

**INSTITUTE OF CHEMISTRY
UNIVERSITY OF THE PUNJAB
LAHORE**

Name : Prof. Dr. Ch. Jamil Anwar

**Department : Institute of Chemistry
University of the Punjab
Lahore.**

Designation : Professor & Director

Highest Qualification : M.Sc./Ph.D./Post.Doc

List of Publication : Given below

C.V. OF PROF. DR. CH. JAMIL ANWAR

Name: Ch. Jamil Anwar

Father's Name: Ch. Mohammad Anwar

Nationality: Pakistani

Religion: Islam

Date of Birth: 10th January, 1951

Place of Birth: Gujrat (Pakistan)

**Marital Status
& Dependents:** Married, (wife and four children)

Postal Address: B-10, Residential Colony, Qaid-e-Azam Campus,
University of the Punjab, Lahore-54590, PAKISTAN.

Permanent Address: Nur Pur Paddey, Near Railway Road, Gujrat,
(Pakistan)

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Qualifications:

<u>Degree/ Certificate</u>	<u>Institution</u>	<u>Year</u>	<u>Subjects</u>
Matric.	Board of I&S. Education Lahore, Pakistan	1965	Chemistry. Phy. Math. Eng.
F.Sc.	-do-	1967	Chemistry. Phy. Math. Eng.
B.Sc.	Punjab University Lahore, Pakistan	1969	Chemistry, Phy. English
M.Sc.	-do-	1972	Inorg./Anal.Chemistry
Ph.D	University of Aberdeen, U.K.	1982	Analytical Chemistry
Post Doct.	University of Florida, U.S.A.	1990-91	Analytical Chemistry



Present Positions:

- **Full Professor** since 1995.
- **Director** of Institute of Chemistry, University of the Punjab, Lahore.
- **Dean**, Faculty of Science, University of the Punjab, Lahore.
- **Director**, Undergraduate Studies, University of the Punjab, Lahore
- **Director**, Evening programmes, University of the Punjab, Lahore

Previous Positions:

- **Lecturer**, in University of the Punjab, Lahore 1973-1982
- **Assistant Professor** -do- 1982-1990.
- **Associate Professor** -do- 1990-1995

Teaching /Research Experience:

Thirty four years experience of teaching Inorganic and Analytical chemistry to post graduate classes and conduct practical and research work.

Administrative Experience:

- Working as **Director, Institute of Chemistry**, University of the Punjab, Lahore, since July 19, 2002.
- Working as **Director, B.A./B.Sc. (Hons.) Programme & Evening classes** in Punjab University, Lahore since Dec.2002.
- Working as **Dean, Faculty of Science**, University of the Punjab, Lahore, since 6 June,2007.
- Worked as **superintendent** in Punjab University Boys hostel
For three years.

Additional Duties:

- Chairman**, Punjab University Admission Committee
- Chairman**, Selection Committee for the recruitment of employees from BPS-1 to 16 scale.
- Chairman**, Structural Committee for Punjab University.
- Chairman**, Punjab University Sports Committee,

- v) **Chairman**, House building Advance Committee, Punjab University.
- vi) **Member**, Purchase committee, Punjab University.
- vii) **Member**, Campus maintenance committee, Punjab University.
- viii) **Chief Editor** Journal of Scientific Research, University of the Punjab, Lahore

Awards and Honours:

- i) Decorated with **Best Teacher Award** for 2003 by Higher Education Commission, Islamabad.
- ii) Selected as one of the judges for **King Faisel International Award in Chemistry**, Riyadh, Saudi Arabia, in 2002.
- iii) By securing 1818 points rated at **9th position** in the list of 702 productive scientists of Pakistan enlisted by Ministry of Science and Technology, Islamabad, Pakistan.

Membership of Academic Bodies:

- i) **Member**, National Core group of Chemistry.
- ii) **Chairman**, Board of Studies in Chemistry, University of the Punjab, Lahore.
- iii) **Member**, Board of Advanced Studies & Research, University of the Punjab, Lahore.
- iv) **Member**, Board of Intermediate & Sec. Education, Lahore.
- v) **Member**, Board of Intermediate & Sec. Education, Faisl-a-bad.
- vi) **Member**, Board of Intermediate & Sec. Education, Rawalpindi.
- vii) **Member**, Board of Studies in Chemistry, Kennaird College, Lahore.
- viii) **Member** Interuniversity Faculty Board Lahore College University, Lahore.
- ix) **Member** of Board of Studies in Chemistry, Sargodha University, Sargodha.
- x) **Member** of Board of Studies in Chemistry, Gomal University, D.I.Khan.
- xi) **Member**, Board of Studies, Education University, Lahore
- xii) **Member**, Selection Board, Education University, Lahore
- xiii) **Member**, Board of Studies, A.I.O.U. Islamabad.

- xiv) **Subject Expert**, Federal Public Service Commission, Islamabad.
- xv) **Member** Urdu Science Board, Lahore

Computer Expertise:(i) MS-DOS
(ii) Windows 2000
(iii) Microsoft Office

Research Interests:

- (i) Chemical analysis of environmental pollutants
- (ii) Development of flame spectroscopic and spectrophotometric methods of analysis
- (iii) Indirect methods for anion determination based on atomic absorption spectroscopy
- iv) Trace metal analysis by Laser-induced atomic and molecular fluorescence.
- (v) Catalytic and thermal Degradation and recycling of waste polymers into value added materials.
- (vi) Assay of pharmaceutical products by new spectroscopic methods.

Students Supervised:

	<u>Completed</u>	<u>In process</u>
Ph.D	7	6
M.Phil	26	6
M.Sc.	225	18

Memberships of Societies:

- i) **Treasurer** of Chemical Society Pakistan
- ii) **Fellow** of Chemical Society of Pakistan
- iii) **Fellow** of Pakistan Institute of Chemists
- iv) **Life member** of Association for the Advancement of Science, Pakistan.
- v) **Member** of Soc. for Appl. Spectroscopy U.S.A. for one year only 1991-92)

Seminars & Conferences: attended:

- i) Paper presented in 8th Conf. on Research & Development in Analytical Chemistry held in June, 1981, Salford, U.K.

- ii) Paper presented in 2nd National Chemistry Conf. held in Dec.1990, at Karachi, Pakistan.
- iii) Paper presented on Laser excited atomic fluorescence in graphite furnace in solid samples- Determination of thallium in bovine liver in 42nd Pittsburgh Conf. on Anal. Chem. & Appl. Spectroscopy, held in March 4-8, at Chicago, USA.
- iv) Paper presented in 12th International Symposium on Microchemical Techniques held in Cordoba, Spain 6-11 Sept.1992.
- v) Validation of some Thin-layer chromatographic methods as alternative to gas and high performance liquid chromatography for pesticide residue analysis, paper presented at the 2nd FAO/IAEA research coordination Meeting 6-10 March, 2000, College, Laguna, Philippines.
- v) TLC as an alternative to gas and high performance liquid chromatography for pesticide residue analysis, paper presented at the 3rd FAO/IAEA research coordination Meeting 22-27 March, 2002, Beijing, China.
- vi) Effect of DOP mobilizer on the radiolysis of semi-crystalline ethylene Propylene copolymers paper presented in **7th International Symposium on Ionizing radiation and polymers** held in Antalya, **Turkey** on 23-28 Sep.2006

References:

- (i) Dr. I. L. Marr, Chemistry department, Aberdeen University, AB 92UE, Scotland, U.K.
- (ii) Dr. J. W. Winefordner, Chemistry Department, University of Florida, FL 32611-7200, Gainesville, U.S.A.
- (iii) Dr. Misbah-ul-Ain Khan, Ex-Vice Chancellor, (Bahawalpur University), 459-C, Faisal Town, Lahore-54590, Pakistan.
- (iv) Dr. R.A.Chalmers

Chemistry department, Aberdeen University,
AB 92UE, Scotland, U.K.

Research Papers:

One hundred and ten (110) research papers published in journals of international repute.

Books:

- (i) A chapter on Thin Layer Chromatography was contributed in Encyclopedia of Analytical Sciences published by Academic press, London, (1995).
- (ii) One monograph on Environmental Pollution (Fazai Aloodgi in Urdu), published by Punjab University Press (1991).
- (iii) Three Chapters contributed in General Chemistry for B.Ed. students, published by Allama Iqbal Open University, Islamabad (1994)
- (iv) Three chapters were contributed in Text Book of Chemistry for IX and X class, published by Ministry of Education, Govt. of Pakistan, Islamabad.
- (v) Chapters contributed in Text Book of Chemistry for XI and XII class, published by Punjab Text Book Board, Lahore Punjab.
- (vi) Edited a Text Book of Chemistry for IX, published by Punjab Text Book Board, Lahore Punjab.
- (vii) Edited a Text Book of Chemistry for XII, published by Punjab Text Book Board, Lahore Punjab.
- (viii) Edited, Urdu Encyclopedia of Science, Urdu Sc. Board, Lahore.

Courses Taught at Home Institute:

- i) Atomic spectroscopy
- ii) Chromatographic Techniques
- iii) Thermal methods of Analysis
- iv) Electro-analytical methods
- v) Automation in Chemical Analysis
- vi) Drug/Clinical/industrial analysis
- vii) Laser Spectroscopy
- ix) Environmental Pollution
- x) Unit processes in Industry
- xi) Molecular fluorescence Spectroscopy
- x) Neutron Activation Analysis
- xi) plasma spectroscopy

Courses Arranged:

- i) A 14 days course for college teachers was arranged on "Spectroscopy" by collaboration with HEC, Islamabad in 1998.
- ii) A 10 days course for college teachers and research scholars was arranged on "Environmental Pollution" with the collaboration with HEC, Islamabad in 2002.
- iii) A 14 days course for University Laboratory Staff was arranged in Institute of Chemistry, University of the Punjab, Lahore in Aug 2005.

Professional Activities:

- i) To arrange seminars, lectures and meetings on environmental pollution with the collaboration of concerned departments.
- ii) To prepare environmental impact assessment reports for industries.
- iii) To arrange training & refresher courses in chemistry for college teachers with collaboration of University Grants commission and Ministry of education.
- iv) To evaluate chemistry text books for graduate and undergraduate classes prepared by Text Book boards and other agencies.
- v) To write articles in press about Education and Environmental pollution, to develop the awareness of general public.
- vi) To provide consultancy services in chemical analysis to local industry and other concerned clients.

Community Services:

- i) To arrange scholarships from industries and other agencies for needy students.
- ii) To organize blood donor societies at University level and arrange blood for needy patients.
- iii) To visit remote villages to provoke literacy in rural areas.
- iv) To arrange books for needy students at school and college level.

**PUBLICATIONS OF PROF. DR. CH. JAMIL ANWAR,
INSTITUTE OF CHEMISTRY, UNIVERSITY OF THE PUNJAB,
LAHORE- 54590, (PAKISTAN)**

1. Study of the donar properties of ethylacetoacetate. *Arab. J. Sci. & Engg. (S.Arabia)*, 2, 97, (1977).
2. Molybdenum(VI) complex with ethylacetoacetate. *Arab. J. Sci. & Engg. (S.Arabia)*, 5, 97, (1980).
3. Determination of tin in poly (vinyl chloride) by atomic absorption spectroscopy. *Talanta (U.K.)*, 29, 869, (1982).
4. Microdetermination of antimony in organoantimony compounds by atomic absorption spectrophotometry. *Analyst (U.K.)*, 107, 212, (1982).
5. Effect of organic solvents on atomic absorption of tin in air hydrogen flames: some anomalies and some intriguing flame chemistry. *Anal. Proceedings (U.K.)*, June 302, 1982.
6. Microdetermination of tin in organotin compounds by flame emission and atomic absorption spectrophotometry. *Analyst (U.K.)*, 107, 260, (1982).
7. Indirect atomic absorption spectrophotometric method for the determination of nitrate. *J. Chem. Soc. (Pak.)*, 7, 209, (1985).
8. A study of the factors affecting the microdetermination of sulphate by turbidimetry. *J. Chem. Soc. (Pak.)*, 7, 219, (1985).
9. Diethylmalonate complexes of iron(II), cobalt(II), nickel(II) and copper(II). *J. Sci. Res. (Pak.)*, XIII, 67, (1984).
10. Glycyrrahizin and its therapeutically active salts. *Pak. J. Sci.* 34, 61, 1982).
11. pH-rate profile for the hydrolysis of diphenyl p-nitrophenyl phosphate. *J. Chem. Soc. (Pak.)*, 7, 321, (1985).
12. Determination of sulphide in sediments by gas-phase molecular absorption spectrometry. *J. Chem. Soc. (Pak.)*, 8, 67, (1986).
13. Spectrophotometric determination of nitrate by formation of silver-1,10-phenanthroline-nitrate complex *J. Chem. Soc. (Pak.)*, 8, 73, (1986).
14. Indirect microdetermination of hydroxide ions by atomic absorption spectrophotometry. *Anal. Lett. (U.S.A.)*, 20, 379, (1987).

15. Elimination of the depression effects of certain anions in calcium emission by using organic solvents. *J. Sci. Res. (Pak.)*, XV, 33, (1986).
16. Indirect determination of nitrate by atomic absorption spectrophotometry. *Pak. J. Scient. & Ind. Res.*, 29, 332, (1986).
17. Indirect determination of nitrate by spectrophotometry. *J. Chem. Soc. (Pak.)*, 8, 475, (1986).
18. Effect of organic solvents on the atomic absorption of tin in air-hydrogen flames; (part-I). *J. Chem. Soc. (Pak.)*, 8, 461, (1986).
19. Effect of organic solvents on the atomic absorption of tin in air-hydrogen flames; visual observations and flame geometry (part-II). *J. Chem. Soc. (Pak.)*, 9, 597,(1987).
20. Effect of organic solvents on the atomic absorption of tin in air-hydrogen flames; spectroscopic studies of flame species (part-III). *J. Chem. Soc. (Pak.)*, 9, 603, (1987).
21. Effect of organic solvents on the atomic absorption of tin in air-hydrogen flames; analysis of flame gases and the conclusion (part-IV). *J. Chem. Soc. (Pak.)*, 9, 493,(1987).
22. Microdetermination of barium in formation water samples by atomic absorption spectrometry using matrix matching procedure. *J. Chem. Soc. (Pak.)*, 9, 353, (1987).
23. Nutritional evaluation of some brands of formula milk. *J. Sci. Res. (Pak.)*, XVI, 33, (1987).
24. Determination of cyanocobalamine in therapeutic injections by atomic absorption spectrometry. *J. Sci. Res. (Pak.)*,XVI, 41,(1987).
25. Microdetermination of sulphate by gas phase molecular absorption spectrometry. *J. Chem. Soc. (Pak.)*, 10, 49, (1988).
26. Microdetermination of molybdenum in organomolybdenum compounds by molecular emission and atomic absorption spectrophotometry. *Anal. Chim. Acta (U.K.)*, 207, 259, (1988).
27. Spectrophotometric determination of sulphide by liberation of thiocyanate ions from mercury(II)-thiocyanate. *J. Chem. Soc. (Pak.)*, 10, 351, (1988).

28. An indirect spectrophotometric method for the microdetermination of nitrogen (ammonia). **J. Chem. Soc. (Pak.)**, 10 , 381, (1988).
29. Determination of nitrogen (as ammonia) by indirect turbidimetric method. **Pak. J. Scient. & Ind. Res.**, 31, 820, (1988).
30. A comparative study of serum creatinine, urate and urea level in controlled diabetic and non-diabetic subjects. **J. Sci. Res. (Pak.)**, XVII , (1988).
31. Microdetermination of strontium in presence of higher levels of calcium. **J. Sci. Res. (Pak.)**, XVII , (1988).
32. Longitudinal study in hemoglobin, serum calcium, copper, magnesium and zinc during first trimester of pregnancy. **Ecology of Food & Nutrition (U.S.A.)**, 22 , 307, (1989)
33. Microdetermination of sulphide by indirect spectrophotometry. **J. Chem. Soc. (Pak.)**, 11, 121, (1989).
34. A new spectrophotometric method for the micridetermination of sulphate. **J. Chem. Soc. (Pak.)**, 11 , 37, (1989).
35. Indirect determination of ammonia by atomic absorption spectroscopy. **J. Chem. Soc. (Pak.)**, 11 , 117, (1989).
36. Determination of phosphate by using molecular emission of molybdenum. **Analas De Quimica,(SPAIN)** ,85 , 118, (1989).
37. Spectrophotometric determination of sulphide by the liberation of dithizone from mercury(II)-dithizonate. **J. Chem. Soc. (Pak.)**, 11 , 314, (1989).
38. Separation and identification of some anions by paper chromatography. **J. Chem. Soc. (Pak.)**, 11 , 318, (1989)
39. Spectrophotometric determination of aspirin in pharmaceutical preparations by oxidation with potassium dichromate. **J. Chem. Soc. (Pak.)**, 12, 30, (1990).
40. Determination of chloride by gas- phase molecular absorption spectroscopy. **J. Chem. Soc. (Pak.)**, 12, 48, (1990).
41. A new method for the determination of ascorbic acid. **J. Chem. Soc. (Pak.)**, 12, 75, (1990).

42. Determination of zinc by atomic absorption spectroscopy in pharmaceutical preparations by using mixed solvent system. **J. Chem. Soc. (Pak.),** 12, 157, (1990).
43. Study of the analytical methods for the assay of ferrous fumarate. **Pak. J. pharm.** 2, 49, (1989).
44. Comparison of serum cholesterol, triacylglycerol and lipase activity in controlled-diabetics and normal subjects. **J. Sci. Res. (Pak.)** XVII, 1, (1989).
45. Microdetermination of iodate by an indirect spectrophotometric method. **J. Chem. Soc. (Pak.),** 12, 145, (1990).
46. Determination of sulphide in non-polar media by mercury-dithizonate method. **J. Chem. Soc. (Pak.),** 12, 107, (1990).
47. Laser excited atomic fluorescence in graphite furnace in solid samples-Determination of thallium in bovine liver. Paper presented in 42nd Pittsburgh Conf. on **Anal. Chem. & Appl. Spectroscopy**, held in March 4-8, at Chicago, **U.S.A.**
48. Determination of trace metals in crude oil samples by atomic absorption spectroscopy using mixed solvent system. **J. Chem. Soc. (Pak.),** 12, 284, (1990).
49. Determination of sulphur by Methylene Blue method after reducing to H₂S with molten benzoin. **J. Chem. Soc. (Pak.),** 12, 259, (1990).
50. A new sensitive method for the micro determination of ascorbic acid. **J. Chem. Soc. (Pak.),** 12, 333, (1990).
51. Determination of sugars by indirect atomic absorption spectroscopy. Proceedings of 2nd National Chemistry Conference, Dec. (1990), Page 19.
52. Determination of silver in presence of some potential interferents by laser induced fluorescence in flames. **Microchemical Journal, U.S.A.** 43, 70, (1991).
53. Micro determination of fluoride by laser excited molecular fluorescence spectroscopy in a graphite furnace. **Microchemical Journal, U.S.A.** 43, 77, (1991).

54. Microdetermination of thallium in solid samples of bovine liver and tomato leaves by laser excited atomic fluorescence using a graphite furnace. ***Spectroscopy Letters, (U.S.A.)*** 24, No.6, (1991).
55. Determination of chloride at nanogram levels by laser excited molecular fluorescence in graphite furnace. ***Analyst, (U.K.)*** 116, 1025, (1991)
56. Bromide determination at nanogram levels by laser excited molecular fluorescence spectroscopy in graphite furnace. ***Talanta, (U.K.),*** 38, 1071, (1991).
57. Use of Iron(II)-DMG system for spectrophotometric determination of ammonia and other basic ions. ***J. Chem. Soc. (Pak.),*** 13, 201, (1991).
58. Longitudinal study in the concentration of serum calcium, copper, magnesium, zinc and hemoglobin during the last trimester of pregnancy in Pakistani women. ***Nutritional Res. (Canada),*** 11, 1341, (1991).
59. Effects of organic solvents and acids on the laser-induced fluorescence of tin in air-hydrogen flames. ***Mikrochimica Acta, (U.K.),*** 108, 285, (1992).
60. A novel reagent for the detection of Sn(II), Al(II) and Th(IV) ions after separation by paper chromatography. ***Science International,*** 5(1), 19, (1993).
61. Indirect spectrophotometric assay of epinephrine by oxidation with dichromate ions. ***Pak. J. Pharmacy*** 7, 29, (1994).
62. Characterization and antimicrobial activity of N,N-Dimethylbenzylamine complexes with zinc, cadmium, and mercury. ***Acta Scientia, (Pak.)*** 4, 25, (1994).
63. Spectrophotometric determination of aspirin and paracetamol in pharmaceutical formulations. ***Pak. J. Pharmacy,*** 8, 1-9, (1995).
64. More plates in one chromatographic tank. ***Chemical Education, (U.S.A)*** 72, 1136, (1995).
65. Effect of cooking on some proximate principals and hypolipidemic properties of garlic. Proc. of 2nd Int. Conf. On the Impact of Food Research on New Product Development, held in Karachi on January 28-31, 1995.

66. Studies of the reactions of tri(methylphenyl)stibines with halogens and interhalogens.
J. Anal. & Env. Chem. 3, 1,(1995)
67. Prevalence of some heavy trace minerals in the kidneys of renal failure patients. **J. Anal. & Env. Chem.** 3,91,(1995).
68. Thin-Layer Chromatography; Four simple activities for undergraduate students. **Chemical Education (U.S.A)** 73, No.10, 977-979,(1996).
69. Incidence of serum urate in high risk patients. **Science International.** 8, (1) (1996).
70. Microdetermination of chloride in variety of samples by indirect spectrophotometry. **J. Chem. Soc. Pak.** 18, No.2, 137,(1996).
71. Selective determination of Cr(VI) by indirect spectrophotometry. **J. Chem. Soc. Pak.** 18, No.4,291,(1996).
72. Selective determination of Cr(VI) by indirect atomic absorption spectroscopy. **J. Chem. Soc. Pak.** 18, No.4, 287,(1996).
73. A novel system for solvent flow for pressurized thin layer chromatography. **J. Chem. Soc. Pak.** 18, No.4, 298,(1996).
74. Study of aerial oxidation of sulphide in Tannery wastes **J. Chem. Soc. Pak.** 19, No.4, (1997).
75. Determination of Sulphide in sewerage waters and tannery wastes by indirect conductometry. Proceedings of 8th National Chemistry Conference, 2-4 Sept. (1997), Page 144.
76. Control of Hydrogen Sulphide in sewerage systems by using oxygen enrich salts. Proceedings of 9th National Chemistry Conference, 16-19 Dec. (1998), Page 112.
77. Circular thin layer chromatography by using a capillary feeder and a pressurized solvent flow system. **J. Saudi Chem. Soc. (Saudi Arabia)** 2,1,(1998).
78. Determination of sulphide in tannery wastes by indirect conductometry and potentiometry. **J. Chem. Soc. Pak.** 20, No. 4, 235, (1998).
79. Quality assurance and quality control measures in pesticide residue analysis. **The Nucleus**; 36, No.3-4, 225 (1999).

80. Quality assurance and quality control measures in pesticide residue analysis. **The Nucleus**, 36(3-4), 225-229, (1999).
81. Microdetermination of sulphate by indirect spectrophotometry. **J. Chem. Soc. Pak.** 22, No.2, 98(2000).
82. Microdetermination of iron and manganese in tea samples by flame atomic Absorption spectroscopy. **J. Chem. Soc. Pak.** 22, No.2, 94(2000).
83. The HPLC analysis of semi-synthetic Pencillins. **Chromatographia (USA)** 51, No.11/12, 755, (2000).
84. Zinc and manganese analysis in maize by Microwave Oven Digestion and flame atomic absorption spectrometry. **J. Food Composition and Analysis (U.K.)** 13, 837(2000).
85. Thin-Layer Chromatography: A Simple and reliable technique for the determination of pesticide residue in environmental samples. **Pak. J. Anal. Chem.** 1, 10-13,(2000).
86. Impact of pesticide applications in cotton Agroecosystem and soil bioactivity Studies 11: Nitrification Dynamics. **Pak. J. Biol. Sciences**; 4(5), 588-592, 2001.
87. Impact of pesticide applications in cotton Agroecosystem and soil bioactivity Studies II Microbial populations. **On-line journal of Biological Sciences (U.K)** 1(7): 640-644 (2001) .
88. Effect of repeated use of pesticides on soil dehydrogenase Activity in Cotton Fields **Pak. J. Soil Sc.**, 19, 56-59, (2001).
89. Impact of heavy repeated long term pesticide applications on soil properties in cotton agroeco system **IAEA Tech. Doc.**-1248:143-158(2001).
90. Impact of repeated pesticides applications on the binding and release of ¹⁴C-methamidohpos to soil matrices under field conditions. **IAEA Tech. Doc.**-1248, 163-166, (2001).
91. Mineralization and Volatilization of ¹⁴C-ring labeled 2,4-Dichlorophenoxy acetic acid Molecules in Pakistani soils. **IAEA Tech. Doc.** 1248, 159-162, (2001).
92. Effect of soil-bound residues of Malathion on soil microbial activities. **The Nucleus**; 38(2) 137-143,(2001).

93. Treatment of chromium and sulphide in tannery wastes ***The Pakistan Journal of Environmental Sciences***, Vol.1, No1, p.1. (2001).
94. Determination of five Phenothizines in pure and pharmaceutical preparations using vanadium pentoxide as a chromogenic reagent. ***Anal. Letters (USA)*** Vol.36. #14, (2003).
95. Aspects of the cross linking of polyethylene with vinyl silane. ***J. Appl. Polymer Science, (USA)***, Vol.92, p. 3796-3803, March, (2004).
96. Synthesis and characterization of Uranium(VI) and Thorium (IV) complexes with o-hydroxy N, N',dimethylbenzylamine and o-carboxy N,N' dimethylbenzylamine,. ***Radiochimica Acta (Germany)*** 92, 1-5 (2004).
97. A New Spectrophotometric Method for the Determination of nortriptylin-HCl from pure and Pharmaceutical Preparations. . ***J. Saudi Chem. Soc.***, Vol. 8, No.3 (2004), PP: 353-358.
98. A New Spectrophotometric Method for the Determination of promethazine-HCl from pure and Pharmaceutical Preparations. . ***Talanta (U.K.)***, Vol. 67(5) 2005, pp:869-872.
99. An efficient synthesis of 2-alkyl-4-hydroxy-2H-1, 2, benzothiazine-3-carboxamide-1, 1-dioxides, ***Bulliten of Korean Chem. Soc. (Korea)*** 26, 11, (2005) 1771.
100. Studies on thermal decomposition of Uranium(VI) and Thorium (IV) complexes with o-carboxy N, N',dimethylbenzylamine by thermoanalytical techniques in static air atmosphere. ***Radiochimica Acta (Germany)*** 94, 23-28, (2006).
101. Synergistic extraction of Ce(III), Eu(III) and Tm(III) with a mixture of picrolonic acid and benzo-15-crown-5 in chloroform ***J. Radio Analytical & Nuclear Chemistry (Germany)*** 267 #2(2006)421-425.
102. Synergistic extraction of Nd(III), Tb(III) and Lu(III) with a mixture of picrolonic acid and benzo-15-crown-5 in chloroform. ***Radiochimica Acta (Germany)*** 94, (2006) 475-480.
103. Synthesis of Potential Biologically Active 1,2-Benzothiazin-3-yl-quinazoline-4(3H)-ones. ***Chem.Pharm. Bull. (Japan)***, 54(8)(2006) 1175-1178.

104. Thermoanalytical (TG-DTA-DTG) investigations of uranium (VI) and thorium (IV) complexes of o-hydroxy-N,N'-dimethylbenzoylamine in static air atmosphere" ***Radiochimica Acta (Germany)*** 94, (2006) 853-858.
105. Direct determination of iron in geological samples by laser induced breakdown spectroscopy. ***J. Sci. Res.(Pak)*** XXXV. 1. (2006)pp. 15-24.
106. Extraction of rice braun oil from local rice husk using different solvents. ***J. Sci. Res.(Pak)*** XXXV. 1. (2006)pp. 59-64.
107. Chemical Determination of Dissolved Oxygen Without Iodometry – Old Problem, New Approach. ***J. Scientific Res. (Pak). XXXV No.2, (2006).***
108. N-[2-(Aminocarbonyl)phenyl]-4-hydroxy-2-methyl-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide dimethyl sulfoxide solvate ***Acta Crystatlographica, Sec. E, 63, 900-901(2007).***
109. N-[2-(Aminocarbonyl)phenyl]-4-hydroxy-2H-1,2-benzothiazine-3-carboxamide 1,1-dioxide dimethyl sulfoxide solvate ***Acta Crystatlographica, Sec. E, 63, 4215-4216 (2007).***
110. Development, Labeling, and clinical evaluation of ^{99m}Tc-ciprofloxacin in diagnosis of orthopedic infections: comparative study with ^{99m}Tc-methylene diphosphonate(^{99m}Tc-MDP) scintigraphy. ***Pharma Chem. (Italy), March (2007), pp:42-46.***
111. Synthesis, characterization, radiolabelling and biodistribution of chemotactic peptide ^{99m}Tc-cystine-fMLF as a potential renal infection imaging agent.. ***Pharma Chem. (Italy), March (2007), pp:46-51.***
112. Effectiveness of DOP mobilizer on the radiolysis of a semi-crystalline ethylene-propylene co-polymer ***Journal Nuclear Instruments and Methods in Physical Research, Part B. 265, (2007) pp.285-289.***
113. Use of Zebra Mussel (*Dreissena Polymorpha*) to access trace metals in river water. ***J. Scientific Res. Vol. XXXVII, No.1 (2007) p.9***
114. Recovery of Terephthalic acid from waste Poly (ethylene terephthalate) by Alkali fusion. ***J. Scientific Res. Vol. XXXVII, No.1 (2007) p.39***
115. Preparation of Oxalic acid from wheat straw ***J. Scientific Res. Vol. XXXVII, No.2 (2007) p.33***
116. KmnO4-Mediated Oxidative Bromination and Chlorination of Aromatic Systems using Ammonium Halides in Acetic Acid. ***J. Scientific Res. Vol. XXXVII, No.2 (2007) p.37***

117. Catalytic degradation of polystyrene ***Progress in Rubber, Plastics & Recycling Technology***, 24, No.1., (2008), p.47.
118. A study on contamination of aflatoxin M₁ in raw milk in the Punjab province of Pakistan ***Food Control*** 19,(2008),393-395
119. Preparation, characterization and biodistribution of the ^{99m}Tc-salicylidene-diamin-N-dione complex. ***J. Radioanalytical and Nuclear Chemistry***. No.2. 277 (2008) P:
120. Production of terephthalic acid from waste Poly(ethylene terephthalate) Materials. ***Polymer Engineering*** , (U.K.) 28. 3(2008).
121. Variations of level of aflatoxin M1 in raw milk from different localities in the central areas of Punjab, Pakistan. ***Food Control***, Vol. 19, No.8 (2008).

BOOKS

ENGLISH

- 1) A chapter on THIN-LAYER CHROMATOGRAPHY has been written for ***Encyclopedia of Analytical Science*** published by **Academic Press London**, (June 1995).
- 2) a) Three chapters entitled:
 - i) Periodic Table
 - ii) Atomic Structure
 - iii) Oxygen, Sulphur and Chlorinehave been contributed in *TEXT BOOK OF CHEMISTRY FOR CLASS IX-X* published by Ministry of Education, Government of Pakistan, Islamabad.
- 3) Two chapters of Practical Activities were contributed in *Pupil's Manual for Class IX-X*, published by Ministry of Education, Government of Pakistan, Islamabad.
- 4) The Author was also a CO-EDITOR for the TEXT BOOK OF CHEMISTRY FOR CLASS IX-X, published by Ministry of Education, Government of Pakistan,
- 5) Editor and Co-author of chemistry books for IX and XI class published in 2003 by Punjab Text Book Board. Lahore.

URDU

- 6) Three chapters entitled:
 - i) History of Chemistry
 - ii) Physical and Chemical Changes
 - iii) Separation Techniqueswere contributed in *CHEMISTRY TEACHING FOR B.Ed. CLASS* published by Allama Iqbal Open University, ISLAMABAD.
- 7) One Monograph on *Environmental Pollution (in Urdu)* Published by Punjab University Press, Lahore.
- 8) 10 volumes of Urdu Encyclopedia of Science were edited in 2006-07.