

Dr. Khadiga Mohamed Omar Kelani
Professor of Pharmaceutical Analytical Chemistry
Faculty of Pharmacy, Cairo University
khadigakelani@gmail.com
Mobile: 01001151459

Current Position:

Vice-Dean for Graduate Studies, Community Development and Environmental Affairs,
Faculty of Pharmacy, Modern University for Technology and Information (MTI), Cairo,
Egypt

Academic Degrees:

Ph.D. Analytical Chemistry, Faculty of Pharmacy, Cairo University, Egypt.
M.Sc. Analytical Chemistry, Faculty of Pharmacy, Cairo University, Egypt.
B.Sc. Pharmacy, Faculty of Pharmacy, Cairo University, Egypt.

Employment History:

2020 – Present: Vice Dean for Graduate Studies and Research, Community
Development and Environmental Affairs, MTI University, Cairo, Egypt.
2015 – 2020: Vice Dean for Students and Education Affairs, MTI University,
Cairo, Egypt.
2014 – 2015: Professor and Chairman of Analytical Chemistry Department,
MTI University, Cairo, Egypt
2012-2013: Professor of Analytical Chemistry, Faculty of Pharmacy, Cairo University,
Egypt
2007-2012: Professor and Chairman of Analytical Chemistry Department, Faculty of
Pharmacy, 6 October University, Cairo, Egypt.
2004-2007: Professor of Analytical Chemistry, Faculty of Pharmacy, Cairo University,
Egypt
1999-2004: Associate Professor of Analytical Chemistry, Faculty of Pharmacy, Cairo
University, Egypt
1993 - 1999: Lecturer of Analytical Chemistry, Faculty of Pharmacy, Cairo University,
Egypt
(1989 - 1993): Lecturer of Analytical Chemistry, Faculty of Medical Sciences, Nairobi
University, Nairobi. Kenya.
1986 - 1989: Lecturer of Analytical Chemistry, Faculty of Pharmacy, Cairo University,
Egypt
1979 - 1986: Assistant Lecturer of Analytical Chemistry, Faculty of Pharmacy, Cairo
University, Egypt
1972 - 1979: Instructor of Analytical Chemistry, Faculty of Pharmacy, Cairo University,
Egypt.

Professional specialized training:

- Nuclear Magnetic Resonance (NMR) training at Faculty of Science, Cairo University (1996).
- Instrumental Analysis training at the National Organization for Drug Control and Research (1996).

Graduate research supervision:

More than 40 MSc and PhD students at Cairo, Zagazig, Damanhur and Al-Azhar Universities.

Evaluation of scientific production for the rank of Professor and Assistant Professor (Pharmaceutical Analytical Chemistry):

Supreme Council of Universities.

Membership of PhD and MSc thesis evaluation committees (Pharmaceutical Analytical Chemistry):

Cairo, Alexandria, Zagazig, Damanhur and Al-Azhar Universities.

Courses Taught:

1. Pharmaceutical Analytical Chemistry:

Detection and identification of different inorganic substances singly or in a mixture: separation techniques, color reactions, precipitation, filtration, evaporation, flame tests, ignition and semi-microanalytical tests of the qualitative analysis of anion, cations and difficulties, which may be present in an inorganic mixture. General principles of quantitative analysis including standard solutions accurate measuring instruments, acid-base titrations and non-aqueous titrations. General principles of compleximetry, precipitometry, oxidation-reduction, gravimetric and electrochemical methods of analysis including conductometry, potentiometry and polarography. Different instrumental and chromatographic methods of analysis. Representative pharmaceutical applications of all studied analytical methods.

2. Instrumental Analysis:

General introduction to instrumental analytical methods instrumentation and applications : spectrometric methods, components of optical instruments, introduction to optical atomic spectrometry, atomic absorption and atomic fluorescence spectrometry, atomic emission spectrometry, introduction to molecular spectroscopy including UV/visible absorption spectrometry, molecular luminescence, infrared spectrometry, nuclear magnetic resonance and molecular mass spectrometry, electrochemical methods: conductometry, potentiometry and polarography, chromatographic analytical methods: GC, LC, HPLC, TLC, HPTLC. Representative pharmaceutical applications.

3. Advanced Instrumental Analysis:

Principles and applications of advanced analytical instruments in the fields of chemistry, biology, geology, environmental sciences and marine sciences. Course topics cover electro-analytical chemistry, atomic spectroscopy, and molecular spectroscopy and separation methods.

4. Food Analysis:

Principles, methods, and techniques of qualitative and quantitative physical, chemical and biochemical analysis of foods, principles of classical and instrumental methods of analysis. Criteria for the choice of various analytical methods. Methods of treating data, sampling techniques. FDA guidelines for food analysis with representative examples.

5. Analytical Quality Control:

Definition of QC & QA, GLP & GAP Quality Assurance establishments and relevant activities, Good laboratory practicing (GLP) guidelines, Quality management and quality control activities in pharmaceutical industries and clinical investigation units, Quality Assurance and Regulatory matters, Principals of analytical techniques and the evaluation of official monographs.

Drug standards, Sampling, Development of analytical control of laboratory, Documentation, Analytical method of validation, Reference standards, Drug stability and stability indicating methods(degradation stability of drug, chemical degradation routes),practical analytical assay of pharmaceutical drugs and analytical methods for assessment of Q.C.

Publications:

More than 80 research articles in international journals. List available upon request.
