## **CURRICULUM VITAE**

#### Thomas A. Kubic

## **Current Professional Positions**

Full time Associate Professor (1996 - Present) - John Jay College of Criminal Justice - 524 West 59<sup>th</sup> Street, New York, NY 10019. (212) 237-8892.

## Formal Educational Background

Institution	Degree	Field	Date Awarded
City University of N. Y.	Ph.D.	(Crim. J	ust.) Forensic Sci.
	10/03		
City University of N.Y.	M. Phil.	Criminal Justice	6/97
St. John's University	J.D.	Law	6/79
C. W. Post College	M.S.	Chemistry	6/74
C. W. Post College	B.A.	Chemistry	6/67
St. John's University	6 Credits	Toxicology	1973-74
St. John's University	14 Credits	Business	1971-72

# **Teaching Experience**

Associate Professor (2004 - Current), John Jay College of Criminal Justice, City University of New York. (Joined the full time faculty 1996)

Dual Appointments to the Doctoral Faculty at the Graduate School and University Center, CUNY, in Criminal Justice (Forensic Science) and Chemistry as an Associate Professor (2003- Present).

Assistant Professor - John Jay College of Criminal Justice, City University of New York. (2002 - 2003)

Instructor Science Dept. - John Jay College of Criminal Justice, City University of New York. (1996 - 2002)

Course Director of NIOSH 582 "Sampling and Evaluating Airborne Asbestos Dust" taught through NIOSH Cooperative Education Program at, Environmental and Occupational Health Sciences Institute (EOHSI) and TAKA Instructional Agency.

Course Director "Identification of Asbestos by Polarized Light Microscopy" taught through the Environmental and Occupational Health Sciences Institute (EOHSI) and TAKA Instructional Agency.

Lecturer in the EPA-AHERA accredited training programs for Asbestos Inspector and Management Planner at the Environmental and Occupational Health Sciences Institute (EOHSI).

Adjt. Asst. Prof., John Jay College of Criminal Justice, City University of New York (1983 - 1995)

Adjt. Assoc. Prof , St. John's University School of Pharmacy & Allied Health Professions (1980 - 1988)

Adjt. Assoc. Prof., C. W. Post College, Chemistry Department, Greenvale, New York (1980, 2009-2013)

Adjt. Asst. Prof., University of New Haven, Graduate Forensic Science Program, West Haven, Ct. (1981 - 1989)

## **University Courses Taught**

Analytical Spectroscopy a semester course for Ph.D. students taught at The Graduate Center CUNY

Chemical Separations a semester course for Ph.D. students taught at The Graduate Center CUNY

Instrumental Analysis two Semester Course of Study (Graduate and Undergraduate)

Advanced Microscopy for Forensic Scientists (Graduate)

Advanced Topics in the Analysis of Physical Evidence (Graduate)

Introduction to Statistics for Forensic Scientists

Scientific Evidence, Expert Testimony, Research Ethics, and the Law (Graduate)

Advanced Criminalistics (Instrumentation for Forensic Chemical Analysis) (Graduate)

Scanning Electron Microscopy and X-ray Micro-Analysis (Graduate)

Survey of Criminalistics for Criminal Justice Students

Introduction to Criminalistics

Crime Scene Investigation Techniques

## **Continuing Education Courses Taught**

"Forensic Glass Training Workshop" June 23 - 25, 2009, T.A.K.A. Instructional Agency Inc.

"Mathematical Concepts for Quality Data Production in a Forensic Chemical Laboratory" A three day class taught for the New York City Police Crime Laboratory T.A.K.A. Instructional Agency Inc., March and April 2009

"Basic Sampling and Statistical Analysis of Industrial Hygiene Data and Interpretation" taught for the New York City Department of Health and Mental Health, July 2008

"Review of Techniques and Practices for X-ray Spectrometry in a Forensic Laboratory" New York City Police Crime Laboratory T.A.K.A. Instructional Agency Inc., 2007

AAnalysis of Gun Shot Residue by SEM - EDS@ at the N. Y. C. Police Crime Laboratory 2005. "How to write a Quality SOP for Chemical or Physical Analysis" New York City Police Crime Laboratory

T.A.K.A. Instructional Agency Inc., 2004

"Asbestos Identification by Polarized Light Microscopy@ T.A.K.A. Instructional Agency (1990 to present)

AAnalysis of Airborne Asbestos by Analytical Electron Microscopy@ T.A.K.A. Instructional Agency (1990 to present)

Alntroduction to Forensic Scanning Electron Microscopy and Microprobe Analysis@ T.A.K.A. Instructional Agency (1998 to present)

Organizer of "Bloodstain Pattern Interpretation" NEAFS (Jan 1988)

Organizer and Staff Member - "Polarizing Light and Chemical Microscopy", sponsored by NEAFS, and St. John's University Graduate Pharmacy Department. (April 1985)

Staff Member, Asbestos Identification, taught in cooperation with The University of New Haven. (November, 1982 and March 1984)

Organizer of "Analytical Immunological Techniques" NEAFS, St. Johns University Graduate Pharmacy Department. (June 1984)

Staff Member, "Forensic Chromatographic Practices" St. John's University Graduate Pharmacy Department with SOFT and NEAFS. (Jan 1980)

Organizer of a one (1) week course "Introduction to Forensic Microscopy" NEAFS and St. John's University Graduate Pharmacy Department. (May 1980)

Moderator and Chief Organizer, "The Asbestos Health Hazard in Our Schools" Full Day Seminar, St. John's University Graduate Pharmacy Department and Allied Health Professions Continuing Education. (April 1985)

Lecturer, Forensic Investigation Seminar, New York Association of Independent Adjusters, Inc. Fall Meeting. (Oct 1983)

Staff Member and Organizer: Four-day intensive short course in "Forensic Infrared", NEAFS in conjunction with the Chemistry Faculty, C. W. Post College. (Aug 1977)

#### **Publications**

Kubic T. A., Petraco N., Miranda M., <u>Chemical Instrumental Analysis for Forensic Scientists: A</u>
Laboratory Manual, Kendall Hunt, Dubuque, IA (2012)

Leona M., Decuzzi P. Kubic T.A, Gates G., Lombardi J., "Nondestructive Identification of Natural and Synthetic Organic Colorants in Works of Art by Surface Enhanced Raman Scattering" Anal. Chem 2011 Jun 1;83(11):3990-3.

Rana, V., Canamares, M.V., Kubic, T., Leona, M., and Lombardi, J. "Surface Enhanced Raman Spectroscopy for Trace Identification of Controlled Substances: Morphine, Codeine, and Hydrocodone" J Forensic Sci 2010;

Kubic, T. A., and Petraco, N., Microanalysis and Examination of trace evidence, in <u>Principles of Forensic Science</u>, An Introduction to Scientific Investigative Techniques, 3 Ed. James, S. H., and Norby, J. J., CRC Press, Boca Raton, 2009, chap. 15.

Kubic, T. A., and Petraco, N., <u>Forensic Science - Laboratory Experiment Manual and Workbook,</u> 3<sup>rd</sup>. Ed. CRC Press, Boca Raton, 2009.

"Case studies in forensic soil examinations", Petraco, N., Kubic, T.A., and Petraco, N.D.K., Forensic Science International, 2008, 178, pp 23-27.

"Statistical Discrimination of Liquid Gasoline Samples from Casework", Petraco, D.K., Gill, M., Pizzola, P.A., and Kubic, T.A., J Forensic Sci 2008; 53(5): 1092-1101.

Kubic, T. A., and Petraco, N., <u>Forensic Science - Laboratory Manual and Workbook, Revised</u> Edition, CRC Press, Boca Raton, 2005.

Petraco, N., and Kubic, T. A., Color Atlas and Manual of Microscopy for Criminalists, Chemists, and

<u>Conservators.</u> CRC Press, Boca Raton, 2003. The American Library Association granted this title its Choice Award, Outstanding Academic Title for 2004, Life Sciences.

Kubic, T. A., and Petraco, N., <u>Forensic Science - Laboratory Experiment Manual and Workbook,</u> CRC Press, Boca Raton, 2002.

Kubic, T. A., and Petraco, N., Microanalysis and Examination of trace evidence, in <u>Principles of Forensic Science</u>, An Introduction to Scientific Investigative Techniques, James, S. H., and Norby, J. J., CRC Press, Boca Raton, 2002, chap. 15.

Kubic, T. A., Forensic applications of scanning electron microscopy with X-ray analysis, in <a href="Industrial Use of Electron Microscopy">Industrial Use of Electron Microscopy</a> Li, Z. R., Ed., Marcel Dekker Inc., New York, 2002, chap. 12.

AAsbestos Point-Counting Revisited B *Again* T. A. Kubic, <u>The Microscope</u>, Vol.49:1 49-53, (2001)

AA Density Gradient Technique for Use in Forensic Soil Analysis@ N. Petraco and T. A. Kubic, J Forensic Sci 2000; 45(4):860-861.

Letter to the Editor concerning the use of APlatinic Chloride@ as a name for a crystal testing reagent employing Platinum IV and Chloride ions. The Microscope, Vol.48, 50.

Authored a chapter on "Quality Assurance and Statistics in Forensic Science Laboratories" in <a href="The-use of Statistics">The Use of Statistics in Forensic Science</a> Editors C.G.G. Aitken and D.A. Stoney, Ellis Horward Ltd. Div of Simon & Schuster.

"Forensic Microanalysis by Fourier Transform Infrared Spectroscopy", J. C. Shearer, D. C. Peters, T. A. Kubic Trends in Analytical Chemistry, Vol. 4, N. 10, 1985.

"Instrumentation and Analytical Methodology in Forensic Science", R. E. Gaensslen, T. A. Kubic, Peter J. Desio, Henry C. Lee, <u>J. Chem. Ed.</u>, Vol. 62, p. 1058, Dec., 1985.

"Forensic Analyses of Colorless 'White' Textile Fibers by Fluorescence Microscopy and Microspectrofluorimetry", T. A. Kubic, J. E. King, I. S. DuBey - The Microscope, 4<sup>th</sup> Quarter 1983.

"Individualization of Automobile Engine Oils: Part II, Application of Variable Separation Synchronous Excitation Fluorescence to the Analyses of Used Automobile Engine Oils", T. A. Kubic and F. X. Sheehan, Journal of Forensic Sciences, Vol. 28, No. 2, pp 345-350, April 1983.

"Individualization of Automobile Engine Oils: Part I, The Introduction of Variable Separation Synchronous Excitation Fluorescence to Engine Oil Analyses", T.A. Kubic; C.M. Lasher; J. Dwyer, Journal of Forensic Sciences, Vol. 28, No. 1, pp 186-199, January 1983

"Determination of d or 1 Propoxyphene Using Microcrystal Tests and Infrared Spectroscopy", T. A. Kubic and L. Klobus, <u>Microscope</u>, 4<sup>th</sup> Quarter, 1981, p.161

"Deadly Tear Gas Conversion", C. Bruno, T. A. Kubic, et. al., NEAFS Newsletter, Vol. 3, #3

"Use of Pycnometer for Determining Glass Density Shown to be Limited", T. A. Kubic; H. Galgan; V. Gillis, Crime Laboratory Digest, Vol. 3, #3

"Improved TLC System for Separation and Identification of Cocaine, Benzocaine, Lidocaine, Procaine, and Heroin", T. A. Kubic; S. Wanlass, NEAFS Newsletter, Vol, 1, #2.

"Spectrofluorimetric Analyses of Illicit Drug Samples: Employing a Corrected Excitation Spectrofluorometer", ISA Transactions 14/3, p. 261

"Improved TLC System for Separation and Identification of Mixtures of Cocaine, Procaine, Lidocaine, and Benzocaine", Microgram, Vol. VIII, #1, Jan. 1975

## **Academic Awards**

The Arthur Niederhoffer Scholarship for significant contribution to the field of Criminal Justice. Awarded to Doctoral Students by the Graduate School City University of New York.

## Peer Recognition

Awarded the <u>Paul L. Kirk Award</u>, (1997) for service and contributions to Criminalistics by the Criminalistics= Section of the American Academy of Forensic Sciences.

Granted Honorary Life membership in the Northeastern Association of Forensic Scientists, in recognition of service to the Criminalistics Community.

Served on the Editorial Board of the Journal of Forensic Sciences. (1994 - 2004)

## **Program Appearances - Presentations**

"Forensic Microscopy "Forensic Microscopy IV: What is it? Who does it?" session chairman, arranger, Eastern Analytical Symposium, November 2012, Somerset, NJ.

"Forensic Microscopy V: What is it? Who does it?" session chairman, arranger, Eastern Analytical Symposium, November 17, 2011, Somerset, NJ.

"Forensic Microscopy IV: What is it? Who does it?" session chairman, arranger, Eastern Analytical Symposium, November 17, 2010, Somerset, NJ.

"Forensic Microscopy III: What is it? Who does it?" session chairman, arranger, and presenter "The Napoleon Cardenas Case, The Exoneration of the Wrongfully Convicted by Forensic Science" Eastern Analytical Symposium, November 19, 2009, Somerset, NJ.

"Examination of a 13 Year Old Crime Scene for a War Crimes Trial – OR – Is it Too Late to Examine a Crime Scene?" Kubic, T.A., Trace Evidence Symposium August 2-7, 2009 Clearwater, FL.

"Environmentally Friendly Forensics: The Characterization of Eco-Fibers" Purcell, D., Weinger, B., Sededat, K., Grandison, A., Kubic, T., and Reffner, J. Poster, Trace Evidence Symposium August 2-7, 2009 Clearwater, FL.

"A Novel Approach to the Examination of Soil Evidence: Mineral Identification Using Infrared Microprobe Analysis", Poster, Weinger, B., Reffner, J., DeForest, P., Kubic, T., Trace Evidence Symposium August 2-7, 2009 Clearwater, FL.

"Examination of a 13 Year Old Crime Scene for a War Crimes Trial – OR – Is it Too Late to Examine a Crime Scene?" Kubic, T.A. and Diaczuk, P., 61st Annual Meeting of the American Academy of Forensic Sciences, February 19, 2009, Denver, CO.

"Application of Raman Spectroscopy and SERS for the analysis of ballpoint ink dyes" Geiman, I., Lombardi, J., Leona, M., and Kubic, T., Poster, 61st Annual Meeting of the American Academy of Forensic Sciences, February 2009, Denver, CO

"The Future of Forensics" The Practitioners and Educators Point of View, Kubic, T.A. panel member Guggenheim Symposium on Crime in America, February 3, 2009, John Jay College of Criminal Justice, CUNY.

"Forensic Microscopy II: What is it? Who does it?" session chairman, and arranger. Eastern Analytical Symposium, November 20, 2008, Somerset, NJ.

"Role of the NIST, NVLAP Assessor" NIST Body Armor Laboratory Accreditation Workshop, October 29, 2007, Gaithersburg, MD.

"Transfer (Trace) Evidence: Incarcerations and Exonerations" 60<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, February 18, 2008, Washington, DC.

"Forensic Microscopy: What is it? Who does it?" session chairman, arranger, and presenter. Eastern Analytical Symposium, November 12-14, 2007, Somerset, NJ.

"The Laboratory Report: What's in it? What should be in it? One Man's Opinion" 2007 Trace Evidence Symposium, August 11-16, Clearwater, FL, sponsored by National Institute of Justice.

"Education and Research Perspectives: Needs and Opportunities in Trace Evidence Examinations" Discussant on panel, 2007 Trace Evidence Symposium, August 11-16, Clearwater, FL, sponsored by National Institute of Justice.

"Microscopy in Forensic Science" (Invited) New York Microscopical Society Ernest Abbe Award Symposium, Honoring Dr. John A. Reffner. 2004 Eastern Analytical Symposium, Somerset, NJ (November 2004)

"Dr. Walter McCrone His Contributions to Environmental Microscopy" (Invited) Symposium Honoring Dr.

Walter McCrone, T. A. Kubic, 55<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, Chicago. II. (February 2003).

"Estudio de micro-evidencias localizadas en la escena del crimin v aplicaciones forenses de la microscopia electrónica". T. A. Kubic, The Forth National and Second International Conference on Forensic Analysis, the Federal Department of Justice, Mexico, Mexico City. (May 2000)

"Evidence of Microscopical Size as an Aid in Establishing Association", T. A. Kubic, Philadelphia Society for Microscopy, Phil.., PA.

"Joys and Caveats in Employing High Pressure Scanning Electron Microscopy for Forensic Analysis", Thomas A. Kubic, MS, JD, 50<sup>th</sup> Anniversary Meeting of American Academy of Forensic Sciences (AAFS) (Feb 1998)

"The Discrimination of Window Glass Fragments by Energy Dispersive X-Ray Fluorescence Spectrometry@, JoAnn Buscaglia, MS, C.G.G. Aitken, PhD; K. Brown; P. DeForest, D.Crim; Thomas A. Kubic, MS, JD. 49<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences (AAFS) (Feb. 1997)

Statistical Concepts for Quality Assurance of Interest to the Criminalist in the Forensic Science Laboratory", Thomas A. Kubic, MS, JD, JoAnn Buscaglia, MS, 49<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences (AAFS) (Feb. 1997)

"Application of Photon and Electron Microprobe Analysis to Forensic Samples with Emphasis on the Use of Environmental Chamber SEM=s@, Thomas A. Kubic, NESEM Meeting (Oct. 1996)

"Total Reflection X-Ray Fluorescence Spectroscopy (EXTRA II-A)", Thomas A. Kubic, Inter/Micro-96 (July 1996)

"The Application of ECO-SEM to Forensic Samples", Thomas A. Kubic, Inter/Micro-96 (July 1996)

"Total Reflection X-ray Fluorescence Spectrometry (TXRF) - Further Application of Elemental Analyses to Samples of Interest to the Forensic and Regulatory Chemist", Thomas A. Kubic, JoAnn Buscaglia Eastern Analytical Symposium (EAS) (1996)

"The Application of High Pressure Scanning Electron Microscopy (ECO-SEM) to the Analyses of Forensic Samples", Thomas A. Kubic, JoAnn Buscaglia Eastern Analytical Symposium (EAS) (1996)

"Total-Reflection X-ray Fluorescence Spectrometry (TXRF)-Further Application to Elemental Profiles on Trace Evidence" Thomas A. Kubic, JoAnn Buscaglia, 48<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences (AAFS) (Feb. 1996)

"The Application of High Pressure Scanning Electron Microscopy (ECO-SEM) to the Analysis of Forensic Samples", Thomas A. Kubic, JoAnn Buscaglia, 48<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences (AAFS) (Feb. 1996)

"The Application of High Pressure Scanning Electron Microscopy (ECO-SEM) to the analysis of Forensic Samples", Thomas A. Kubic, JoAnn Buscaglia, 1995 Eastern Analytical Symposium (EAS) (Nov 1995)

"EXTRA-IIA - A new Instrument for the trace Elemental Determination of Samples of Interest to Forensic and Environmental Chemists", Thomas A. Kubic, JoAnn Buscaglia, Eastern Analytical Symposium (EAS) (Nov 1995)

"Total Reflection X-RAY Fluorescence Spectroscopy (TXRF) A New Sensitivity (PPT) Quantitative Method for Forensic And Environmental Samples", Thomas A. Kubic, Dr. Ulrich Reus, JoAnn Buscaglia, 22<sup>nd</sup> Federations of Analytical Chemistry & Spectroscopy Societies (FACSS XXII) (Oct 1995)

"EXTRA IIA - A New Instrument for Trace Elemental Characterization of Materials of Interest to Criminalists", T. A. Kubic; J. Buscaglia, M. Masalovic, P. DeForest; 47<sup>th</sup> Annual Meeting AAFS, Seattle, WA (Feb 1995)

"A Primer for Statistics in Forensic Drug Chemistry" New York State Police Crime Laboratories Seminar (April 1993)

<sup>&</sup>quot;Basic Concepts of Quality Assurance and Statistical Control for Forensic Laboratories", NEAFS Annual

Meeting 1993.

"A Further Study of the Alteration of Asbestos Characteristics by Heat" T.A. Kubic, J. Buscaglia, C. Lasher, "Inter Micro-1990".

"PLM's, SEM'S, and FT/IR's Anything to Convict the Guilty and Free the Innocent." T.A. Kubic, "Inter Micro-'86", July, 1986

"Fourier Transform Infrared Analysis in the Forensic Laboratory" and "Fluorescence Spectroscopy Applications in the Forensic Laboratory", T. A. Kubic. Invited Lecturer in Forensic science at the First Chinese American Police Conference, Taipei, Taiwan, R. of C., March, 1986.

"Forensic Application of the FT/IR Microscope", T. A. Kubic; J. E. King; S. Kovar, 38<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences, Feb., 1986.

"Scanning Electron, FT/IR, and Light Microscopy in Forensic Analysis of Paints and Fibers", T. A. Kubic; J. E. King; S. Kovar, 24<sup>th</sup> Annual Meeting Eastern Analytical Symposium (EAS) (Nov., 1985) "Application of the FT/IR Microscope to Forensic Analysis", T. A. Kubic; S. Kovar, 11th Annual Meeting Northeastern Association of Forensic Scientists, Oct., 1985.

"The Application of Micro sampling Techniques and Fourier Transform Infrared Spectroscopy to Forensic Analyses", T. A. Kubic; J. E. King; I. S. DuBey, 37<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences, February, 1985.

"The Comparative Discrimination Powers of Microphotometry and Microfluorimetry in the Microscopical Examination of Red Textile Fibers", T. A. Kubic; J. E. King; J. Mario, 37<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences, February, 1985

"The Application of Fourier Transform Infrared Spectroscopy to the Identification of Drug Substances Directly on Thin Layer Chromatographic Plates", J. H. Bidanset; T. A. Kubic, 37<sup>th</sup> Annual Meeting of the American Academy of Forensic Sciences (AAFS) (Feb 1985)

"Application of the Light Microscope to Forensic Problems", I. S. DuBey; T. A. Kubic, Eastern Analytical Symposium (EAS) (Nov. 1984)

"The Personal Computer in conjunction with the Light Microscope for the Evaluation of Microscopical Evidence", T. A. Kubic, 10<sup>th</sup> Annual Meeting NEAFS, October 1984.

"The Personal Computer in Conjunction with the Light Microscope for the Evaluation of Microscopical Evidence", T. A. Kubic; J. E. King, Meeting of the International Association of Forensic Sciences, Oxford, U. K., September 1984.

"Forensic Evaluation of Petroleum Based Lubricants", T. A. Kubic; C. Lasher, International Association of Forensic Sciences, Oxford U.K. September 1984.

"The Forensic Scientist, Police and the Courts: A Failure to Communicate", J. Bashinski; T. A. Kubic; I. S. DuBey, International Association of Forensic Sciences, Oxford, U.K., September 1984.

"Fourier Transform Infrared Spectroscopy: A Moderate Cost Powerful Tool for Solving Old Problems", T. A. Kubic, International Symposium on the Analyses and Identification of Polymers, F. B. I. Academy, Quantico, VA, July 1984.

"Mix and Match - A comparison microscope from a Number of Manufacturer's Parts". T. A. Kubic, Inter-Micro '84, Chicago, IL, July 1984.

"Application of the Personal Computer Interfaced with the Light Microscope to Forensic Analyses", T. A. Kubic, Eastern Analytical Symposium (EAS) (Nov 1983)

"The Fluorescence Microscope and Microspectrofluorometer Applied to the Further Characterization of Fiber Samples", T. A. Kubic; J. E. King; and I. S. DuBey, 35<sup>th</sup> Annual Meeting of American Academy of Forensic Sciences, Cincinnati, OH, 1983

Moderator and Presenter: "Communication of the Courtroom", Joint Criminalistics and Jurisprudence Session, 35<sup>th</sup> Annual Meeting of American Academy of Forensic sciences, Cincinnati, OH, 1983

Presenter and Panel Member: "Forensic Paint Analysis, The State of the Art", First Inter-American Congress of Forensic Sciences, Sacramento, CA, 1982.

"Forensic Analysis of Colorless 'White' Textile Fibers by Microspectrofluorimetry", T. A. Kubic; J. E. King; I. S. DuBey, Inter Micro '32, Chicago, IL.

"Identification of Micro Samples of Blood by Fluorescence Microscopy Coupled with the Micro-Spectrofluorometer", T. A. Kubic; I. S. DuBey, Inter Micro '82, Chicago, IL.

"The Employment of Light and Electron Microscopy to Forensic Samples at a Municipal Crime Laboratory in the United States", T. A. Kubic, Inter Micro 1981, Cambridge University, England

"The Characterization of Automobile Engine Lubricants", T. A. Kubic; C. Lasher; F. Sheehan; J. O'Connor, 33rd Annual Meeting of American Academy of Forensic Sciences, February 1981

"Use of Microscopy as an Aid in Solving Crimes", T. A. Kubic, Inter Micro, 1980, Chicago, IL

Chairman and Presenter: workshop on "Fluorometric Methods in Forensic Analysis", 6<sup>th</sup> Meeting of NEAFS, October 1980

"Identification of Inorganic oxidizing Agents in Pre/Post Explosion residues by Infrared Spectroscopy", T. A. Kubic; I. S. DuBey, 29<sup>th</sup> Meeting of American Academy of Forensic Sciences

# **Educational Background Specialized Training-Short Courses**

Invited Participant AGunshot Primer Residue Symposium@ U.S. Department of Justice, FBI Laboratory Division, Quantico VA., May 31 - June 3, 2005.

Received a full tuition grant and completed a one week intensive training course APratical X-ray Fluorescence Spectrometry@ by The International Centre for Diffraction Data, Newtown Square, PA (May 2005)

Received a full tuition grant and completed a one week intensive training course AAdvanced Methods in XRD@ by The International Centre for Diffraction Data, Newtown Square, PA (June

2004)

Attended and completed a two (2) day training course ANVLAP Assessor Training Symposium@ dealing with the proper manner of conducting an on-site laboratory assessment. Taught by NVLAP a division of the National Institute of Standards and Technology. (April 30- May 1, 2001)

Computer classes titled AWindows Overview@, AIntroduction to EXCEL@, and AIntroduction to Power Point@ by T. A. Wilson Technological Center, Dix Hills, NY. (Spring 2001)

Attended Forensic Scanning Electron Microscopy Course Sponsored by Scanning 98 in Baltimore, MD.(May 1998

Attended Basic and Advanced Scanning Electron Microscopy Courses at Leigh University. One week each in length. (June 1997)

Completed a two (2) day Training Course in Micro-Infrared Spectrophotometry by Spectra-Tech, Inc. (Dec. 1993).

Completed three (3) Graduate Level Courses nine semester hours of Forensic Geology, Geology Petrology, and Mineralogy within the Geology and Environmental Science Dept of City University of New York. (1989-1991)

Completed Graduate Level Course at the City University of New York in "X-Ray Diffraction of Minerals and Materials". (1990)

Completed a two day intensive lecture and laboratory course on Analytical Electron Microscopy (AEM) including the topics, Transmission Electron Microscopy (TEM) operating, imaging and alignment; Selected Area Electron Diffraction (SAED) operation and interpretation of patterns; and Energy Dispersive X-Ray Analysis (EDS) for fine particles, theory and applications taught by Thomas A. Emma of ATEM Instruction. (Nov. 1989)

Completed a four (4) day course taught by and at NIOSH in Cincinnati "Statistical Analysis for Industrial Hygiene Sampling and Decision Making" 3.1 CEU, 3.0 ABIH CM's (NIOSH 553) (Oct. 1989)

Completed a one (1) week course in "Crystal Morphology and Optics" given by McCrone Research Institute. (Aug 1989)

Completed a two (2) day course on TEM practice for "Identification of Asbestos" taught by R. J. Lee Group of Monroeville, Pa. (April 1988)

Completed a full semester graduate level course at City University of New York in the application and theory of Transmission and Scanning Electron Microscopy taught by Drs. Ronald Gordon of Mt. Sinai Medical College and John Reffner of John Jay College. (February, 1986)

Completed a full semester graduate level course at City University of New York pertaining to advanced techniques in light microscopy. (September, 1986)

Attendee at ASTM's Johnson College Conference on Asbestos in Air Monitoring. (July, 1986)

Completed a one week course on X-Ray Powder Diffraction at the SUNY Albany's X-Ray Clinic. (June, 1986)

Completed a two (2) day tutorial in Energy Dispersive and Wavelength Dispersive X-ray Microbeam Analysis at the 1985 combined EMSA - MAS meeting, Louisville, Ky. (August 1985)

Invited attendee International Symposium on Forensic Hair Examination, F.B.I. Academy, Quantico, Va. (June 1985)

Attendee at NEAFS Perkin Elmer "Forensic Drug Analysis by HPLC". (Oct. 1985)

Completed a one week training course with examination "Supervision of Asbestos Abatement Contracts" taught by the Georgia Institute of Technology. (January, 1985)

Completed a one week course covering the Microscopic Identification and Individualization of Fibers in Forensic Analysis - McCrone Research Institute, Chicago, III. (July 1982)

Completed a three day intensive course in Maintenance and Operation of an AMRAY Scanning Electron Microscope at AMRAY Corporation, Bedford, Mass. (Oct 1981)

Completed a one week course in "Theory and Application of the Scanning Electron Microscope to the Identification of Small Particles" - McCrone Research Institute, Chicago, III. (Aug 1981)

Completed a one week course, "Fusion Methods in Microscopy" - McCrone Research Institute, Chicago, III. (Nov 1980)

Completed a one week course, "Scanning Electron Microscopy" (particular emphasis on "Energy Dispersive X-ray Analysis and Gunshot Residue") McCrone Research Institute, Chicago, III. (May 1979)

Completed a one week intensive course, "Identification of Soils, Minerals, and Particulates" - McCrone Research Institute, Chicago, III. (April 1979)

Completed a two (2) 20-hour courses in "Arson Investigation" by - New York City Fire Marshals Office (1986).

Completed a two week laboratory training program in Toxicology - Nassau County Medical Examiner's Toxicology Lab. (July 1976)

Attendee of NEAFS and McCrone Research Institute of a "Advanced Forensic Microscopy" (Aug 1978)

Completed a Short Course, "Infrared Spectroscopy Techniques" taught by Beckman Instruments. (March 1974)

Attendee of a "Bloodstain Workshop" NEAFS. (March 1979)

Completed a one week training course, "Instrumental Analyses" (dealing with paints, explosives, plastics) - F.B.I. Academy, Quantico, Va. (Nov 1976)

Completed a one week training course, "Forensic Aspects of Glass" taught by the F.B.I Academy, Quantico, Va. (July 1975)

Completed a one week training course in "Microscopy and Photomicrography" NEAFS and University of Connecticut, Storrs, Conn. (Aug. 1976)

Completed a three day intensive training program - Bureau of Alcohol, Tobacco and Firearms (BATF), Treasury Dept. "Analysis of Explosives and Bomb Residues", Philadelphia, Pa. (April 1975)

Completed a one week intensive training seminar on Drug Isolation and Identification - sponsored by Drug Enforcement Administration (DEA), McClean, Va. (Jan. 1974)

Completed an American Chemical Society's intensified short courses in Gas Chromatography, Thermo-analytical Analysis and Electronics for Instrumentation

## Membership in Professional Societies

Member of the Executive Board (1985-88) and "Fellow" of American Academy of Forensic Sciences; Former Secretary of Criminalistics= Section

Past President of Northeastern Association of Forensic Scientists (NEAFS)

Member - Council of Forensic Educators - Forensic Science Foundation (FSF)

Associate Member International Association for Identification@.

Member of the American Society of Trace Evidence Examiners

Past Member of the "International Association of Arson Investigators" (IAAI)

Past Member of Board of Governors, New York Microscopical Society.

Member of American Chemical Society (ACS)

Member of Microbeam Analysis Society (MAS)

Member of Microscopy Society of America (MSA)

Member of American Society of Testing Materials

Past Member of Environmental Information Association, (EIA) (formerly National Asbestos Council).

## **Certifications and Licenses**

Currently a Diplomate of the American Board of Criminalistics.

Attained "Fellow" status as a Certified Criminalist in the specialty area of Fire Debris Analysis.

Attained "Diplomate" status as a Certified Criminalist by the American Board of Criminalistics (ABC).

Attained a "Certificate of Profession Competence" in Criminalistics by meeting the requirements of the California Association of Criminalists in experience, training, and successful completion of a written examination.

Licensed to practice Law in New York State, admitted 2<sup>nd</sup> Department, March 1980

Previously licensed by State of New York - Department of Labor for Sampling Technician, Inspector, Management Planner, Supervisor, and Project Monitor. (License #88-10877)

Previously certified by New York State Department of Health to perform Alcohol in Blood Determinations

## Miscellaneous Credentials

Former Member and Chairman of the Science Department=s faculty committee of Equipment and Instrumentation. This committee evaluates requests for teaching instrumentation and equipment from department members and decides how budgeted funds are to be allotted. (to 2008)

Member of the Graduate Center=s Faculty Graduate Council (2004 - Present)

Member of the University Faculty Senate (2004 - Present)

Member of John Jay College faculty Standard=s Committee ( 2001 - 2006)

Member of the Science Department=s faculty grade appeals committee (2000 - 2009)

Consultant to the American Board of Criminalistics (ABC) a group of professionals who have implemented a national certification program for criminalists and Forensic Scientists.

Technical Expert performing on site laboratory assessments for NIST's laboratory accreditation programs for bulk asbestos and TEM analysis of airborne asbestos, as well as the accreditation of laboratories conducting the testing of body armor for certification by NIJ for use by law enforcement and correction personnel. I am a credentialed inspector qualified to perform laboratory assessments under the ISO 17025 standard for the above programs.

Member - Technical Working Group on Materials (SWGMAT) - Glass and Hair Sub Groups Sponsored by FBI, Quantico, VA (2004 - 2011)

Guest Reviewer of Grant Proposals for the National Science Foundation. (Occasional)

Committee Member of "Criminalistics Certification Study Committee" A LEAA funded National Committee studying the possibility of Certification of Crime Laboratory Personnel.

Committee Member of "Methods Advisory Committee", a Forensic Sciences Foundation sponsored National Committee to study the establishment of standard methods of analysis for crime laboratories.

Member of Committee of Criminalists and Microscopists Studying the Evidential and Scientific Value of "Human Hair Evidence", formed July 1982 and superseded by SWGMAT.

## **Consultations** (Present and Past)

New York City Police Crime Laboratory, Jamaica, New York Connecticut State Police Crime Lab, Meriden, Connecticut; Oakland Police Department Crime Lab, Oakland, California; AMRAY Corporation, Bedford, Massachusetts.

American Broadcasting Company News <u>Good Morning America Show=s</u> consultant on forensic science issues.

# **Previous Employment**

Twenty-Three (23) years as a criminalist and detective with a New York State municipal crime laboratory.

Seven (7) years as Analytical Chemist-Technician at: Leesona Moos Labs, Photo Circuits, Quantichrome Corp., and Germaine Monteil.

February 2013