sumit Ghosh. **The Plant Journal**, **2021**, 107(5), 1403-1419. <https://doi.org/10.1111/tpj.15388>. Society for Experimental Biology

(This paper received an outstanding Research Publication Award, 2021 (Biotechnology DU3) in CSIR-CIMAP annual day in the August 22, 2022)

176. "UGT86C11 is a novel plant UDP-glycosyltransferase involved in labdane diterpene biosynthesis" Payal Srivastava, Anchal Garg, Rajesh Chandra Misra, **CS Chanotiya**, Sumit Ghosh. **J Biological Chemistry**, 297(3), 2021, 101045. <https://doi.org/10.1016/j.jbc.2021.101045>

√ 177. "Chemical diversity of essential oil among basil genotypes (*Ocimum viride* Willd.) across the years." Shubham Srivastava, R.K. Lal, Ranjana Maurya, Anand Mishra, Anju Kumari Yadav, Gyanesh Pandey, P.K. Rout and **C.S. Chanotiya**. **Industrial Crops & Products** **173 (2021) 114153**. <https://doi.org/10.1016/j.indcrop.2021.114153>

(This paper received an outstanding Research Publication Award, 2021 (Phytochemistry DU1) in CSIR-CIMAP annual day in the August 22, 2022)

178. "Patchouli (*Pogostemon cablin* (Blanco) Benth) essential oil yields stability with unique aroma of ar-curcumene and genotype selection over the years." R.K. Lal, CS Chanotiya, VR Singh, P Gupta, A Mishra, S Srivastava, A Dwivedi. **Acta Ecologica Sinica**, **2021**, Available online 6 September 2021. <https://doi.org/10.1016/j.chnaes.2021.08.016>

Version of Record 21 April 2023 Volume 43, Issue 3, June 2023, Pages 439-451

179. "The pre-eminence of agro-parameters and chemical constituents in the influence of harvest interval by traits × environment interaction over the years in lemon-scented basil (*Ocimum africanum* Lour.)" A. Kumar, R.K. Lal, CS Chanotiya, A Dwivedi. **Industrial Crops & Products** **172 (2021) 113989**. <https://doi.org/10.1016/j.indcrop.2021.113989>

(This paper received an outstanding Research Publication Award, 2021 (Plant Breeding & Genetic Resource Conservation DU 5) in CSIR-CIMAP annual day in the August 22, 2022)

180. "Biplot analysis in advanced generation lines for the nutritional quality of leaves and essential oil yield in vetiver (*Chrysopogon zizanioides* L. Roberty)." R.K.Lal, A Mishra, CS Chanotiya, Pankhuri Gupta, S Srivastava, et al., **Acta Ecologica Sinica**, **2021**, Available online 16 October 2021. <https://doi.org/10.1016/j.chnaes.2021.10.003>

181. "Productivity and quality of *Cymbopogon martinii* (Roxb.) Wats. as influenced by harvesting at different phenological stages." Nilofer, Anil Kumar Singh, Parminder Kaur, Devendra Kumar, Kirti Verma, Rakesh Kumar, T.M. Anandakumar, C.S.Chanotiya and SaudanSingh. **Industrial Crops and Products**, **2021**, 174, 114215 (December 2021). <https://doi.org/10.1016/j.indcrop.2021.114215>

182. "Biplot investigation for essential oil yield and chemical compositions under the Deccan Plateau region of southern India in cultivars of Java citronella (*Cymbopogon winterianus* Jowitt)." A Kumar, AC Jnanasha, RK Lal, CS Chanotiya, Shubham Srivastava, Yatish Pant. **Industrial Crops & Products** **175 (2022) 114249**. <https://doi.org/10.1016/j.indcrop.2021.114249>

√183. "Mega-environment investigation based on the GGE biplot and genotype selection for high essential oil yield in vetiver grass (*Chrysopogon zizanioides* L. Roberty)." RK Lal, CS Chanotiya, A. Mishra. **Acta Ecologica Sinica**, **2022**, Online January 23, 2022. <https://doi.org/10.1016/j.chnaes.2022.01.002>

184. "Evaluation of yield and agronomic components by triallel cross and selection of high essential oil yielding hybrids in Basil." R.K.Lal, P. Gupta, A Mishra, CS Chanotiya. **Industrial Crops and Products**, **2022**, 177, 114486. <https://doi.org/10.1016/j.indcrop.2021.114486>

√185. "Investigation of Monoterpenoids rich Essential Oils of two *Ocimum basilicum* L. Varieties at different agro-climatic conditions in India." Ranjana Maurya, Pankhuri Gupta, **CS Chanotiya**, SS Dhawan, Shubham Srivastava, Anju Yadav, A Kumar, Yvvs Swamy, RK Lal, **Acta Ecologica Sinica**, **2022**, 42, 2, 1-10. doi.org/10.1016/j.chnaes.2020.11.002.

186. “Eco-friendly solar distillation apparatus for improving the yield of essential oils with enhancing organoleptic characteristics.” Ashween Deepak Nannaware, Ch Mohan Sai Kumar, Shubham Srivastava, Suman Singh Manglesh Kumar Gupta, Prasanta Kumar Rout, **CS Chanotiya**, R.K.Lal, Yogesh Nimdeo, Saumendu Roy, **Renewable Energy**, **2022**, 191, 345-356. <https://doi.org/10.1016/j.renene.2022.03.147>

187. “A combination of linalool and linalyl acetate synergistically alleviates imiquimod-induced psoriasis-like skin inflammation in BALB/c mice.” VK Rai, D Chanda, CS Chanotiya, NP Yadav, **Frontiers in Pharmacology, section Ethnopharmacology**, **2022**, 13:913174. <https://doi.org/10.3389/fphar.2022.913174>

√**188.** “Chemical composition of phenylpropanoid rich chemotypes of *Ocimum basilicum* L. and their antimicrobial activities.” Shubham Srivastava, RK Lal, Kamlesh Yadav, Yatish Pant, Laldingngethi Bawitlung, Prashant Kumar, Anand Mishra, Pankhuri Gupta, Anirban Pal, P.K. Rout and **CS Chanotiya. Industrial Crops and Products**, **2022**, **183**, **1 September 2022**, **114978**. <https://doi.org/10.1016/j.indcrop.2022.114978>

189. “Stable genotypes selection in industrially important rose-scented *Rosa* grass (*Cymbopogon martinii* [Roxb.] Wats. var. *motia* Burk.)” A Kumar, RK Lal, AC Jnanesha, **CS Chanotiya, Industrial Crops and Products**, **2022**, **187**, **Part B**, **1 November 2022**, **115497**. <https://doi.org/10.1016/j.indcrop.2022.115497>

190. “Influences of traits associations for essential oil yield stability in multi-environment trials of vetiver (*Chrysopogon zizanioides* L. Roberty).”

RK Lal, CS Chanotiya, P Gupta, A Mishra. **Biochemical Systematics and Ecology**, **2022**, 103, 104448. <https://doi.org/10.1016/j.bse.2022.104448>.

191. “Genetic variability and stability pattern in vetiver (*Chrysopogon zizanioides* (L.) Roberty).” RK Lal, CS Chanotiya, P Gupta, Anand Mishra, Subham Srivastava, A Yadav, Deepa Bisht, **Acta Ecologica Sinica**, **2022**, 42, (3), 233-242. <https://doi.org/10.1016/j.chnaes.2021.06.004>

192. “An Innovative *Prosopis cineraria* Pod Aqueous Waste as Natural Inhibitor for Enhancing Unsaturated Lipids Production in Yeast Cell Using Banana Peel.” Shivani Chaturvedi, Prashant Kumar, Deepak Kumar, Naziya Syed, Madhuri Gupta, Chandan Singh Chanotiya, Prasant Kumar Rout & Sunil Kumar Khare. **Waste and Biomass Valorization**, **2022**, 13, 3113–3126. <https://doi.org/10.1007/s12649-022-01741-w>

√**193.** “Chemical investigation and biological activities of Patchouli (*Pogostemon cablin* (Blanco) Benth) essential oil.” Shubham Srivastava, RK Lal, VR Singh, PK Rout, RC Padalia, Anju Kumari Yadav, Laldingngethi Bawitlung, Divya Bhatt, Anil K. Maurya, A. Pal, D.U. Bawankule, Anand Mishra, P. Gupta, **CS Chanotiya. Industrial Crops and Products**, **2022**, 188, Part A, **15 November 2022**, 115504. <https://doi.org/10.1016/j.indcrop.2022.115504>

194. “Volatile Compounds Governed by Single Recessive Gene Impart Aroma in Sponge Gourd (*Luffa cylindrica* L. Roem).” Tribhuvan Chaubey, Vidya Sagar, Ramesh Kumar Singh, Chandan Singh Chanotiya, Sudhakar Pandey, Prabhakar M Singh, Pradip Karmakar, Jagdish Singh, Bijendra Singh, Dhananjay Pratap Singh, Koshlendra Kumar Pandey, Tusar Kanti Behera. **Plants** **2022**, 11(21), 2881. <https://doi.org/10.3390/plants11212881>

195. “Green and proficient process for industrial-scale preparation of *Gymnema sylvestre* standardized-extract enriched with Gymnemic acids through polymer-matrix-adsorption to reduce hyperglycemia” Deepak Kumar, Vipin Kumar Singh, Narayan Prasad Yadav, Sudeep Tandon, Karuna Shanker, Chandan Singh Chanotiya, Narendra Kumar, Puja Khare, Anirban

Pal, Debabrata Chanda, Dharmendra Saikia, Yusuf Hussain, Abha Meena, Sunita Singh Dhawan, Prasanta Kumar Rout. **Journal of Industrial and Engineering Chemistry**, 2022 (December), 116, 25, 229-238. <https://doi.org/10.1016/j.jiec.2022.09.013>

196. "Geraniol-rich aromatic grasses (*Cymbopogon* Spreng) can adapt to the environment by modifying harvest dates over the ecosystems in southern India on the Deccan plateau utilizing participatory management modeling and agronomic practices." A. Kumar, RK Lal, CS Chanotiya. **Industrial Crops and Products**, 2023 (March), 193, 116196. <https://doi.org/10.1016/j.indcrop.2022.116196>

197. "Solar energy: A promising renewable source for meeting energy demand in Indian agriculture applications." Ch Mohan Sai Kumar, Suman Singh, Manglesh Kumar Gupta, Yogesh M Nimdeo, Ravi Raushan, Ankit V Deorankar, TM Ananda Kumar, Prasant Kumar Rout, CS Chanotiya, Vinod D Pakhale, Ashween Deepak Nannaware. **Sustainable Energy Technologies and Assessments** 2023 (February) 55, 102905. <https://doi.org/10.1016/j.seta.2022.102905>

198. "Precision agriculture innovation focuses on sustainability using GGE biplot and AMMI analysis to evaluate GE interaction for quality essential oil yield in *Eucalyptus citriodora* Hook." A Kumar, AC Jnanesha, RK Lal, CS Chanotiya, Venugopal S, Y.V.V.S. Swamy. **Biochemical Systematics and Ecology**, 2023 (April), 107, 104603. <https://doi.org/10.1016/j.bse.2023.104603>

199. "Eminent high essential oil yielding and photosynthesis efficient genotype selection across multi-environments in the palmarosa {*Cymbopogon martinii* (Roxb.) Wats.}." RK Lal, P. Gupta, CS Chanotiya, Anand Mishra, A Kumar, **Ecological Genetics and Genomics**, 2023 (June), 27, 100167. <https://doi.org/10.1016/j.egg.2023.100167>. **Online Feb. 8, 2023**

200. "The nature and extent of heterosis, combining ability under the influence of character associations, and path analysis in Basil (*Ocimum basilicum* L.). RK Lal, Pankhuri Gupta, C.S. Chanotiya, Anand Mishra, A Kumar. **Industrial Crops and Products**, 2023 (May), 195, 116421. <https://doi.org/10.1016/j.indcrop.2023.116421>

201. "Exploitation of Liquid CO₂ Based Greener Process for Valorization of Citronellal-Rich Essential Oils Into Flavor Grade (-)-Menthol Using Novel Sn/Al-B-NaYZE Composites." Prashant Kumar, Chandan Singh Chanotiya, Laldingngheti Bawitlung, Anju Yadav, Pankaj Kumar, Anirban Pal, Ajit Kumar Shasany, Priyabrat Mohapatra, Prasant Kumar Rout. **Waste Biomass Valor** 2022 (November). <https://doi.org/10.1007/s12649-022-01984-7>

202. "Synthesis of Ni-Doped Hydrotalcite Catalyst Through Hydrothermal Process for the Selective Reduction of α , β -Unsaturated Aldehyde (Citral) to Enantiospecific (+)-Citronellal." Prashant Kumar, Praveen Kumar Sharma, Shivani Chaturvedi, Chandan Singh Chanotiya, Prema Ranjan Rauta, Priyabrat Mohapatra, Prasant Kumar Rout. **Catal Lett** 2022. <https://doi.org/10.1007/s10562-022-04195-w>

203. "Green production of biologically active Ag and Ag-Cu nanoparticles from *Prosopis cineraria* pod waste extract and their application in epoxidation." Prashant Kumar, Praveen Kumar Sharma, Shivani Chaturvedi, Suman Singh, Shreya Tripathi, Huma Fatima, Minakshi Grover, Priyabrat Mohapatra, Chandan Singh Chanotiya, Prasant Kumar Rout. **Research on Chemical Intermediates** 2023 (November), 49, 557-575. <https://doi.org/10.1007/s11164-022-04887-3>

√ 204. "Transcriptome and metabolome analysis of sesquiterpene Diversity in Indian Vetiver (*Chrysopogon zizanioides* L. Roberty)." Ranjana Maurya, Pallavi Yadav, Ram Krishna, Pallavi Kulkarni, Shubhra Rastogi, Soumyajit Mohapatra, Shubham Srivastava, Mohammad Qussen

Akhtar, Abhishek Kumar Shukla, Harmesh Singh Chauhan, Rajesh Kumar Verma, Chandan Singh Chanotiya, Ajit Kumar Shasany

Industrial Crops and Products, **2023**, 200, Part B, 116798.
<https://doi.org/10.1016/j.indcrop.2023.116798>

205. “Regulating the catalytic activities of Ni and Pd through doping on Fe₂O₃HT for selective hydrogenation of conjugated aldehyde (citral) in lemongrass essential oil to organoleptically superior monoterpene alcohols (geraniol/nerol).” Prashant Kumar, Chandan Singh Chanotiya, Laldingngheti Bawitlung, Anju Yadav, Pankaj Kumar, Anirban Pal, Ajit Kumar Shasany, Priyabrat Mohapatra, Prasant Kumar Rout.

Applied Catalysis A, General, **2023**, 661, 119236.
<https://doi.org/10.1016/j.apcata.2023.119236>

Accepted

206. “The potential of Sn-B-NaY-ZE catalyst for transformation of citronellal-rich essential oils to menthol-enrich oil via optimization through single factorial design to enhance their organoleptic profile and biological activities.” **Research on Chemical Intermediates**, **2023**, accepted on June 18, 2023.

√ as corresponding author

Book Chapter(s)

1. RK Lal, A Mishra, Pankhuri Gupta, **CS Chanotiya** and S Sarkar, **2021**. Chapter -1; National and International scenario, conventional breeding and plant descriptor of Vetiver (*Chrysopogon zizanioides* Roberty). In book: Studies in Medicinal & Aromatic Crops (ISBN No. 978-1-913482-36-7) Editor: Dr. Sougata Sarkar. pp.03-79. Publisher: Rubicon Publications. Robert Boyle Manager Rubicon Publications www.rubiconpublications.com Address: 4/4A, Bloomsbury Square, London, WC1A 2RP, England.

2. RK Lal, A Mishra, Pankhuri Gupta, **CS Chanotiya** and S Sarkar, **2021**. Chapter – 2; Breeding for qualitative and quantitative traits and varietal development in Genus Ocimum at CSIR-CIMAP, India: the past and recent accomplishment. In book: Studies in Medicinal & Aromatic Crops (ISBN No. 978-1-913482-36-7) Editor: Dr. Sougata Sarkar. pp.82-119. Publisher: Rubicon Publications. Robert Boyle Manager Rubicon Publications www.rubiconpublications.com Address: 4/4A, Bloomsbury Square, London, WC1A 2RP, England

3. “Terpenoids from Essential Oils.” VS Pragadheesh, Deepa Bisht, **CS Chanotiya**, **2020**. Kirk-Othmer Encyclopedia of Chemical Technology (John Wiley & Sons, Inc.) First published: 21 September 2020 <https://doi.org/10.1002/0471238961.koe00056>.

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4. RK Lal, Pankhuri Gupta, **CS Chanotiya** and Sougata Sarkar, **2018**. Chapter 7; pp.89-98. Traditional Plant Breeding in Ocimum. In: Ajit Kumar Shasany and Chittaranjan Kole (Eds.), **The Ocimum Genome**. Springer Nature, Switzerland.

5. **CS Chanotiya** and CS Mathela, **2009**. Natural essential oils their mass spectra in different analyzer: Comparison of ion trap with quadrupole mass spectra. In: Rajendra Dobhal and BS Kotlia (Eds.), Science and Technology in Uttarakhand. Proceedings of 2nd Uttarakhand State

Science Congress 2007 held in Nainital from 15th to 17th November 2007, Dehradun, India, pp. 187-199, by Uttarakhand State Council for Science and Technology (UCOST), Dehradun.

MacMillan India Ltd, 2009, ISBN 10: 0230-63681-0; ISBN 13:978-0230-63681-1, New Delhi.

Webinar (Sept 2022)

Invited PerkinElmer knowledge series webinar on “Advanced analytical techniques for analysis of VOC in plants and adulteration of essential oils” was delivered on Sept. 28, 2022 organized by M/s PerkinElmer (India) Private Limited, New Delhi.

**Lucknow, Uttar Pradesh,
India
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(CS Chanotiya)