

KHALIL A. ABOUD, Ph.D.

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CURRENT APPOINTMENT

Associate Research Scientist, Director and Faculty Supervisor of X-ray facilities.
Department of Chemistry, University of Florida, 1995-present

PREVIOUS APPOINTMENT

Assistant Research Scientist, Director and Faculty Supervisor of X-ray facilities.
Department of Chemistry, University of Florida, 1990-1995

PERSONAL

Married to Dr. Kristen M. Kemple (Associate Professor of Education). Two children:
Nicholas Khalil and Alisaar Anne

CITIZENSHIP

Lebanon. Permanent Resident of theUSA

LANGUAGES

Fluency in English, Arabic, Armenian. Reading and translation in French

EDUCATION

Postdoctoral Fellow, Department of Chemistry, The University of Texas at Austin, March
1986 - August 1990 (with Professors R. E. Davis and S. H. Simonsen)

Ph.D (Inorganic Chemistry (major), Analytical Chemistry (minor). Structural Chemistry,
X-ray Crystallography), Louisiana State University, 1985 (with Professor Stephen F.
Watkins)

C.A.P.E.S (equivalent to an M.S. degree in Chemistry Education), Lebanese National
University, 1978 B.S. in Chemistry Education, Lebanese National University, 1977

AWARDS

Full scholarship to study for the Ph.D. in chemistry in the United States, awarded by the Lebanese National University. This scholarship is awarded once a year in chemistry and to only one student, based upon the best graduate and undergraduate performances.

Full scholarship to study for the B.S. and MS. in chemistry, awarded by the Lebanese National University.

GRANTS & CONTRACTS

Proposal for the acquisition of a micro-crystal and protein diffraction facility at sector 10 (MR-CAT) of the Advanced Photon Source: Joint to NSF and NIH (1998)	\$482,000
Proposal for the Purchase of a Single-Crystal and a Powder X-ray Diffractometers: National Science Foundation (1994)	\$485,000
Crystals with non-linear optical properties: UF Department of Sponsored Research (1992)	\$25,000
Computation system for X-ray Crystallography: UF Department of Sponsored Research (1991)	\$10,015
Collaborative contracts	\$19,000

TEACHING EXPERIENCE:

Graduate

Structure Determination by Single Crystal X-ray Diffraction, University of Florida (Spring 1994, 1996, 1998)

Undergraduate

Freshman Chemistry, lectures, University of Texas at Austin, Spring 1989

Freshman Chemistry I and II, lectures and labs, Austin Community College, Summer 1986 through Fall 1988

Organic Chemistry, lectures and lab, Austin Community College, Summer 1986 through Fall, 1988

Freshman Chemistry, lab, Louisiana State University, Summer 1981 through Summer 1985

Undergraduate Research: Supervision of X-Ray Crystallography undergraduate research projects, The University of Texas at Austin, Spring 1986 through Summer, 1990

Summer Science Training Program: Supervision of X-Ray Crystallography research projects by high school honor students, The University of Texas at Austin, Summer 1987

Secondary

Assistant principal & chemistry faculty, Ashrafieh Public High School, Beirut Lebanon), September 1978 through October 1979

Chemistry, School of Modern Education, Beirut, Lebanon, Fall 1973 through Spring 1975 and Fall 1976 through Spring 1978

Math, School of Modern Education, Beirut, Lebanon, Fall 1973 through Spring 1975 and Fall 1976 through Spring 1978

SELECTED PROFESSIONAL PRESENTATIONS (out of 87 total)

(Full list of professional presentations available upon request)

"Structural Studies of Gold(III) Coordination Compounds with Pyridyl Ligands". Alan J. Jircitano, Cora MacBeth, Shaun O. Sommerer and Khalil A. Abboud. American Crystallographic Association 1995 Annual Meeting, Montreal, Canada, July 1995.

"Optical and Transport Properties of [M(dmit)₂] Organic Conductors". Liu, H. -L.; Pullen, A. E.; Piotraschke, J.; Reynolds, J. R.; Tanner, D. B. Bull. Am. Phys. Soc 1995, 40, 805. American Physical Society National Meeting, San Jose, California, March 1996.

"Advanced Intramolecular Diels-Alder Study Toward the Synthesis of (-)-Morphine". Gabor Butora, Andrew G. Gum, Tomas Hudlicky and Khalil A. Abboud. National American Chemical Society Meeting. San Francisco, CA, April 19, 1997.

"Rotational Isomerism and Intramolecular Proton Transfer in Group (V) and (VI) Imido Alkylidene Compounds". Doufou P.; Vaughn, W. M.; Cajigal, M. L.; Blosch L. L.; Abboud, K. A.; James M. Boncella. 211th National American Chemical Society Meeting, April 1996.

"Synthesis, Structure and magnetism of Quasi-Linear S=2 Antiferromagnetic Chains". Brian H. Ward, Khalil A. Abboud, Barrett E. Granroth, Mark W. Meisel and Daniel R. Talham. Florida Advanced Materials Conference. Palm Coast, FL. March 1997.

RESEARCH EXPERIENCE

University of Florida

Director and Faculty Supervisor of the X-ray facilities in the Department of Chemistry at the University of Florida. Recently conducted first experiment of x-ray diffraction at the Advanced Photon Source (Argonne) collecting data on small molecule crystals and protein crystals and using Insertion device and Bending magnet sources.

X-ray Diffractometers:

SMART PLATFORM with a CCD area detector driven by a pentium PC. SMART and ASTRO for data collection, SAINT for data reduction, and SHELXTL V5 for structure solution, refinement and graphics.

P3m/e-LT-1 driven by a NOVA4 computer, upgraded to VAX control in 1991, upgraded to PC control in 1993. Data collection, structure solution and refinement and graphics. SHELXTL plus on VAXstation 3100.

Syntex P driven by a NOVA4 computers . Data collection, structure solution, refinement and graphics (SHELXTL on a Data General Eclipse desktop, molecular graphics (XFG in SHELXTL); SHELXTL plus on VAXstation 3100.

Computer systems & software:

Silicon Graphics Indy computer with unix Operating system, VAXstation 3100 with VMS/VAX operating system, several Personal computers and Macintoshes. SHELXTL running on the Indy, VAX and PC's. Cambridge Structural Database running on the VAX and Indy.

University of Texas at Austin

Postdoctoral fellow: March 1986 - August 1990. Single Crystal X-Ray Diffraction, data collection (SYNTEX P21-LT1 driven by NOVA4 computer; NICOLET R3m/V-LT2) structure solution and refinement (SHELX76, SHELX86 and MULTAN on the Dual Cyber 170/750 with EMS; SHELXTL PLUS on Vaxstation II minicomputer for the R3m/V data. VAX/VMS operating system and two graphics work stations controlled by NEC personal computers. Molecular graphics (XP). MS-DOS operating system. PHILIPS, vertical scanning powder diffraction. Cambridge structural database. Macintosh personal computer for graphics and word processing. ORTEP program for molecular drawing and several Fortran programs for molecular calculations on the Dual Cyber system. Professors S.H. Simonsen and R.E. Davis, mentors.

Louisiana State University at Baton Rouge

January 1980 - August 1985, Single Crystal X-Ray Diffraction, data collection (ENRAF NONIUS CAD4 diffractometer), structure solution and refinement (MULTAN, SHELX76 and XRAY73 on the main frame IBM computer, SDP (structure determination package on PDP 11/34 computer), structure drawing (PLUTO, ORTEP), cambridge structural database, molecular mechanics calculation (MM2, MMPI), PROPHET graphics and FORTRAN programming. Professor S. F. Watkins, mentor.

Lebanese National University

September 1977 - June 1978, comparative analysis of mineral water in Lebanon, Masters degree thesis. Investigation of various inorganic ions present in several brands of mineral water in Lebanon using gravimetric and volumetric analysis and spectrophotometry.

PROFESSIONAL AFFILIATIONS

American Crystallographic Association

American Chemical Society American

Association for the Advancement of Science

American Lebanese Engineering Society (ALES)

Member of the Scholarship Committee (ALES)

HONORARY SOCIETIES

Phi Lambda Upsilon (Chemistry Honor Society)

Beta Alpha Phi (International Honor Society)

OTHER

Faculty Advisor, American Lebanese Student Association of the University of Florida (Since 1990)

President, Lebanese Student Association of Louisiana State University, April 1983 - April 1984 (Member 1980-1985)