

ACADEMIC PROFILE

1. Name: Anand B. Melkani
2. Designation: Professor & Head
3. Department: Chemistry Department, Kumaun University, Nainital
4. Qualification: M. Sc., Ph. D.
5. Area of Specialization/Research field: Inorganic Chemistry/Natural Products Chemistry
6. Awards/Recognitions:
 - (i) Dr. D.R. Dhingra Award, Essential Oil Association of India
 - (ii) Visiting Lecturer, Chemistry Department, California State Polytechnic University, Pomona, USA, (January-June) 1988
 - (iii) Fulbright Award (Travel-only), Chemistry Department, California State Polytechnic University, Pomona, USA, (January-June) 1992
US Educational foundation
 - (iv) Fulbright Award (Travel-only), Chemistry Department, California State Polytechnic University, Pomona, USA, (January-June) 2004
US Educational foundation

6. Number of Research projects:

i) Completed

S/ N	Title of the project	Funding Agency	Amount(Rs.)	Year (From-To)
i	Minor Research Project	UGC, New Delhi	0.60 lakh	1989-91
ii	Aromatic Grasses of Himalayan region: A source of aroma chemicals	DST, New Delhi	10.0 lakh	1985-1989
iii	Water Quality monitoring in Kumaun region of Uttarakhand	WHO & UK State	3.0 lakh	2002-2003
iv	Terpenoid composition....Lamiaceae	UCOST, Dehradun	7.15 lakh	2007-10

ii) On-going

S/ N	Title of the project	Funding Agency	Amount	Date of Commencement	Expected date of completion
i	Environmentally Sustainable Smart Synthesis of Carbon Nano material Along With the Production of High Value Added Fuel and Additives for the Concrete Mixture from Waste Plastic, a Hazardous Waste around the Himalayan Region", Rs.1.97 Crore, April 2016-March 2019, GBPNIHESD, NMHS, Kosi-Katarmal, MoEF&CC. Co-PI	GB Pant Institute of Himalayan Environmental Sustainable Development, Koshi Katarmal	2.4 crore	April, 2016	Extended up to March 2020
ii	A Remediation and Innovative Tailoring of Materialistic waste (AMRITAM): An innovative approach for the collection, segregation and up-cycling of waste Co-PI First party is Municipal Board, Nainital	GB Pant Institute of Himalayan Environmental Sustainable Development, Koshi Katarmal	Total cost Rs.3.49 crore The University share is 1.37 crore	December, 2019	2023

7. Number of Ph. Ds awarded 10

8. Number of candidates working for Ph.D. award: 05

9. Publications: 72

10. Conference/Seminar organized:

S/N	Status as organizer	Title of the conference/seminar	Year and dates
i	Member of organizing committee	Prospects of essential oil industry in Uttaranchal and the role of GC-MS in analysis of essential oils	24-25 September, 2004
ii	Assistant Director	ETCBI-2011	03-05 November 2011
iii	Member organizing committee	Advances in the Chem of Natural products and their biogenesis	Oct 12 – 14, 1981
iv	Organizing Secretary	International Conference on Energy, Functional Material & Nanotechnology-2016	March 2016
v	Co-Convener	8 th Conference of <i>The Indian Science Congress Association</i> (Haridwar Chapter) on “Reaching the Unreached Through Science and Technology”	October 14-15, 2017
vii	Coordinator	Chemistry Refresher Course	2018
vi	Chairman	International Conference on Energy, Functional Material, Nanotechnology & Sustainable Environment Management-2019	May 2019

11. Academic/Administrative positions held

S/N	Chairman/Member/Secretary	Committee/Board	Year (From-To)
i	Head & Convener, Chemistry	Kumaun University	February 5 2020 to

			February 4, 2023
ii	Campus Head	Chemistry Department	January 2017- February 2020
iii	Coordinator	DST-FIST program level-1	2016-21
iv	Director	ICT Directorate	2015-2017
v	Joint Director	ICT Directorate	2010 -2014
vi	Convener	Workshop on e-Governance	2013
vii	Coordinator	UK Post Graduate Medical Entrance Examination2010	2010
viii	Asstt. Dean Students' Welfare	DSW Board	2002-2008
ix	Assistant Proctor	Proctor Board	2000-2003
x	Program Officer	National Service Scheme	1993-1997
xi	Member	Admission Committee	1987-1993
xii	Convener	Admission Committee, B.Sc. II	1994 - 2011
xiii	Assistant Superintendent, University Examination	Annual Examinations	2002, 2003, 2005 to 2008

12. Membership to professional Organization/Associations:

S/N	Name of the Association/Organizations	Status of the membership
1	Essential Oil Association of India	Life Member
2	Indian Science Congress Association	Life Member
3	Member, Board of Studies	Uttarakhand Open University, Haldwani

13. Publications

- i) Books: Editor, Inorganic Chemistry-1, School of Science, Chemistry
Department, Uttarakhand Open University, Haldwani

Important Research Articles published

1. A.B. Melkani, C.S. Mathela and Vasu Dev, "Constituents of essential Oil of *Bothriochloa bladhi* (Retz.) S.T. Blake", *J. Sci. Food and Agric.*, 1984, **35**, 878-880.
2. C.S. Mathela and A.B. Melkani, "Wild Aromatic Grasses of Kumaon Himalaya as a source of Aroma Chemicals", *Himalayan Research & Development*, 1985, **4(1)**, 31-32.
3. A.B. Melkani, P. Joshi, A.K. Pant, C.S. Mathela and Vasu Dev, "Constituents of the essential oil from two varieties of *Cymbopogon distans*", *J. Nat. Prod.*, 1985, **48(6)**, 995-997.
4. H. Lohani, J.C. Bisht, A.B. Melkani, D.K. Mathela, C.S. Mathela and Vasu Dev, "Chemical Composition of essential oil of *Cymbopogon stracheyi*", *Indian Perfumer*, 1986, **30(4)**, 447-452.
5. A.T. Bottini, Vasu Dev, D.J. Garfagnoli, C.S. Mathela, A.B. Melkani A.A. Miller and N.S. Sturn, "Oxiranylphenyl esters from *Pimpinella diversifolia*", *Phytochemistry*, 1986, **25(1)**, 207-211.
6. Alka Pant, P. Joshi, A.B. Melkani, C.S. Mathela, A.K. Pant and A.K. Singh, "Chemical Composition of essential oil of *Conyza vescidula*", *Fitoterapia*, 1986, **58(6)**, 419-420.
7. C.S. Mathela, A.K. Pant, A.B. Melkani and Alka Pant, "Aromatic grasses of UP Himalaya; A new wild species as a source of aroma chemicals", *Science & Culture*, 1986, **52**, 342-344.
8. C.S. Mathela, A.B. Melkani, Vasu Dev and A.T. Bottini, "Ursolic acid from *Nepeta leucophylla*", *J. Indian Chem. Soc.*, 1987, **64**, 375-376.
9. U. Kobold, O. Vostrowsky, H.J. Bestmann, J.C. Bisht, A.K. Pant, A.B. Melkani and C.S. Mathela, "Terpenoids from *Elsholtzia* sp. II: Constituents of essential oil from a new chemotype of *E. cristata*", *Planta Medica*, 1987, 268-271.
10. C.S. Mathela, A.B. Melkani, P. Joshi, D.K. Mathela, A.K. Pant and Vasu Dev", Aromatic grasses of Kumaon Himalaya: distribution, chemotaxonomy, nutritive value and economic importance", *J. Econ. Tax. Bot.*, 1987, **11(2)**, 337-343.
11. H.J. Bestmann, U. Kobold, B. Claben, O. Vostrowsky, G.C. Sah, A.K. Pant, A.B. Melkani and C.S. Mathela, "New Constituents of *Elsholtzia pilosa* essential oil", *Z. Naturforsch.*, 1988, **43C**, 370-372.
12. Vasu Dev, D. Millander, J.T. Yee, C.S. Mathela, A.B. Melkani, A.K. Pant and A.T. Bottini, "Terpenoid composition of the essential oil from *Cymbopogon jwarancusa*", in Proceedings of 10th International Congress of essential oils, Fragrance &Flavors, (Eds. B.M. Lawrence, B.D. Mukherjee and B.J. Willis), Elsevier Science Publisher V.D., Amsterdam, P.317-323, 1988.
13. C.S. Mathela, Vasu Dev, A.B. Melkani and A.K. Pant, "New chemotypes of *Cymbopogon distans* in Western Himalaya: their terpenoid composition and chemotaxonomic importance", in Proceedings of 10th International Congress of essential oils, Fragrance &Flavors, (Eds. B.M. Lawrence, B.D.

- Mukherjee and B.J. Willis), Elsevier Science Publisher V.D., Amsterdam, P.301-, 1988.
14. C.S. Mathela, A.B. Melkani, Alka Pant and Chitra Pande, "Chemical variation in *Cymbopogon distans* and their chmosystematic implications", *Biochem. System. Ecol.*, 1988, **16(2)**, 161-165.
 15. C.S. Mathela, C. Pande, D.K. Mathela, A.B. Melkani and P. Joshi, "Terpenoid composition of *Cymbopogon distans f. munsiarensis*", *Herba Hungarica*, 1988, **27**, 117-121.
 16. C.S. Mathela, G.C. Sah, A.K. Pant and A.B. Melkani, "Terpenes from *Mentha longifolia ssp. Himalayansis*", *Fitoterapia*, 1989, **60**, 239.
 17. C.S. Mathela, A.B. Melkani, Alka Pant, Vasu Dev, T.E. Nelson, H. Hope and A.T. Bottini, "Eudesmandiol from *Cymbopogon distans*", *Phytochemistry*, 1989, **28(3)**, 936-938.
 18. Vasu Dev, C.S. Mathela, A.B. Melkani, N.M. Pope, N.S. Sturm and A.T. Bottini, "Dieters of 2-(E-3-methyloxiranyl) hydroquinone from *Pimpinella diversifolia*", *Phytochemistry*, 1989, **28(5)**, 1531-1532.
 19. C.S. Mathela, G.C. Sah, A.B. Melkani and P. Joshi, "3-Substituted furanyl compounds of *Perrilla oscimoids*", *J. Indian Chem. Soc.*, 1989, **66**, 183-184.
 20. A.B. Melkani, G.C. Sah and Rashmi Parihar, "*Mentha longifolia ssp. Himalayansis*: a new source of aroma chemicals", in proceedings of 11th International Congress of essential oils, Fragrance & Flavours, (Eds. S.C., Bhattacharya, N. Sen and K.L. Sethi), Vol. **4**, p. 177, 1989.
 21. A.B. Melkani, C.S. Mathela, V. Dev and A.T. Bottini, "Composition of root essential oil from *Pimpinella diversifolia*", in Proceeding of 11th International Congress of essential oils, Fragrance & Flavours, (Eds. S.C., Bhattacharya, N. Sen and K.L. Sethi), Vol. **4**, p. 83, 1989.
 22. G.B.S. Reddy, A.B. Melkani, G.A. Katiyani, J. Venkatrao, A. Shirwarkar, M. Kotian, R. Raman, K.S. Aithal, A.L. Udupa, G. Bhatt and K.K. Srinivasan, "Chemical and Pharmacological Investigations of *Limnophylla conferta* and *L. heterophylla*", *Int. J. Pharmacognosy*, 1991, **29(2)**, 145-153.
 23. N.P. Melkania, A. B. Melkani, H. C. Joshi and J. P. Tandon, "Dry matter yield and nutrient status of certain indigenous grasses of Himalaya", *Range Mgmt. & Agroforestry*, 1991, **12(1)**, 31-36.
 24. A. T. Bottini, Vasu Dev, G. C. Sah, C. S. Mathela, A.B. Melkani, A. T. Nerio and N. S. Sturm, "Cyclopentanomonoterpene enol acetates from *Nepeta leucophylla*", *Phytochemistry*, 1992, **31**, 1653-1657.
 25. C. S. Mathela, A. B. Melkani and A. K. Pant, "Reinvestigation of *Skimmia laureola* essential oil", *Indian Perfumer*, 1993, **36(3)**, 217-222.
 26. C. S. Mathela, A. B. Melkani, J. C. Bisht, A. K. Pant, H. J. Bestmann, J. Erler, U. Kobold, J. Ranscher and O. Vostrowsky, "Chemical investigation of essential oil from *Elsholtzia polystrachia* from two different location in India", *Planta Medica*, 1993, **58(4)**, 376-379.

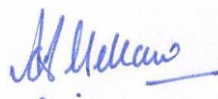
27. P. S. Beauchamp, A. T. Bottini, Vasu Dev, A. B. Melkani and J. Timbrook, "Analysis of the essential oil from *Lomatium californicum*", Food, flavors, Ingredients and Composition, Ed. G. Charalambous, Elsevier Science Publishers B.V., 1993, p. 605-610.
28. A. B. Melkani, P. S. Beauchamp, Vasu Dev, C. Whalen and C. S. Mathela, "Rosefuran epoxide from *Elsholtzia densa*", *J. Essent. Oil Res.*, 1994, **6**, 475-479.
29. P. S. Beauchamp, Vasu Dev, D. R. Docter, R. Ehsani, Gilbert Vita, A. B. Melkani, C. S. Mathela and A. T. Bottini, "Comparative investigation of the sesquiterpenoids present in the leaf oil of *Cymbopogon distans* (Steud) Wats var. *loharkhet* and the root oil of *Cymbopogon jwarancusa* (Jones) Schult.", *J. Essent. Oil Res.*, 1995, **8**, 117-121.
30. P. S. Beauchamp, A. T. Bottini, M. C. Caselles, Vasu Dev, H. Hope, M. Larter, G. Lee, C. S. Mathela, A. B. Melkani, P. D. Miller, M. Miyatake, A. K. Pant, R. J. Raffel, V. K. Sharma and D. Wyatt, "Neo-Clarodane diterpenoids from *Ajuga perviflora*", *Phytochemistry*, 1996, **43(4)**, 827-834.
31. C. Pande, A. B. Melkani and C. S. Mathela, "*Cymbopogon distans*: report on a new chemotype", *Indian Perfumer*, 1997, **41(1)**, 35-36.
32. P. S. Beauchamp, Vasu Dev, T. K. Kashyap, A. B. Melkani, C. S. Mathela and A. T. Bottini", Composition of the essential oil from *Tanacetum nubigenum* Wallich ex DC", *J. Essent. Oil Res.*, 2001, **13**, 319-323.
33. T. K. Kashyap, A. B. Melkani, C. S. Mathela, Vasu Dev, M. M. Olmstead, Haken Hope and A. T. Bottini, "Essential oil from *Nepeta govaniana* Benth: study of its major terpenes", *J. Essent. Oil Res.*, 2003, **15**, 28-30.
34. Anand B. Melkani, Vasu Dev, M.S. Javed, S.P.S. Mehta and K.B. Melkani, "Steam Volatile Components from the Roots and Aerial parts of *Sanicula elata* Hamilt.", *Indian Perfumer*, 2004, **48(4)**, 421-424.
35. Anand B. Melkani, Vasu Dev, Anuradha Negi, S.P.S. Mehta and K.B. Melkani, "Constituents of the Essential Oil of a New Chemotype of *Elsholtzia strobilifera* Benth.", *Biochemical Systematics and Ecology*, 2005, **33**, 419-425.
36. Anand B. Melkani, M.S. Javed, K.B. Melkani, Vasu Dev and P.S. Beauchamp, "Terpenoid composition of the Essential Oil from *Pimpinella acuminata* (Edgew.) CB Clarke.", *Journal of Essential Oil Research*, 2006, **18**, 312-314.
37. Anand B. Melkani, Anuradha Negi, M S. Javed, Vasu Dev and P.S. Beauchamp, "*Agrimonia aitchisonii* Schonbeck Temesy (Rosaceae), another source of methyl myrtenate", *Journal of Essential Oil Research*, 2007, **19**, 273-275.
38. Anand B. Melkani, Anuradha Negi, M.S. Javed, V. Dev and P.S. Beauchamp, "Steam volatile terpenoids from *Salvia leucantha*", *Journal of Essential Oil Research*, 2007, **19**, 401-403.
39. Anand B. Melkani, Anuradha Negi, C.M.S. Bisht and Vasu Dev, "Constituents of the essential oil from *Scutellaria scadens* D. Don", *Indian Perfumer*, 2007, **51**, 64-66.
40. Chandra M. S Bisht, Anand B. Melkani, Vasu Dev and Philip S. Beauchamp, "1,10 β -Epoxy-6-oxofuranoeremophilan and other terpenoids from the essential oil of *Senecio royleanus* DC." *Journal of Essential Oil Research*, 2010, **23**, 102-104.
41. Anand B. Melkani, Anuradha Negi, S. C. Sati, K. Khulbe and Vasu Dev,

- “Terpenoid Composition and Antimicrobial Activity of the Essential Oil from *Salvia nubicola* Wall ex Sweet.”, *Journal of Essential Oil Research*, 2010, **22**, 575-577.
42. Lalit Mohan, C.C. Pant, Anand B. Melkani and Vasu Dev, Terpenoid Composition of the essential oils from *Teucrium royleanum* and *T. quadrifarium*, *Natural Product Communication*, 2010, **05**, 939-942.
 43. M. S. Javed, C.M.S. Bisht, A. Negi and A.B. Melkani, Chemical composition of the essential oil from *Anaphalis royleana* DC var. *cana* Hook f., *Journal of Essential oil Bearing Plants*, 2010, **13**, 551-555.
 44. A. Negi, V. Juyal and A.B. Melkani, Analgesic activity of fruit decoction of *Citrus medica* Linn., *Journal of Pharmacy Research*, 2010, **03**, 2119-2121.
 45. Lalit Mohan, Anuradha Negi, Anand B. Melkani and Vasu Dev, Chemical Composition and Antibacterial Activity of Essential oil from *Salvia mukerjeei*, *Natural Product Communication*, 2011, **06**, 1949-52.
 46. Archana N. Sah, Vijay Juyal and Anand B. Melkani, Antimicrobial Activity of Six Different Parts of the Plant *Citrus medica* Linn., *Pharmacognosy Journal*, 2011, **03**, 80-83.
 47. C.C. Pant, A.B. Melkani, Lalit Mohan and V. Dev, Composition and Antibacterial Activity of essential oil from *Scutellaria grossa* Wall ex Benth., *Natural Product Research*, 2012, **26**, 190-92.
 48. Anand B. Melkani, Manoj Nailwal, Lalit Mohan, Charu C. Pant and Vasu Dev, Steam volatile oil from *Scutellaria repens* Buch-Ham. ex D. Don; its composition and antibacterial activity, *Journal of Essential Oil Research*, 2013.
 49. Reema Priyadarshi, Anand B. Melkani, Lalit Mohan and Charu Pant, Terpenoid composition and antibacterial activity of the essential oil from *Inula cappa* (Buch-Ham. Ex. D. Don) DC, *Journal of Essential Oil Research*, 28(2), 172-176, 2015.
 50. Lalit S. Bisht, Rajendra Prasad, Deepshikha Joshi, Manoj K. Nailwal and Anand B. Melkani, Phytochemical screening and antibacterial assay of the essential oil from *Carpesium cernuum* L., *International Journal of Green and Herbal Chemistry*, September 2017 – November 2017; Sec. B; Vol.6, No.4, 107-116.
 51. Deepshikha Joshi, Anand B. Melkani, Manoj Nailwal, Rajendra Prasad and Lalit S. Bisht, Terpenoid composition of essential oil from a new chemotype of *Selinum wallichianum* Raizada & Saxena, *Natural Product Research*, 31, 2017.
 52. Rajendra Prasad, Lalit S. Bisht, Deepshikha Joshi, Manoj K. Nailwal and Anand B. Melkani, Chemical Composition and Antibacterial Activity of the Essential Oil from Whole Aerial Parts of *Leucas mollissima* Wall. ex Benth, *Journal of Essential Oil Bearing Plants* 20, 141-147, (2017).
 53. Deepshikha Joshi, Anand B. Melkani, Rajendra Prasad and Manoj K. Nailwal, Antibacterial activity and chemical composition of the steam volatiles from *Plectranthus coesta* from two different habitats of Uttarakhand *Indian Perfumer* 61,13-18 (2017)
 54. Deepshikha Joshi, Manoj K. Nailwal, Lalit Mohan and Anand B. Melkani *Ligularia amplexicaulis* (wall) DC Essential oil composition and antibacterial activity. *Journal of Essential Oil Research* 1-8 (2018), doi.org/10.1080/10412905.2018.1427636.

55. N.S. Bisht, Deepika Pancholi, N.G. Sahoo, A. B. Melkani, S.P.S. Mehta and Anirban Dandapat, Effect of Ag-Fe-Cu tri-metal loading in bismuth oxybromide to develop a novel nanocomposite for the sunlight driven photocatalytic oxidation of alcohols, *Catalysis Science & Technology*, **9**, 3923-3932, 2019.
56. Lalit Mohan, A. B. Melkani, Reema Priyadarshi and C. C. Pant, Chemical composition and antibacterial activity of the steam volatile extract from *Salvia coccinea* Juss. Ex Murr., *International Journal of Green and Herbal Chemistry*, **8**, 277-285, 2019.
57. Sandeep Pandey, Manoj Karakoti, Sunil Dhali, Neha Karki, B. Santhibhushan, Chetna Tewari, Sravendra Rana, Anurag Srivastava, Anand B. Melkani and N. G. Sahoo, Bulk Synthesis of grapheme nanosheets from plastic waste: An invincible method of solid waste management for better tomorrow, *Waste Management*, **88**, 48-55, 2019.
58. Chetna Tewari, Gaurav Tatrari, Manoj Karakoti, Sandeep Pandey, Mintu Pal, Sravendra Rana, B. Sashibhusahan, Anand B. Melkani, A. Srivastava and Nanda Gopal Sahoo, A simple eco-friendly and green approach to synthesis of blue photoluminescent potassium-doped graphene oxide from agriculture waste for bio-imaging applications, *Material Science & Engineering C*, 104, 2019 (109970).

14. Any other Information:

Associate NCC Officer, Naval Wing of NCC, 2001 to 2015, Pre-Commission Course 2001 from Southern Command of Indian Navy, Kochi.



(Self certified)

Sd. Anand B. Melkani

June, 2020