

CURRICULAM VITAE

PROF. DR. ABDUL MALIK

Name: Abdul Malik
Father's Name: Sheikh Abdul Mannan
Date of Birth: 9th August, 1948
Marital Status: Married
Nationality: Pakistani
Languages: English, Urdu, German and Arabic.

ACADEMIC CAREER:

Exam	Board/University	Division	Year
Secondary School Certificate	Karachi Board	2 nd	1963
Higher Secondary Certificate	Karachi Board	2 nd	1965
B.Sc.	Karachi University	2 nd	1967
M.Sc. (Organic Chemistry)	Karachi University	1 st	1969
Ph.D. (Organic Chemistry)	Karachi University	-	1978

Title of Thesis: "Studies in the chemical constituents of *Rauwolfia vomitoria* Afzel"

Supervisor: Prof. Salimuzzaman Siddiqui (F.R.S.) Former Director, H.E.J. Research Institute of Chemistry, University of Karachi.

EXPERIENCE

Post	Institution	Year	Nature of Duties
Junior Research Fellow	University of Karachi	1969-78	Research
Research Fellow	University of Karachi	1978-81	Research
D.A.A.D. Fellow	Tubingen University (West Germany)	1981-82	Teaching/Research
Post Doc. Fellow	Tubingen University (West Germany)	1982-84	Teaching/Research Guidance
Assistant Professor	H.E.J. Res. Inst. of Chem. University of Karachi	1984-90	Teaching/Research Supervision of M.Phil & Ph.D. Students

G.T.Z. Fellow	Tubingen University (West Germany)	1985 & 86	Teaching/Research Guidance
Associate Professor	H.E.J. Res. Inst. of Chem. University of Karachi	1990-96	Teaching/Research Supervision of M.Phil & Ph.D. Students
Professor	H.E.J. Res. Inst. of Chem. University of Karachi	1996 to date	Teaching/Research Supervision of M.Phil & Ph.D. Students
W.H.O. Fellow	England	1993	Training on Pesticide analysis

RESEARCH CONTRIBUTIONS

Dr. Malik has so far published over 268 papers most of which are in leading international journal in several fields of organic chemistry. Mention may be made in particular to several synthetic strategies developed by him for achieving novel syntheses of bioactive natural products, useful synthons, potential sugar intermediates and amino sugars the essential constituents of a large group of antibiotics. These include a facile access to monodisperse ultra large rings (J. Am. Chem. Soc., 125, 5408, 2003), syntheses and biological screening of 2-[4-substituted phenyl] 4-(2-cyanoethyl-4(H), 1,3,4-oxadiazine-5 (6H)-ones and their intermediates (Helv. Chim. Acta, 85, 559, 2002), synthesis of polysubstituted chiral tetrahydrofurans (Z. Naturforsch **55b**, 317 2000), syntheses of anomeric pairs of C-nucleosides via 1,3-dipolar cycloaddition reaction (Z. Naturforsch, **52b**, 1383, 1997), solid phase synthesis of muramyl dipeptides on isomeric aminomethyl linker resins (Z. Naturforsch, 52. 1383 & 1393, 1997), ^{13}H , ^{13}C , ^{119}Sn NMR. 119Snn Mossbauer, infrared and mass spectrometric studies of organotin carboxylates of 2-(2,3-dimethylphenyl) aminobenzoic acid and their effect on microorganisms (Synth. React. Inorg. Met. – org. Chem., 27 (6) 863, 1997), a regioselective method for the synthesis of 3-chloro-3-deoxy sugars (J. Chem. Soc., Perkin Trans. 1, 1349. 1983), classical synthesis of mono and di-nitrate sugars via triflates (Liebigs Ann. Chem., 1929, 1985), a new efficient access to aminodeoxy sugars (J. Chem. Soc., Chem. Commun, 1530, 1984), efficient stereocontrolled synthesis of D-forosamine, the amino sugar moiety of spiramycin antibiotic (J. Chem. Soc., Perkin Trans, 1, 2103, 1983), stereospecific total syntheses of D-ossamine and D-tolyposamine, the amino sugar moieties of the fungal metabolite ossamycin and lolypomycin antibiotic (Liebigs Ann. Chem., 636. 1984), novel one pot synthesis of a new class of compounds involving coupling of sugars and amino acids via triflates (S. Org. Chem., 50 (18), 3325, 1985) regioselective one pot approach to aminodeoxy sugars via amino silanes (J. Chem. Soc., Chem. Commun., 1074, 1987), regioselective one pot syntheses of cyanodeoxy sugars (Synthetic commun., 18, 151, 1988), inflator induced C-N coupling of sugars with heterocyclic bases: synthesis of a new class of compounds (Synthetic Commun., 18, 501, 1988), a novel triflate mediated approach to alkaloidal glycosides (Heterocycles, 27, 25, 1988), facile syntheses of quaternary amino sugars (T. Prakt. Chem., 330 (6), 1030, 1989), new synthetic routes to amino sugars and sugars amino acids (Chemiker Zeitung, 113, 153, 1989). Syntheses of cyclopropanated and branched chain pyranosides via carbohydrate inflates (Liebigs Ann. Chem., 389, 1990, solid phase syntheses in carbohydrates (Chemiker Zeitung, 114, 371, 1991, efficient one pot approach to sugar phosphates of potential biochemical interest (Liebigs Ann. Chem. 1147, 1191), regioselective – one pot syntheses of N, N-dialkyl-amino sugars via TMSDEA and TMSDMA (J. Chem. Res. (6), 124, 1992), a novel entry into cyclopropanated sugar amino acids (Z. Naturforsch., 496, 1434, 1994) and a

regioselective one pot synthesis and synthetic applications of cyanodeoxy sugars by cyanotrimethylsilane (Z. Naturforsch., 506, 294, 1994).

In the field of isolation and structure elucidation of new natural products he has reported the isolation and structure of haloxysterols A-D, potent cholinesterase inhibiting sterols from *Haloxylon recurvum* (Bioorg. & Med. Chem. Lett. 573-580 2006), isolation and kinetic studies of onosmins A and B, novel inhibitors of lipoxygenase, from *Onosma hispidum*, (Chem. Pharm. Bull. 53, 907, 2005), withanolides, a new class of natural cholinesterase inhibitors with calcium antagonistic properties, (Biochem. Bioph. Res. Co. 334, 276, 2005), butyrylcholinesterase inhibitory guaianolides from *Amberboa ramosa* (Arch. Pharm. Res. 28, 172, 2005). enzymes inhibiting lignans from *Vitex negundo*, (Chem. Pharm. Bull. 52, 1269, 2004), urease inhibiting guaianolides from *Amberboa ramosa* (Pol. J. Chem. 78, 2075, 2004), pakistolides A and B, novel enzyme inhibitory and antioxidant hydroxybenzoate derivatives from *Berchemia pakistanica*, (Helv. Chim. Acta., 87, p. 416-424, 2004), lipoxygenase inhibiting and antioxidant oligostilbene and monoterpene galactoside from *Paeonia emodi* (Phytochemistry, 65, 1129, 2004), phosphodiesterase inhibiting coumarinolignoids from *Duranta repens* (Heterocycles, 60, 151, 2003), paeonins A and B, lipoxygenase inhibitory monoterpene galactoside from *Paeonia emodi* (Chem. Pharm. Bull. 51, 252, 2003), sphingolipids from *Conyza canadensis* (Phytochemistry 61, 1005, 2002), enzyme inhibiting constituents from *Duranta repens* (Chem. Pharm. Bull. 50, 515, 2002), α -glucosidase inhibiting constituents from *Cuscuta reflexa* (Chem. Pharm. Bull. 51, 112, 2002), trianthanol, an antifungal triterpenoid from *Trianthema porutlastrum* (Phytochemistry 56, 99, 2001), thrombin inhibitory constituents from *Duranta repens* (Helv. Chem. Acta, 84, 649, 2001), novel β -glucuronidase inhibiting triterpenoid from *Paeonia emodi* (Chem. Pharm. Bull. 48, 117, 2000), the withanolide glycosides from *Physalis peruviana* (Chem. Pharm. Bull. 47, 447, 1999, & J. Nat. Prod., 62, 493, 1999), withanolides from *Ajuga parviflora* (Phytochemistry 52, 1357, 1999, & J. Nat. Prod. 62, 1290, 1999). Coumarinolignoid glycoside, lignan, dicoumarin glycosides and phenylpropanoid glycosides from *Daphne oleoides* (Phytochemistry 51, 1999 & Chem. Pharm. Bull., 47, 114, 1999), alkaloids "Serpenticine" from *Rauwolfia vomitoria* (Heterocycles 16, 1727, 1981), "neonorserpene" from *Rauwolfia vomitoria* (Z. Naturforsch., 3 (7), 920, 1980), "ajmalinol" from *Rauwolfia vomitoria* (J. Chem. Soc. Pak., 1 (10) 1-4 1979), "Subulacine-N-Oxide" from *Haliotropium subulatum* (Heterocycles, 27 707, 1988), raccinodine from *Senecio racemosus* (Phytochemistry, 32, 224, 1993), racemocine and racemonine from *Senecio racemosus* (Heterocycles, 32, 1729, 1991) and senciocinone from *Senecio racemosus* (J. Nat. Prod., 55, 1764, 1992), the triterpenoids "cyclo euphorbol" from *Euphorbia tirucalli* (Pak. J. Sci. Ind. Res., 22, 173-176 1979), "euphorbinol" from *Euphorbia tirucalli* (Pak. J. Sci. Ind. Res., 22, 124-127, 1979) "cyclo euphorbenol" from *Euphorbia tirucalli* (Phytochemistry, 27, 2279, 1988). "cyclo euphorbenol" from *Euphorbia tirucalli* (Z. Naturforsch., 43, 1059, 1988), "euphorginol" from *Euphorbia tirucalli* (Phytochemistry, 28, 1193, 1989) "euphorcinol" from *Euphorbia tirucalli* (Planta Medica, 55, 290, 1989), psoraacinol from *Psoralea plicata* (J. Nat. Prod., 52, 749, 1989); the diterpene "Urucalidine" from *Euphorbia tirucalli* (Heterocycles, 27 285, 1988). Cycloclarkeanol from *Euphorbia clarkeana* (J. Nat. Prod., 55 959, 1992), and rubrinol and antimicrobial triterpenes from *Plumeria mbr*

(Fitoterapia, in press), the diterpene "Lirucalicine" from Euphorbia tirucalli (Heterocycles, 27, 28. 1988), tirucalinine from Euphorbia tirucalli (J. Nat. Prod. 53, 223, 1990), the steroid "serposterol" from Rauwolfia vomitoria (Pak. J. Sci. Ind. Res. 23 229, 1980), "euphoi basstei ol" from Euphorbia tirucalli (pak. J. Sci. Ind. Res., 21, 229, 1980).

Total No. of publications till Jan 2006	=	268
No. of publications in international journals	=	210
No. of publications in national journals	=	58
Total impact factor till May 2005	=	230

PATENT

1. A process for the preparation of muscular pain relieving analgesic ointment composition, Pakistan Patent Application No. 712/2002 SI No. 138095, dated 10.8.2002.
2. A process for the facile analysis of gum base in chewing gum, Pakistan Patent Application No. 652/2002 SI No. 138176 dated 20.7.2002.

CHAPTERS IN BOOKS

1. Dr. Malik, along with Prof. Wolfgang Voelter, is a contributor of the book entitled "Biologically Active principles of Natural Products", Georg Thieme Verlag, New York, 1984.
2. Dr. Malik along with Prof. Wolfgang Voelter, is a contributor of the book entitled "Trends in Organic Chemistry, Research Trends, Streekanteswarm, Trivandrum India.

Chapters in Internationally Published Proceedings

1. Contributed chapters in "Chemistry at the Turn of the Century", Proceedings of the 7th & 8th International Symposia on Natural Product Chemistry, Karachi (2002).
2. Contributed a chapter in "Advances in Natural Products Chemistry, Ed. Atta-ur-Rahman, Harward Academic Press, Netherland (1992).
3. Contributed a chapters in Proceedings of the 3rd International Symposium on Natural Product Chemistry, Karachi (1989).
4. Contributed a chapter in "New Trends in Natural Products Chemistry", Ed. Atta-ur-Rahma and P. Le Quesne, Springer Verlag, Netherland (1986).

Awards and Honours

1. Cival award (Sitara-i-Imtiaz) by Govt. of Pakistan on 23.3.2001.

2. Best Scientist of the year award and Pakistan Academy of Sciences and Infaq Foundation Joint gold Medal 1999.
3. Nominated in the Board of Governors of Centre of Excellence in Analytical Chemistry, Sindh University Jamshoro.
4. Nominated as Member of the Executive Council of Pakistan Standards Institution
5. Nominated as Member of the WHO Expert Advisory Panel on Vector Biology and Control.
6. Gold medal by President of Pakistan in Jan. 2006.
7. Member, Board of Management, Leather Research Centre, SITE Area, Karachi.
8. Member, Board of Studies, Department of Chemistry, Quaid-i-Azam University, Islamabad.

International Conferences and Seminars

1. Invited speaker in the 2nd International Symposium, UNESCO-SCAMAP and Pakistan-U.S. Binational Workshop on “Natural products Chemistry”, in Karachi, Pakistan (January 1986) (Co-Chairman at one of the organic Chemistry sessions).
2. Participated in International Symposium entitled “Isolation and Structural Elucidation of Natural Products Using Spectroscopic Techniques” in Karachi, Pakistan (January 1987).
3. Invited Speaker of the 3rd International Symposium and Pakistan - U.S. Binational Workshop on “Natural Products Chemistry”, in Karachi, Pakistan (January 1988).
4. Invited speaker of the 4th International symposium on Natural Products Chemistry in Karachi, Pakistan (1990).
5. Participated in 19th IUPAC Symposium on the Chemistry of Natural Products in Karachi, Pakistan (January 1994).
6. Invited Speaker of the 8th International Symposium on “Natural Product Chemistry”, in Karachi, Pakistan (1998).
7. Participated in EURASIA Conference in Karachi in 2002, Co-Chairman in one of the sessions.

List of Ph.D. Students supervised by Prof. Dr. Abdul Malik

25 Students have so far been supervised for Ph.D. Their list is provided herein.

1. Abdul Qasim Khan (1989).
2. Zaheer Amed (1990).

3. Syed Najam-ul-Hussain Kazmi (1990).
4. Nazli Rasool (1991).
5. Syed Abdul Majeed Ayatollahi (1991).
6. Waseem Ahmad (1992).
7. Nargis Akhtar (1992).
8. Tanveer Ahmad Nizami (1998).
9. Saeed Ahmad (1999).
10. Pir Muhammad (1999)
11. Nisarullah (1999)
12. Fazila Iqbal (1999)
13. Erum Anis (2000).
14. Hafiz Rab Nawaz (2000)
15. Nusrat Jahan (2001)
16. Muhammad Riaz (2001)
17. Erum Akbar (2002)
18. Itrat Anis (2002)
19. Muhammad Raza Shah (2003)
20. Naheed Riaz (2004)
21. Naveen Mukhtar (2004)
22. Kiran Iqbal (2005)
23. Aziz-ur-Rahman (2005)
24. Sher Bahdar Khan (2006)
25. Azhar-ul-Haq (2006)

List of M.Phil Students Supervised by Prof. Dr. Abdul Malik

1. Nusrat Jahan (1998).
2. Rana Zahid Nadeem (1998)
3. Shafaqat Hussain (2005)
4. Muhammad Rafiq Khan (2006)