



## **Professor Dr. Iqbal Ahmad**

**M. Sc. (Kar.), Ph. D. (London), D. Sc.**

**Royal Society Fellow**

**Tamgha-e-Imtiaz**

**Department of Pharmaceutical Chemistry**

**Baqai Institute of Pharmaceutical Sciences**

**Baqai Medical University, Karachi**

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### **POSTAL ADDRESS**

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### **ACADEMIC QUALIFICATIONS**

B. Sc.	Karachi University	1960
M. Sc. Chemistry	Karachi University	1962
Ph. D. Pharmaceutical Chemistry	London University	1968
Thesis “ <i>A Study of Degradation of Riboflavin and Related Compounds</i> ”		
Postgraduate Diploma Statistics	Karachi University	1975
D. Sc. Pharmaceutical Chemistry	Karachi University	2014

## PROFESSIONAL QUALIFICATIONS

Registered Pharmacist (Category A)      Pharmacy Council of Sind      1976

## RESEARCH INTERESTS

Drug Analysis, Drug Stability, Preformulation and Formulation Development, Vitamin Interactions in Solution Media, Photochemistry of Medicinal Compounds, Laser Flash Photolysis Studies of Biochemical and Pharmaceutical Systems, Pharmaceutical and Herbal Drug Development.

## EXPERIENCE

### POSTDOCTORAL RESEARCH

1. Royal Society Fellow, Department of Biology, Imperial College, London, September 1989–December 1990.  
Worked with **Professor Lord G. Porter, O.M., P.R.S., Nobel Laureate** on “Laser Flash Photolysis Studies of Redox Reactions of Photosystem II D1/D2 Cytochrome b 559 Reaction Centres of Higher Plants”.
2. Research Associate, Department of Biochemistry, University of Arizona, Tucson, Arizona 85721, U.S.A., July 1980 - September 1981.  
Worked with **Professor G. Tollin, Regents’ Professor of Biochemistry and Chemistry** on “Laser Flash Photolysis Studies of Flavoproteins and Cytochromes”.
3. Postdoctoral Fellow, Research Division, North E. Wales Institute of Higher Education, Connah’s Quay, Clwyd CH5 4BR, U.K., September 1978–June 1980.  
Worked with **Professor G.O. Phillips** on “Photochemical Investigations of Flavins and Other Drug Systems”.

## **TEACHING**

1. Professor, Department of Pharmaceutical Chemistry, Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi, August 2006– todate.
2. Professor, Department of Pharmaceutical and Medicinal Chemistry, Dubai Pharmacy College, Dubai, January 1995–July 2006.
3. Professor, Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Karachi, Karachi, December 1985–July 1999 (From 25<sup>th</sup> January 1995 to 25<sup>th</sup> July 1999, on Foreign Service Leave, to take up a teaching assignment at Dubai Pharmacy College).
4. Associate Professor, Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Karachi, Karachi, October 1975–December 1985.
5. Assistant Professor, Department of Pharmacy/Pharmaceutical Chemistry, University of Karachi, Karachi, November 1969–October 1975.

## **INDUSTRIAL**

1. Research Chemist, Beecham Products/Pharmaceuticals, U.K., 1968-1969.
2. Technical Assistant, P.C.S.I.R. Laboratories., Karachi, 1962-1963.

## **ADMINISTRATIVE**

1. Director, Postgraduate Research Programme, Department of Pharmaceutical Chemistry, Baqai Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi, August 2006-todate.
2. Head, Department of Pharmaceutical and Medicinal Chemistry, Dubai Pharmacy College, Dubai, UAE, January 1995–July 2006.

**Established the Department at Dubai Pharmacy College as its First Head in January 1995.**

3. Chairman, Department of Pharmaceutical Chemistry, Faculty of Pharmacy, University of Karachi, September 1973–August 1975, October 1981–September 1987.

**Established the Department at the Faculty of Pharmacy, University of Karachi as its First Chairman in September 1973.**

4. In charge, Pharmaceutical Chemistry Section, Department of Pharmacy, University of Karachi, April-September, 1973.

### **OTHER POSITIONS**

1. Member, Editorial Board, Journal of Pharmacy, University of Punjab, Lahore.
2. Referee, Journal of the Chemical Society of Pakistan. Pakistan.
3. Referee, Pakistan Journal of Pharmaceutical Sciences. Pakistan.
4. External Examiner for Ph. D. Degree, University of Punjab, Lahore.
5. External Examiner for Ph. D. Degree, Hamdard University, Karachi.
6. Elected Member, Academic Council, University of Karachi, 1977.
  
7. Warden, Students Hostel, Wrexham, North E. Wales Institute of Higher Education, Connah's Quay, Clwyd CH5 4BR, U.K., 1978-1980.
8. Head, Alumni Unit, Dubai Pharmacy College, Dubai, UAE.
9. Head, Qualitative and Quantitative Analysis Group, Herbal Medicine Development Committee, Dubai Pharmacy College, Dubai, UAE.
10. Member Board of Studies, Institute of Tibbi Research, Hamdard University, Karachi.
11. Member Board of Studies in Pharmaceutical Chemistry, Faculty of Pharmacy, University of Karachi.
12. Member Board of Studies in Pharmaceutical Chemistry, college of Pharmacy, Dow University of Health Sciences, Karachi.
13. Member Board of Studies in Pharmaceutical Chemistry, Faculty of Pharmacy, University of Karachi.
14. Member Board of Studies in Pharmaceutical Chemistry, Faculty of Pharmacy, Hamdard University, Karachi.
15. Member of Board of Studies, Faculty of Pharmacy, Baqai Medical University, Karachi.
16. Member Editorial Advisory Board, The Open Analytical Chemistry Journal (Bentham).

### **AWARDS**

1. Royal Society, U.K. Fellowship Award, 1989.
2. Research Productivity Award, 2011, Ministry of Science and Technology, Government of Pakistan.
3. Dr. Prof. Khurana Prize for Best Article Published in Indian Journal of Pharmaceutical Sciences in 2012.
4. **Tamgha-e-Imtiaz** awarded by the President of Pakistan on 23<sup>rd</sup> March 2014.

## **RESEARCH GRANT**

Award of Research Grant of Rs. 5,808,308/- by Higher Education Commission on Project entitled “*Photostability Studies on Selected Drugs and Formulated Products*”, 2015.

## **MEMBERSHIP OF LEARNED SOCIETIES (PRESENT/PAST)**

1. Federation Internationale Pharmaceutique.
2. American Society for Photobiology.
3. British Photobiology Society.
4. European Photochemistry Association.
5. Pharmaceutical Society of Pakistan.
6. Chemical Society of Pakistan (Life).
7. Scientific Society of Pakistan.
8. Pakistan Pharmacological Society (Life).
9. Pakistan Association for Advancement of Science.
10. Pakistan Association of Scientists and Scientific Profession.

## **CURRENT RESEARCH PROJECTS**

1. Evaluation and development of analytical methods for herbal drugs.
2. Study of the formulation of pharmaceutical dosage forms.
3. Photochemical studies of vitamins and fluoroquinolones in liquid preparations.
4. Stability studies of pharmaceutical compounds and their preparations under various climatic conditions.
5. Development of stability-determining assay methods for multicomponent pharmaceutical systems.
6. Development of liposomal-drug delivery systems.

## **RESEARCH PUBLICATIONS**

Books, Chapters, Reviews

and Research Articles

Research Supervision

More than 150 in International and National Journals

65 Ph.D., M.Phil., M.Pharm., M.Sc. Theses

## **COUNTRIES VISITED**

Belgium, France, Germany, Holland, Irish Republic, Italy, Jordan, Lebanon, Mexico, Oman, Saudi Arabia, Singapore, Switzerland, Turkey, U.A.E., U.K., U.S.A.

## LIST OF PUBLICATIONS

### Books/ Chapters/ Reviews

#### Books

No	Authors	Title	Publisher/ Journal
1	<b>Iqbal Ahmad</b> , Khan Usmanghani	Analysis of Medicinal Compounds and Plant Drugs	Research Institute of Indusyunic Medicine, Karachi (2003)
2	<b>Iqbal Ahmad</b> , Sofia Ahmed, Muhammad Ali Sheraz, Faiyaz H.M. Vaid	BORATES Chemical, Pharmaceutical and Pharmacological Aspects	Nova Science Publishers, Inc., New York (2011)

#### Chapters

3	<b>Iqbal Ahmad</b>	Stability-Indicating Assays in Pharmaceutical Quality Control, <i>Proceedings International Seminar on Policies, Management and Quality Assurance of Pharmaceuticals</i> , (T. Ahmad and R. Khalid, Eds.)	Quality Control Authority, Ministry of Health, Government of Pakistan, Islamabad 256-264 (1985)
4	<b>Iqbal Ahmad</b> , Tauqeer Ahmed, Khan Usmanghani	Oxamniquine, <i>Analytical Profiles of Drug Substances</i> , (K. Florey, Ed.)	Academic Press, New York, <b>20</b> , 601-625 (1991).
5	<b>Iqbal Ahmad</b> , Tauqeer Ahmed, Khan Usmanghani	Amodiaquine Hydrochloride, <i>Analytical Profiles of Drug Substances and Excipients</i> (H.G. Brittain, Ed.)	Academic Press, New York, <b>21</b> , 43-73 (1993).
6	<b>Iqbal Ahmad</b> , Tauqeer Ahmed, Khan Usmanghani	Sulphacetamide, <i>Analytical Profiles of Drug Substances and Excipients</i> (H.G. Brittain, Ed.)	Academic Press, New York, <b>23</b> , 471-510 (1994).
7	K Usmanghani, <b>Iqbal Ahmad</b> , Amir Shadmani, Iqbal Azhar	Extraction Efficiency and Kinetics of Herbal Materials, <i>Herbal Medicine Industry In Pakistan: Issues Product Manufacturing Quality Control Research Development</i>	Research Institute of Indusyunic Medicine, Karachi 139-149 (2000)
8	Khan Usmanghani, <b>Iqbal Ahmad</b>	Medical Plants and Plant Extracts Sources, Utilization and Trades <i>Herbal Medicine Industry In Pakistan: Issues Product Manufacturing Quality Control Research Development</i>	Research Institute of Indusyunic Medicine, Karachi 157-200 (2000)

- 9 **Iqbal Ahmad**, Faiyaz H.M. Vaid Photochemistry of Flavins in Aqueous and Organic Solvents, *Flavins Photochemistry and Photobiology* (E. Silva and A.M. Edwards, Eds.) Royal Society of Chemistry, Cambridge, 13-40 (2006).
- 10 **Iqbal Ahmad**, Sofia Ahmed, Muhammad Ali Sheraz and Faiyaz H. M. Vaid Borate: Toxicity, Effect on Drug Stability and Analytical Applications, *Handbook on Borates: Chemistry, Production and Applications* (M.P. Chung, Ed.) Nova Science Publishers, Inc., NY, USA, 19–58 (2010)
- 11 **Iqbal Ahmad**, Sofia Ahmed, Muhammad Ali Sheraz, Kefi Iqbal and Faiyaz H. M. Vaid Pharmacological Aspects of Borates, In: *Advances in Materials Science Research* (Maryann C. Wythers, Editor) Volume 9, Nova Science Publishers, Inc., New York, USA, pp. 27–55, ISBN: 978–1–61324–485–2 (2012).
- 12 **Iqbal Ahmad**, Muhammad Ali Sheraz, Sofia Ahmed and Faiyaz H. M. Vaid Analytical Applications of Borates, In: *Advances in Materials Science Research* (Maryann C. Wythers, Editor) Volume 9, Nova Science Publishers, Inc., New York, USA, pp. 27–55, ISBN: 978–1–61324–485–2 (2012).
- 13 **Iqbal Ahmad**, Kefi Iqbal, Sofia Ahmed, Muhammad Ali Sheraz, Mohammad Aminuddin Applications of Laser Flash Photolysis, Spectroscopy and Electron Microscopy in Photopolymerization and Development of Glass Ionomer Dental Cements, In: *Clinical Dentistry Research Compendium* (Giuseppe Alessandro Scardina, Editor) Nova Science Publishers, Inc., New York, USA, pp. 57–74, ISBN: 978–1–62257–574–9 (2013).
- 14 Muhammad Ali Sheraz, Marium Fatima Khan, Sofia Ahmed, **Iqbal Ahmad** Pharmacological Effects of Ascorbic Acid”, In: *Vitamin C: Dietary Sources, Technology, Daily Requirements and Symptoms of Deficiency* (Raquel P. F. Guine, Editor) Nova Science Publishers, Inc., New York, USA, Chapter 10, ISBN: 978–1–62948–154–8 (2013).

## Reviews

- 15 Sofia Ahmed, MA Sheraz, **Iqbal Ahmad** Advances in antioxidant activity of vitamin E *J. Baqai Med. Univ.*, **10** (2), 13-18, (2007).
- 16 MA Sheraz, Sofia Ahmed, **Iqbal Ahmad** Development in the clinical and food analysis of vitamin C *J. Baqai Med. Univ.*, **10** (2), 19-24, (2007).
- 17 Kefi Iqbal, **Iqbal Ahmad**, M Aminuddin Development of glass- ionomer cements as dental restorative *J. Baqai Med. Univ.*, **10** (2), 9-12, (2007).

- 18 MA Sheraz, Sofia Ahmed, **Iqbal Ahmad** materials  
Effect of borates on the stability of chemical and pharmaceutical compounds *J. Baqai Med. Univ.*, **11** (1), 13-15, (2008).
- 19 Sofia Ahmed, Muhammad Ali Sheraz and **Iqbal Ahmad** Vitamin A: Nutritional value and role in public health *J. Baqai Med. Univ.*, **11** (2), 35-40 (2008).
- 20 MA Sheraz, Sofia Ahmed, **Iqbal Ahmad**, SR Khattak Mechanism of bacterial resistance *J. Baqai Med. Univ.*, **12**(1), 35-38, (2009).
- 21 Kefi Iqbal, **Iqbal Ahmad**, MA Sheraz, Sofia Ahmed, M Aminuddin, Tania Mirza Use of different-curing units in setting of dental restorative materials *J. Baqai Med. Univ.*, **12**(1), 51-54, (2009).
- 22 Tania Mirza, Kiran Qadeer and **Iqbal Ahmad** Clinical Analysis of Vitamin-D and Metabolites *J. Baqai Med. Univ.*, **12**(1), 25-28 (2009).
- 23 Tania Mirza, Kiran Qadeer, Sadia Hafeez, Kefi Iqbal and **Iqbal Ahmad** Folic Acid and Deficiency Diseases *J. Baqai Med. Univ.*, **12**(1), 47-50, (2009).
- 24 Tania Mirza, Urooj Nazim, Rahela Bano, Kefi Iqbal and **Iqbal Ahmad** Clinical Analysis, Metabolism and Bioavailability of Thiamine *J. Baqai Med. Univ.*, **12**(2), 45-49, (2009).
- 25 Tania Mirza, Sadia Hafeez Kazi, Zufi Shad, Kefi Iqbal and **Iqbal Ahmad** Biochemical Importance, Deficiency and Clinical Assay of Cyanocobalamin *J. Baqai Med. Univ.*, **12**(2), 51-55 (2009).
- 26 Muhammad Ali Sheraz, Sofia Ahmed, Sadia Hafeez Kazi, Tania Mirza and **Iqbal Ahmad** The Malpractices in Drugs Sale and Implementation of Pharmaceutical Care *J. Baqai Med. Univ.*, **12** (2), 19-25 (2009).
- 27 Sofia Ahmed, Muhammad Ali Sheraz, Zufi Shad and **Iqbal Ahmad** Botulinum Toxin: Biochemical Aspects, Applications and Adverse Effects *J. Baqai Med. Univ.*, **12** (2), 39-43 (2009).
- 28 **Iqbal Ahmad**, MA Sheraz, Sofia Ahmed, Faiyaz HM Vaid Analytical applications of borates *Mater. Sci. Res. J.* **3** (3/4), 173-202 (2009).
- 29 Kefi Iqbal, **Iqbal Ahmad**, M Aminuddin Spectroscopic techniques in the development of glass ionomer cements *J. Pak. Dent. Assoc.*, **18** (2), 70-73, (2009)
- 30 **Iqbal Ahmad**, Faiyaz HM Vaid, Sofia Ahmed, MA Sheraz, Sohail Hasan Advances in biochemical functions and the photochemistry of flavins and flavoproteins. *Int. J. Chem. Anal. Sci.* **1** (2), 18-21 (2010).
- 31 MA Sheraz, Sofia Ahmed, **Iqbal Ahmad**, Photodegradation and photostabilization of ascorbic acid *Int. J. Chem. Anal. Sci.* **1** (4), 68-70 (2010).



- Kiran Qadeer, Faiyaz HM Vaid in pharmaceutical preparations.
- 32 Sofia Ahmed, MA Sheraz, Kefi Iqbal, **Iqbal Ahmad** Surgical trends in the treatment of Parkinson's disease and their outcome *J. Med. Sci.* **3 (3)**, 142-152 (2010).
- 33 **Iqbal Ahmad**, Sofia Ahmed, MA Sheraz, Kefi Iqbal, Faiyaz HM Vaid Pharmacological aspects of borates *Int. J. Med. Biol. Front.* **16 (9/10)**, 977–1003 (2010).
- 34 Tania Mirza, SH Kazi, **Iqbal Ahmad** Physiological functions, role in metabolism and clinical analysis of riboflavin *J. Baqai Med. Univ.*, **13(1)**, 21-26,(2010).
- 35 **Iqbal Ahmad**, Kefi Iqbal, Sofia Ahmed, MA Sheraz Applications of laser flash photolysis, spectroscopy and electron microscopy in photopolymerization and development of glass ionomer dental cements *Int. J. Clin. Dent.* **4 (1)**, 57–73 (2011).
- 36 MA Sheraz, Sofia Ahmed, **Iqbal Ahmad**, Faiyaz HM Vaid, Kefi Iqbal Formulation and stability of ascorbic acid in topical preparations *Syst. Rev. Pharm.* **2 (2)**, 86–90 (2011).
- 37 Tania Mirza, Kiran Qadeer, **Iqbal Ahmad** Biochemical functions and clinical/pharmaceutical analysis of nicotinamide *J. Baqai Med. Univ.* **13(2)**, 35-39 (2012)
- 38 Adeel Arsalan, Arif Sabah, **Iqbal Ahmad**, SBS Naqvi, SI Ali The role of antiseptics in surgery *J. Baqai Med. Univ.* **13(2)**, 47-54 (2012)
- 39 Tania Mirza, Kiran Qadeer, Iqbal Ahmad and Riaz H Shaikh Biochemical functions and pharmaceutical and clinical analysis of nicotinamide *J. Baqai Med. Univ.* **13(2)**, 41-45 (2012)
- 40 Adeel Arsalan, Arif Sabah, **Iqbal Ahmad** Liposomes as drug delivery systems *Pak. J. Pharm. Sci.* (2014), submitted
- 41 Tania Mirza, Kiran Qadeer, Iqbal Ahmad Clinical and pharmaceutical analysis of vitamin A *J. Baqai Med. Univ.* (2014), submitted
- 42 **Iqbal Ahmad**, Tania Mirza, Kiran Qadeer, Urooj Nazim, Faiyaz HM Vaid Vitamin B<sub>6</sub>: Deficiency diseases and methods of analysis *Pak. J. Pharm. Sci.*, (2014) in press
- 43 Kiran Qadeer, Tania Mirza, **Iqbal Ahmad** Developments in the clinical use of aspirin *Baqai J. Health Sci.* (2014), in press
- 44 Arif Sabah, Adeel Arsalan, Iqbal Ahmad Packaging of solid dosage form *Baqai J. Health Sci.* (2014), in press

## INTERNATIONAL RESEARCH ARTICLES / PRESENTATIONS

No.	Authors	Title	Journal / Presentation
45	<b>Iqbal Ahmad</b>	Thermal and photochemical degradation of riboflavin and related substances (Abstract).	Drug Purity Research Symposium, London, 26 <sup>th</sup> June, 1968
46	K Usman Ghani, <b>Iqbal Ahmad</b> , SMS Zoha	Photodegradation of ephedrine hydrochloride.	Proc. CENTO Panel Meeting on Natural Drugs and Their Commercial Exploitation, Peshawar, 60-63 (1972).
47	<b>Iqbal Ahmad</b> , AE Beg, SMS Zoha	Multicomponent spectrophotometric assay of riboflavin and degradation product in thermolysed solutions.	Abstr: 35 <sup>th</sup> International Congress of Pharmaceutical Sciences, Dublin, 20 (1975)
48	<b>Iqbal Ahmad</b>	Statistical methods in the design of pharmaceutical formulations (Abstract).	International Congress of Mathematical Sciences, Karachi, 14-20 July, 1975
49	K Usman Ghani, Q Najum Saqib, <b>Iqbal Ahmad</b> , V Ahmad	Studies on the spogenin constituents of <i>Androsace rotundifolia</i> ,	<i>Lloyida</i> (Currently <i>J. Nat. Prod.</i> ), <b>4</b> , 281-282, (1978)
50	<b>Iqbal Ahmad</b> , MA Khan, K Usman Ghani, T Salam	Spectrophotometric determination of hydrolytic products of Reserpine	<i>Die Pharmazie</i> , <b>34</b> , 402-403, (1979)
51	<b>Iqbal Ahmed</b> , HDC Rapson, PF Heelis, GO Phillipis	The alkaline hydrolysis of 7,8-dimethyl-10-formylmethylisoalloxazine - A kinetic study	<i>J. Org. Chem.</i> , <b>45</b> , 731-733 (1980)
52	PF Heelis, GO Phillips, <b>Iqbal Ahmad</b> , HDC Rapson	The photodegradation of formylmethylflavin- A continuous and flash photolysis study	<i>Photobiochem. Photobiophys.</i> , <b>1</b> , 125-130 (1980).
53	Tauqir Ahmad, <b>Iqbal Ahmad</b>	Degradation studies on sulphacetamide eye drops: Part-I	<i>Die Pharmazie</i> , <b>36</b> , 619-621 (1981).
54	<b>Iqbal Ahmad</b> , Gordon Tollin	Flavin triplet quenching and semiquinone formation by aliphatic $\alpha$ -substituted acetic acids. Intermediates in flavin-sensitised photodecarboxylation	<i>Photochem. Photobiol.</i> , <b>34</b> , 441-445 (1981).
55	<b>Iqbal Ahmad</b> , Gordon Tollin	Solvent effects on flavin electron transfer reactions	<i>Biochemistry</i> , <b>20</b> , 5925-5928 (1981)
56	<b>Iqbal Ahmad</b> , Michael A. Cussanovich, Gordon Tollin	Laser flash photolysis studies on electron transfer between semiquinone and fully reduced free flavins and	<i>Proc. Natl. Acad. Sci., USA</i> , <b>68</b> , 6724-6728 (1981).

- 57 **Iqbal Ahmad**, Micheal A. Cussanovich, Gordon Tollin horse heart cytochrome-c Laser flash photolysis studies on electron transfer between semiquinone and fully reduced free flavins and cytochrome-c oxidase complex. *Biochemistry*, **21**, 3122-3128 (1982).
- 58 Nasima Jamil, Hasan A Rizvi, **Iqbal Ahmad**, AE Beg Studies on the photostability of reserpine in parenteral solutions. *Pharmazie*, **38**, 467-469 (1983).
- 59 Tauqir Ahmad, **Iqbal Ahmad** The effect of antioxidants on the photolysis of aqueous sulphacetamide and sulfanilamide solutions. *Pol. J. Pharmacol. Pharm.*, **35**, 69-74 (1983)
- 60 S Navarantum, EJ Land, BJ Parsons, **Iqbal Ahmad**, GO Phillips Primary processes in the laser flash photolysis and pulse radiolysis of 1-ephedrine. *Photochem. Photobiol.*, **38**, 153-158 (1983)
- 61 Tasneem Ahmad and **Iqbal Ahmad** Modern techniques in pharmaceutical quality control (Abstract). International Seminar on Policies Management and Quality Assurance of Pharmaceuticals, Karachi, 21-25 April, 1985
- 62 **Iqbal Ahmad** Analytical problems in pharmaceutical industry (Abstract). UNESCO-UGC Regional Workshop (Bangladesh, India and Pakistan) on University Industry Interaction in Chemistry, Islamabad, 7-9 October, 1985.
- 63 **Iqbal Ahmad** Stability of drugs in relation to extreme climatic conditions of temperature, humidity and light (Abstract). Seventh Pharmaceutical conference of PPA, Islamabad, 28-30 March, 1986
- 64 **Iqbal Ahmad**, MA Khan, S Wasif Azeem Nitric acid induced oxidation of reserpine in organic solvents. *Die Pharmazie*, **44**, 612-613 (1989).
- 65 **Iqbal Ahmad**, HDC Rapson Multicomponent spectrophotometric assay of riboflavin and photoproducts. *J. Pharm. Biomed. Anal.*, **8**, 217-223 (1990).
- 66 **Iqbal Ahmad**, Wahid Hussain Photolysis of cyanocobalamin in aqueous solution (Abstract). First International Conference of Pharmaceutical Sciences, Karachi, 18-21 January, 1992
- 67 PJ Booth, B Crystall, **Iqbal Ahmad**, J Barber, G Porter, DR Klug Observation of multiple radical pair states in photosystem 2 reaction centers. *Biochemistry*, **30**, 7573-7586 (1991).

- 68 **Iqbal Ahmad**, Wahid Hussain, AA Faridi Photolysis of cyanocobalamin in aqueous solution *J. Pharm. Biomed. Anal.*, **10**, 9-15 (1992).
- 69 **Iqbal Ahmad**, Wahid Hussain Riboflavin induced photolysis of cyanocobalamin in aqueous solutions (Abstract) Fourteenth Asian Congress of Pharmaceutical Sciences, Lahore, 5-9 November, 1992
- 70 **Iqbal Ahmad**, LB Giorgi, J Barber, G Porter, s DR Klug, Redox potentials of cytochrome b-559 in D1/D2/cytochrome b-559 reaction centres of photosystem 2 *Biochim. Biophys. Acta.*, **1143**, 239-242 (1993).
- 71 Waseemuddin Ahmed, K Usmanghani, **Iqbal Ahmad**, V Ahmad, Toshio Miyase Isolation and characterization of saponins from castansopermum- australe Cunn. & Fraser *Chem. Pharm. Bull. (Japan)* **47**, 314-317 (1994).
- 72 M. Jamil Akhtar, MA Khan, **Iqbal Ahmad** High performance liquid chromatographic determination of folic acid and its photodegradation products in the presence of riboflavin *J. Pharm. Biomed. Anal.* **16**, 95-99 (1997).
- 73 M. Jamil Akhtar, MA Khan, **Iqbal Ahmad** Photodegradation of folic acid in aqueous solution *J. Pharm. Biomed. Anal.*, **19**, 269-275 (1999)
- 74 M. Jamil Akhtar, MA Khan, **Iqbal Ahmad** Effect of riboflavin on the photolysis of folic acid in aqueous solution *J. Pharm. Biomed. Anal.*, **23**, 1039-1044 (2000).
- 75 **Iqbal Ahmad** Effect of nicotinamide on the Photolysis of Cyanocobalamin in Aqueous Solution (Abstract) 1st International Conference of Faculty of Pharmacy and Health Sciences, Ajman University of Science and Technology, Ajman, UAE, 19-21 October, 2002
- 76 M. Jamil Akhtar, MA Khan, **Iqbal Ahmad** Identification of photoproducts of folic acid and its degradation pathways in aqueous solution *J. Pharm. Biomed. Anal.*, **31**, 579-588 (2003).
- 77 **Iqbal Ahmad**, IA Ansari, T Ismail Effect of nicotinamide on photolysis of cyanocobalamin in aqueous solution *J. Pharm. Biomed. Anal.*, **31**, 369-374 (2003).
- 78 **Iqbal Ahmad**, Q Fasihullah, A Noor, IAAnsari, QNM Ali Photolysis of riboflavin in aqueous Solution: A kinetic study *Int. J. Pharm.*, **280**, 199-208 (2004).

- 79 **Iqbal Ahmad, Q**  
Fasihullah, Faiyaz  
HM Vaid A study of simultaneous  
photolysis and photoaddition  
reactions of riboflavin in  
aqueous solution *J. Photochem. Photobiol. B: Biol.*, **75**,  
13-20 (2004).
- 80 **Iqbal Ahmad** Stability-indicating  
spectrophotometric methods  
and their applications to  
degradation studies of  
vitamins/other drugs and  
mixture analysis (Abstract).  
Dubai Pharmacy College Seminars,  
2nd Semester 2003-2004, 5th June  
2004.
- 81 **Iqbal Ahmad, Q**  
Fasihullah, Faiyaz  
HM Vaid Effect of phosphate buffer on  
photodegradation reactions  
of riboflavin in aqueous  
solution *J. Photochem. Photobiol. B: Biol.*, **78**,  
229-234 (2005).
- 82 **Iqbal Ahmad, Q**  
Fasihullah, Faiyaz  
HM Vaid Effect of light intensity and  
wavelengths on  
photodegradation reactions  
of riboflavin in aqueous  
solution *J. Photochem. Photobiol. B: Biol.*, **82**,  
21-27 (2006)
- 83 **Iqbal Ahmad, Q**  
Fasihullah, Faiyaz  
HM Vaid Photolysis of  
Formylmethylflavin in  
Aqueous and Organic  
Solvents *Photochem. Photobiol. Sci.*, **5**, 680-  
685 (2006).
- 84 B. M. El-Haj, A. M.  
Al-Amri, H. S. Ali,  
**Iqbal Ahmad** GC-MS detection and  
characterization of thebaine  
as a urinary marker of opium  
use *Forensic Toxicol.* **25**, 62–68 (2007).
- 85 **Iqbal Ahmad, S.**  
Ahmed, MA Sheraz  
and Faiyaz HM  
Vaid Effect of borate buffer on the  
photolysis of riboflavin in  
aqueous solution *J. Photochem. Photobiol. B: Biol.* **93**,  
82-87 (2008).
- 86 **Iqbal Ahmad,**  
Sofia Ahmed, MA  
Sheraz, M  
Aminuddin, Faiyaz  
HM Vaid Effect of caffeine  
complexation on the  
photolysis of riboflavin in  
aqueous solution: A kinetic  
study *Chem. Pharm. Bull. (Japan)* **57** (12),  
1363–1370 (2009).
- 87 **Iqbal Ahmad, MA**  
Sheraz, Riaz  
Hussain Shaikh,  
Sofia Ahmed,  
Faiyaz HM Vaid Photostability of ascorbic  
acid in aqueous and organic  
solvents *J. Pharm. Res.* **3** (6), 1237-1239  
(2010).
- 88 **Iqbal Ahmad,**  
Sofia Ahmed,  
Muhammad Ali  
Sheraz, Faiyaz  
H.M. Vaid and Effect of Divalent Ions on  
Photodegradation Kinetics  
and Pathways of Riboflavin  
in Aqueous Solution *Int. J. Pharm.* **390** (2), 174–182  
(2010).

- 89 Izhar A. Ansari.  
Sofia Ahmed, MA  
Sheraz. M  
Aminuddin, **Iqbal  
Ahmad**, Karamat  
Mahmood, Kefi  
Iqbal  
Analysis of amino acids by  
paper chromatography  
*Int. J. Chem. Ana. Sci.* **1** (8), 174–176  
(2010).
- 90 M Aminuddin,  
Sofia Ahmed, MA  
Sheraz, **Iqbal  
Ahmad**, Karamat  
Mahmood, J.N.  
Miller  
Fluorescent Labeling of  
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- 104 Muhammad Ali Sheraz, Sadia Hafeez Kazi, Sofia Ahmed, Tania Mirza, **Iqbal Ahmad**, Maxim P. Evstigneev Effect of Phosphate Buffer on the Complexation and Photochemical Interaction of Riboflavin and Caffeine in Aqueous Solution: A Kinetic Study. *J Photochem Photobiol. A: Chem.* 273, 17–22 (2014).
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- 111 **Iqbal Ahmad**, Syed Haider Abbas, Zubair Anwar, Muhammad Ali Sheraz, Sofia Ahmed, Adeel Arsalan, Raheela Bano. Stability-Indicating Photochemical Method for the Assay of Riboflavin: Lumichrome Method. *Journal of Chemistry*, 2015, 256087 (2015).
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#### NATIONAL RESEARCH ARTICLES / PRESENTATIONS

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- 111 **Iqbal Ahmad,** N Jamil, SMS Zoha Statistical evaluation of assay procedures for ascorbic acid in tablet formulations *J. Sci. Univ. Kar.,* **1** (2), 63-68 (1972).
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- 126 **Iqbal Ahmad**, Syed Abid Sayeed A study of the evaluation of commercial and laboratory prepared tooth paste preparations *J. Pharm. Univ. Kar.*, **1** (1), 31-37 (1982).
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- 134 Nasima Jamil, **Iqbal Ahmad** Stability of effervescent tablets of ascorbic acid *Tehqique*, **3** (1), 7–14 (1985).
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- 139 Tauqir Ahmad, **Iqbal Ahmad** Photo-oxidation of sulphanilamide to azo and azoxy compounds *Pak. J. Pharm. Sci.*, **2** (1), 1-5 (1989).
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- 160 S. Wasif Azeem, M. Ataullah Khan, **Iqbal Ahmad** Characterisation of oxidation products of Rauwolfia alkaloids *Pak. J. Pharm. Sci.*, **18** (1), 33-35 (2005).
- 161 Faiyaz HM Vaid, Riaz H. Shaikh, Izhar A. Ansari, **Iqbal Ahmad** Spectral study of the photolysis of aqueous thiamine hydrochloride and ascorbic acid solutions in the presence and absence of riboflavin *J. Chem. Soc. Pak.*, **27**, 227-232 (2005).
- 162 Sobhi A Said, Saeed A Khan, **Iqbal Ahmad**, Hayam S Ali Chemical composition of Egyptian and UAE Propolis *Pak. J. Pharm. Sci.*, **19** (1), 58-61 (2006).
- 163 Saeed A Khan, **Iqbal Ahmad**, Siddiq Mohajjirs Evaluation of mineral contents of some edible medicinal plants *Pak. J. Pharm. Sci.*, **19** (2), 148-152 (2006)
- 164 Faiyaz HM Vaid, Riaz H Shaikh, Izhar A Ansari, **Iqbal Ahmad** Chromatographic study of the photolysis of aqueous thiamine hydrochloride and ascorbic acid solutions in the presence and absence of riboflavin *J. Chem. Soc. Pak.*, **28** (5), 461-464 (2006).
- 165 **Iqbal Ahmad** Ethical practices in pharmaceutical marketing Symposium "Marketing of Pharmaceutical Products Assessing the Moral and Ethical Issues" Karachi, 17 August (2006)
- 166 **Iqbal Ahmad** Effect of complexing agents on photodegradation of riboflavin in aqueous solution Medical Symposium, Baqai Medical University, Karachi, 18-20 February, 2007
- 167 **Iqbal Ahmad**, Faiyaz HM Vaid Thermal degradation of 7,8-dimethyl-10-formylmethylisoalloxazine in *J. Chem. Soc. Pak.*, **30** (5), 688-691 (2008).

- 168 **Iqbal Ahmad** and F.H.M. Vaid acid solution: A kinetic study Determination of benzoic acid and salicylic acid in commercial benzoic and salicylic acids ointments by spectrophotometric method *Pak. J. Pharm. Sci.* **22** (1), 18-22 (2009).
- 169 Kefi Iqbal, Sana Adeba Islam, **Iqbal Ahmad**, Maria Asmat and Mohammad Aminuddin Variations in powder/liquid ratio of a restorative and luting glass ionomer cement in dental clinics *JCPSP.* **19** (7), 464-465 (2009)
- 170 **Iqbal Ahmad** Stability studies of drug and formulated products Seminar “ Current Trends and Future Scope of Pharmacy in Pakistan”, Baqai Medical University, Karachi, 11<sup>th</sup> May 2010
- 171 **Iqbal Ahmad** Photodegradation of riboflavin in aqueous solution Seminar “Research and Development Strategies in Pharmaceuticals” Hamdard University, Karachi, June 10, 2010.
- 172 **Iqbal Ahmad** Photostability of drugs and its evaluation Seminar “ the Concept of modern pharmacy” Baqai Medical University, Karachi, 30<sup>th</sup> November, 2011
- 173 **Iqbal Ahmad**, Kiran Qadeer, Ambreen Hafeez, Faiyaz HM Vaid Multicomponent spectrophotometric assay of cyanocobalamin, hydroxocobalamin and ascorbic acid in aqueous solution *Pak. J. Pharm. Sci.*, 27 (2), 209-215 (2014)
- 174 Noureen Anwar, Sofia Ahmed, Sadia Hafeez Kazi, Muhammad Ali Sheraz, Iqbal Ahmad. Sulfacetamide: An Ophthalmic Anti-Infective Agent. *Journal of Pharmacy and Pharmaceutical Sciences*, 1 (2), 28–33 (2014)
- 175 Marium Fatima Khan, Muhammad Ali Sheraz, Sofia Ahmed, Sadia Hafeez Kazi, Iqbal Ahmad. Emulsion Separation, Classification and Stability Assessment. *Journal of Pharmacy and Pharmaceutical Sciences*, 2 (2), 56–62 (2014).
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**PARTICIPATION IN NATIONAL/INTERNATIONAL CONGRESS / CONFERENCES / EXHIBITIONS / MEETINGS / SEMINARS / SYMPOSIA / WORKSHOPS (NO PRESENTATION)**

- 1 Symposium "Interaction of Drugs with Receptors". Chelsea College of Science and Technology London, 5-8 April, 1965.
- 2 WHO Travelling Seminar "Quality Control of Pharmaceutical Preparations" Islamabad/Lahore/**Karachi**/Tehran/ Cairo, 9-21 March, 1970.
- 3 First International Symposium "Natural Products Chemistry combined with a Pak-US workshop" Karachi, 5-9 February, 1984.
- 4 Second International Symposium, Pakistan-U.S. Binational and UNESCO-SCAPM Workshop "Natural Products Chemistry" Karachi, 18-25 January, 1986.
- 5 British Photobiology Society Annual Meeting London, 18 December, 1989.
- 6 Fifth AFRC Meeting on Photosynthesis London, 4-6 April, 1990.
- 7 International Conference on Lasers in Chemistry Trieste, Italy, 11-15 June, 1990.
- 8 Fifth International Symposium and Pakistan-U.S. Binational Workshop "Natural Products Chemistry" Karachi, 5-9 January, 1992.
- 9 WHO-Ministry of Health workshop on Pharmacy Education Lahore, 10-11 November, 1992.
- 10 Arab Pharma '96 - International Exhibition & Conference for Pharmaceutical Products & Technology Dubai, UAE, 12-14 October, 1996.
- 11 Saturn GC/MS and GC/MS/MS Seminar, Varian Instruments, USA, Organised by Gulf Scientific Corporation Dubai, UAE, 18th September, 1999.
- 12 Dubai Pharmaceuticals & Technologies Conference and Exhibition Dubai, UAE, 20-22 November, 1999.
- 13 Seminar on FT-IR & FT-NMR Spectroscopy, Bruker Analytic, Germany, Organised by BDH Middle East Dubai, UAE, 9th March, 2001.
- 14 Dubai World Pharmacy Meeting Dubai, UAE, 20-21 April, 2001.



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|----|--|---|
| 15 | Dubai International Pharmaceuticals & Technologies Conference & Exhibition                   | Dubai, UAE, 9-11 March, 2002.                           |
| 16 | Gulf Education and Training Exhibition   | Dubai, UAE, 9-12 April, 2002.                           |
| 17 | Symposium “Micromedex Drug Information Database”   | Dubai Pharmacy College, Dubai, UAE, 30th October, 2002. |
| 18 | Dubai International Pharmaceuticals and Technologies Conference & Exhibition                 | Dubai, UAE, 1-3 March, 2003.                            |
| 19 | Seminar and Workshop on Public Speaking,   | Dubai Pharmacy College, Dubai, UAE, 4th March 2003.     |
| 20 | Pharmaceutical Care Workshop   | Dubai Pharmacy College, Dubai, UAE, 23rd March, 2003.   |
| 21 | Glovit Symposium on “Drug-Herb Interactions and Neutraceuticals”                             | Sharjah, UAE, 13th May, 2003.                           |
| 22 | Workshop on LC/MS/MS in Pharmaceutical Industry, Micromass MS Technologies                   | Dubai, UAE, 9th December, 2003.                         |
| 23 | Seminar “ Total Quality Management in Educational Institutions”                              | Dubai, UAE, 10th March, 2004.                           |
| 24 | Inductively Coupled Plasma and UV-Vis-NIR Spectrophotometry Seminar, Varian Instruments, USA | Dubai, UAE, 15th March, 2004.                           |
| 25 | Dubai International Pharmaceuticals and Technologies Conference & Exhibition                 | Dubai, UAE, 20 - 22 March, 2004.                        |
| 26 | Dubai International Pharmaceuticals and Technologies Conference & Exhibition                 | Dubai, UAE, 21-23 March, 2005.                          |
| 27 | Dubai International Pharmaceuticals and Technologies Conference & Exhibition                 | Dubai, UAE, 13-15 March, 2006.                          |
| 28 | Workshop “Chemistry for Life Science Professionals”  | University of Karachi, Karachi, May 5-10, 2008          |
| 29 | Seminar “The Expert Speaks”,   | Baqai Medical University, Karachi, November 11, 2010.   |
| 30 | “Pharmaceutical Exhibition–2011”,  | Baqai Medical University, Karachi, April 21, 2011.      |

**GUEST SPEAKER**

- |   |   |   |
|---|---|---|
| 1 | Standardisation of Drug Substances and Formulated Products.   | Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi, August 1999. |
| 2 | ”   | Faculty of Pharmacy, University of Karachi, Karachi. August 1999.                     |
| 3 | Pharmacopoeial Assay Methods - A Comparative Study of British Pharmacopoeia and United States Pharmacopoeia | Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi, August 2000. |
| 4 | ”   | Faculty of Pharmacy, University of Karachi, Karachi. August 2000.                     |
| 5 | Assay of Drugs and Metabolites in Biological Fluids   | Faculty of Eastern Medicine, Hamdard University, Karachi, August 2001                 |
| 6 | ”   | Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi, August 2001  |
| 7 | ”   | Faculty of Pharmacy, University of Karachi,   |

8	Pharmacy Profession and Career Opportunities for Pharmacists	Karachi, August 2001
9	Pharmacopoeial Methods of Quality Control of Plant Drugs and Their Preparations	Department of Pharmacy, Jinnah University for Women, Karachi, 19 August 2002.
10	"	of Eastern Medicine, Hamdard University, Karachi, August 2002.
11	Pharmacopoeial Methods of Quality Control of Plant Drugs and Their Preparations	Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi, August 2002.
12	Standardization of Drug Substances and Formulated Products	Faculty of Pharmacy, University of Karachi, August 2002.
13	Herbal Medicines	the Department of Pharmacy, Jinnah University for Women, Karachi, 18 August 2003
14	"	Faculty of Eastern Medicine, Hamdard University, Karachi;
15	"	Institute of Pharmaceutical Sciences, Baqai Medical University, Karachi
16	Quality Control and Standardization of Herbal/Plant Drugs and Their Preparations	Faculty of Pharmacy, University of Karachi in August 2003.
17	Stability Studies of Drugs and Formulated Products	Herbion Pakistan Limited, Karachi, 15 June 2012
		Ziauddin university, Karachi, 2 April 2013

#### **THESES DIRECTED FOR HIGHER DEGREES**

##### **Ph.D.**

1	Studies on the Stability of Sulphacetamide and Degradation Products	Tauqir Ahmad, 1978.
	<b>First Ph.D. in Pharmacy From the University of Karachi</b>	
2	Photolysis of Flavins in Aqueous and Organic Solvents	Qazi Fasihullah, 1988.
3	Studies on the Oxidation Reaction of Yohimbane Alkaloids (In collaboration with Professor Dr. M. Ataullah Khan)	Syed Wasif Azeem, 1995.
4	Riboflavin Sensitised Photodegradation of Ascorbic Acid	Riaz Hussain Shaikh, 1997.
5	Photolysis and Interaction of Thiamine Hydrochloride with Riboflavin in Aqueous Solution	Faiyaz Hussain Madani Vaid, 1998.
6	Degradation Kinetics and Interaction of Folic Acid with Riboflavin in Aqueous Solution (In collaboration with Professor Dr. M. Ataullah Khan)	M. Jamil Akhter, 1998.
7	A Study of Photochemical Interaction of Cyanocobalamin with Thiamine and Pyridoxine	Masroor Ahmad, 2001.
8	Photolysis and Interactions of Cyanocobalamin with some B-Vitamins and Ascorbic Acid in Parenteral Solutions (In collaboration with Professor Dr. Qazi Nawab Manzar)	Izhar Ahmad Ansari, 2002.

- 9 Phytochemical and Pharmacological Studies on *Castanospermum australe* (In collaboration with Prof. Dr. Usmanghani Khan) Sayed Waseemudin Ahmad, 1993.
- 10 Effect of Complexing Agents on Photodegradation of Riboflavin in Aqueous Solution Sofia Ahmed, 2009.
- 11 Photostability of Ascorbic Acid in Creams and Lotions Muhammad Ali Sheraz, 2009.
- 12 Stability of Betamethasone Esters in Some Topical Dosage Forms and Its Impact on Their Biological Potential (In collaboration with Prof. Dr. Dilnawaz Shaikh and Prof. Dr. Usmanghani Khan) Saif ur Rehman Khattak, 2010
- 13 Determination of Drug Impurities in Drug Substances (In collaboration with Prof. Dr. Dilnawaz Shaikh and Prof. Dr. Usmanghani Khan) Najam us Saquib, 2010
- 14 Development of Glass Ionomer Cements as Dental Restorative Material Kefi Iqbal, 2011.
- 15 Photochemical and Computational studies on the Intraaction of Riboflavin and Cyanocobalamin (In collaboration with Prof. Dr. Naheed Akhter) Ambreen Hafeez, 2012, Submitted
- 16 Clinical Efficacy of Herbal Coded Formulation Gouticin in Gouty Arthritis and in Vitro Xanthine Oxidase Inhibition (in collaboration with Prof. Dr. Usmanghani Khan) Muhammad Akram Khan, 2012, submitted
- 17 Formulation and Stability of Some Fluoroquinolone Derivatives in Liquid Preparations Raheela Bano, 2015
- 18 Photostabilization of Some Drugs Using Liposome-based Systems Adeel Arsalan, in progress
- 19 Evaluation and Development of Packaging Material for Selected Solid and Liquid Dosage Forms Arif Sabah, in progress
- 20 Effect of Ascorbic Acid and Reducing Agents on the Stability of Cyanocobalamin Kiran Qadeer, in progress
- 21 Degradation of Flavins in Aqueous and Organic Solvents Tania Mirza, in progress
- M. Phil.**
- 22 A Study of the Thermal Degradation of Riboflavin in Alkaline Solution Anwar Ejaz Beg, 1974
- First M. Phil. in Pharmacy From the University of Karachi**
- 23 Multicomponent Spectrophotometric Analysis of Pharmaceutical Compounds Azhar Ali Fareedi, 1976.
- 24 A Study of the Photostability of Reserpine in Parenteral Solutions (In collaboration with Dr. Anwar Ejaz Beg) Nasima Jamil, 1980.
- 25 A study of the Stability and Interaction of Hydroxocobalamin with Ascorbic Acid, (In collaboration with Dr. Waqar Hussain) Tehmina Ismail, 1996

- 26 Solvent Effect on the Photostability of Vitamin A and Analogues (In collaboration with Professor Dr. Tauqir Ahmad) Tasneem Mubeen, 1996.
- 27 Photo- and thermal degradation of piroxicam in aqueous solution. Urooj Nazim, 2010.
- 28 Effect of Buffers and Solvents on the Hydrolysis of Aspirin and its Stability in Solid Formulation Kiran Qadeer, 2010.
- 29 Stability Testing of the Pharmaceutical Products in Aluminium Foil as Packaging Material Arif Sabah, 2010
- 30 Stabilization of Ascorbic Acid Solutions in Presence of Different Antioxidants and Additives Zufi Shad, 2013
- 31 Phostability of Ofloxacin in Aqueous Solutions Tania Mirza, 2013
- 32 Effect of phosphate buffer on the photodegradation of riboflavin in the presence of caffeine (In collaboration with Dr. Muhammad Ali Sheraz) Sadia Hafeez Kazi, 2013
- 33 Effect of certain buffers on the photolysis of Riboflavin Zubair Anwar, 2013
- 34 Simultaneous Spectrophotometric Determination of Drugs in Various Pharmaceutical Preparations (In collaboration with Prof. Dr. M Aminuddin) Aqeela Khurshid, 2013
- 35 Stability and Interaction of Ascorbic Acid in Liquid Preparations Adeela Khurshid, 2013
- 36 Stability of Ascorbic Acid In Semisolid Preparations (In collaboration with Dr. Muhammad Ali Sheraz) Marium Fatima Khan, 2013
- 37 Stability of sulfacetamide sodium in ophthalmic preparations (In collaboration with Dr. Sofia Ahmed) Noureen Anwar, 2014
- 38 The Interaction of nicotinamide with Ascorbic Acid Muhammad Furqan Mobin, 2014
- 39 Riboflavin Sensitized Photooxidation of Amino Acids in Parenteral Solutions Waqas Bin Aftab, 2014
- M. Pharm**
- 39 A Study of the Stability of Thiamine-HCl in Vitamin B-Complex Syrups Mirza Anees Ahmad, 1972.
- First M. Pharm. from University of Karachi.**
- 40 A Study of the Stability of Ascorbic Acid in Solid Formulations Nasima Jamil, 1972.
- 41 A Study of the Stability of Sulphacetamide Sodium Eye-Drops Yaqoob Noor, 1972.
- 42 A Study of the Thermal Degradation of Procaine HCl in Aqueous Solution Manzar Ahmad Qureshi, 1973.
- 43 Diffusion of Salicylic Acid from Ointment and Cream Bases Surraiya Nusrat, 1974.
- 44 A Study of the Thermal Degradation of Reserpine in Acid Solution Muddasir Ali Khan, 1974.
- 45 Assay of Pyridoxine-HCl in Vitamin Preparations and its Photostability in Alkaline Solution (in collaboration with K. Usmanghani) Syed Nasim-ur-Rehman, 1974.

- 46 Dissolution Rate Studies in Sulpaguanidine Tablets Waqar Hussain, 1974.
- 47 Effect of Buffer Salts on Photolysis of Riboflavin Solutions Saleem Ahmad Tatari, 1975.
- 48 A Study of the Decomposition of Acetylsalicylic Acid in Solid Formulations Mirza Mohammad Hussain, 1975.
- 49 Evaluation of Acid-Dye Method for the Assay of Vitamin B<sub>1</sub> in Pharmaceutical Preparations Tasneem Ahmad, 1975.
- 50 Statistical Methods in Analytical Control and Standardisation of Reserpine Tablets Ali Akbar Sial, 1975.
- 51 Thermal Stability of Reserpine Injections Tanweer Salam, 1976.
- 52 Effect of Metal Ions on Photolysis of Riboflavin Solutions Shaheen Salam, 1976.
- 53 Formulation and Stability of Tooth Paste Preparations Syed Abid Saeed, 1976.
- 54 A Study of the Thermal Degradation of Riboflavin in Acid Solution Salma Jamil, 1977.
- 55 Stability of Vitamin C in Liquid Preparations Salahuddin Qureshi, 1977.
- 56 Photostability of Vitamin B<sub>12</sub> in Liquid Preparations Syed Izhar Hussain, 1978.
- 57 Effect of pH on the Photostability of Cyanocobalamin Wahid Hussain, 1987.
- 58 Evaluation of Preservatives in Eye Drop Preparations Kamran Ahmad Chisti, 1988.
- 59 Photolysis of Cyanocobalamin Solutions in Presence of Ascorbic Acid S.M.A.G. Hasani, 1993.
- 60 Stabilization of Cyanocobalamin Solutions Masroor Ahmad, 1993.
- 61 Effect of Packaging Materials on the Stability of Acetaminophen (Paracetamol) in Solid Dosage Forms Riaz Hussain Shaikh, 1993.
- 62 Effect of Nicotinamide on the Photolysis of Cyanocobalamin Izhar Ahmad Ansari, 1994.
- 63 Effect of Solvent on the Photolysis of Ergocalciferol (In collaboration with Dr. Tauqir Ahmad) Arshad Majeed 1994.
- 64 Photostability of Ciprofloxacin in Aqueous Solution (in collaboration with Dr. Sohail Hassan) Maria Qureshi, 2011
- M.Sc.**
- 65 Acetylation Phenotyping of Local UAE Population using Caffeine as a Probe Shamma Saeed Lootah, 2002  
(in collaboration with Prof. J.S. Qadry)  
**First M.Sc. from Dubai Pharmacy College**

## **IMPORTANT CONTRIBUTION TO PHARMACEUTICAL AND BIOCHEMICAL RESEARCH**

- 1.** Laser flash photolysis studies of biochemical and pharmaceutical systems. International Publications No. 48, 50-53, 56, 63.
- 2.** Quantitative and kinetic studies of photodegradation of vitamins in aqueous and organic solvents. International Publications No. 47, 61, 64, 69, 72, 74, 75, 77- 79, 81, 83, 84, 86, 91, 95.
- 3.** Bimolecular interactions of vitamins in aqueous and organic solvents. First and subsequent studies in the last five decades. International Publications No. 68, 70, 71, 73, 82, 87, 90, 92.
- 4.** Determination of rate-pH profiles for the photolysis of vitamins in aqueous solution. First studies on these vitamins in last five decades. International Publications No. 47, 64, 69, 70, 71, 73, 74, 83, 87, 92, 95. Other publications are in progress.
- 5.** Development of stability-indicating multicomponent spectrophotometric methods for degradation studies of vitamins. International Publications No. 43, 46, 47, 61, 64, 75, 76.
- 6.** Study of solvent characteristics (e.g. dielectric constant, viscosity, solvent donor-accepter number) on the kinetics of chemical reactions. International Publications No. 51, 60, 79, 83, 95. Other publications are in progress.
- 7.** Determination of dual character of life times of primary radical pair in photosystem 2 reaction centres and redox potentials of Cytochrome b-559. International Publications No. 63.
- 8.** Photodegradation / photostability studies on drugs and pharmaceutical systems. International Publications No. 42, 49, 54, 55, 60, 87-89, 94, 96, 97.
- 9.** Contribution to structural studies of plant constituents. International Publication No. 45, 66, 67, 80.
- 10.** Buffer effect on photodegradation of riboflavin. International Publication No. 75, 77, 78, 81, 86, 93, 95.

## CONTRIBUTION TO THE DEVELOPMENT OF EDUCATION AND RESEARCH

Professor Dr. Iqbal Ahmad obtained Ph.D. degree in Pharmaceutical Chemistry from the University of London in 1968 and joined the Department of Pharmacy, University of Karachi in 1969. He was responsible for the organization of the Department, as its first Chairman, under the newly established Faculty of Pharmacy at the University of Karachi, in 1973 and played a leading role in the development of the academic programmes of the Faculty. He initiated research activities in the Department of Pharmacy/Pharmaceutical Chemistry and supervised the first M. Pharm. (1972), first M. Phil. (1974) and first Ph. D. (1978) thesis in the Faculty of Pharmacy. He has guided 65 students for M. Sc./ M. Pharm. / M. Phil. / Ph. D. degrees.

Professor Ahmad has conducted extensive Postdoctoral Research in academic institutions and industry in the United Kingdom and United States for about five years mainly in the field of Laser Flash Photolysis Studies of Electron Transfer Reactions in Flavoproteins and Cytochromes and Photochemical Investigations of Several Drug Systems. He has the privilege of working as a Royal Society Fellow with Professor Lord G. Porter, O.M., PRS, Nobel Laureate at Imperial College London, on Redox and Kinetic Studies of Photosystem II D1/D2 Cytochrome b559 reaction Centres of Higher Plants. He has more than 150 publications to his credit including books, chapters, reviews and research articles in the field of Drug Stability, Drug Analysis, Formulation Development, Flavin and other Drugs Photochemistry and Biological Electron Transfer Reactions. He has contributed three monographs on “Oxamniquine, Amodiaquine Hydrochloride and Sulphacetamide” in the series on “Analytical Profiles of Drug Substances” (Klaus Florey/H.G. Brittain, Ed.) published by Academic Press, New York. He has also contributed chapters on the “Photochemistry of Flavins in Aqueous and Organic Solvents” in a monograph published on Flavins (E. Silva and A. M. Edwards, Eds.) by Royal Society of Chemistry, U.K and on “Borate: Toxicity, Effect on Drug Stability and Analytical Applications” in Handbook of Borates: Chemistry, Productions and Applications (M. P. Chung, Ed.) by Nova Science Publishers, New York. He has also published books on the “Analysis of Medicinal Compounds and Plant Drugs” and “Borates Chemical, Pharmaceutical and Pharmacological Aspects”.

Professor Ahmad established the Department of Pharmaceutical and Medicinal Chemistry at Dubai Pharmacy College in 1995 as its first Chairman, designed the B. Pharm. curricula and organised the academic programmes of the Department. He continued active participation in the research programmes of the Department of Pharmaceutical Chemistry, University of Karachi and guided several students for Ph. D. degrees during his stay at Dubai.

Professor Ahmad has participated in several National and International Conferences / Symposia / Workshops and has presented research papers on various aspects of Physical and Analytical Pharmacy and Quality Control of Drugs. He has delivered lectures as Invited/Guest Speaker on many subjects of current interest to Pharmacy students in various Universities of Pakistan. He is a member of several National / International Learned Societies.