

# Curriculum Vita

## Brooke Anne Weinger

124 West 60<sup>th</sup> Street Apt 32H, New York, New York 10023

Phone: (917) 414-3232

Email: [bweinger@yahoo.com](mailto:bweinger@yahoo.com) or [brooke.weinger@jjay.cuny.edu](mailto:brooke.weinger@jjay.cuny.edu)

### Education

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|---|--------------|--------------|
| <b>CUNY Graduate Center</b>   | 2007-present | New York, NY |
| Ph.D. in Criminal Justice, Forensic Science Specialization in Progress  |              |              |
| <ul style="list-style-type: none"><li>• Courses include Analytical Spectroscopy, Advanced Physical Evidence, Survey of Legal and Philosophical Issues in Criminal Justice, Survey of Criminal Justice Policy and Practice, and Punishment and Responsibility.</li><li>• Level 1 Ph.D. student, 10 credits completed.</li><li>• Cumulative GPA of 4.0.</li></ul>   |              |              |
| <b>John Jay College of Criminal Justice</b>   | 2005-2007    | New York, NY |
| Masters of Science in Forensic Science  |              |              |
| <ul style="list-style-type: none"><li>• Courses included Advanced Criminalistics I &amp; II, Advanced Instrumental Analysis I &amp; II, Crime Scene Reconstruction, Forensic Pharmacology, Forensic Toxicology, Scientific Firearms and Toolmark Examination, Expert Testimony and Ethical Issues for Scientific Research and Forensic Scientists, and Fieldwork in Forensic Science.</li><li>• Mastered techniques in GC, FT-IR, UV-vis, HPLC, PLM, TLC, Blood Analysis, Basic Scientific Photography, and Crystal and Color Tests for Qualitative Analysis.</li><li>• Dean's List Recipient with a Cumulative GPA of 3.8.</li></ul>   |              |              |
| <b>New York University</b>  | 2002-2003    | New York, NY |
| Masters of Arts in Chemistry Education from the Steinhardt School of Education  |              |              |
| <ul style="list-style-type: none"><li>• Completed independent study on the importance of chemical demonstrations in Chemistry classes.</li><li>• Cumulative GPA of 4.0.</li></ul>   |              |              |
| <b>Northwestern University</b>  | 1996-2000    | Evanston, IL |
| Bachelor of Arts in Chemistry   |              |              |
| <ul style="list-style-type: none"><li>• In addition, received a certification in the secondary teaching of Chemistry, an add on secondary endorsement in Physics and general science, and an add on middle school endorsement, grades 6-8, in general and physical science.</li><li>• Courses included Accelerated Inorganic Chemistry, Accelerated Physical Chemistry, three trimesters of General Physics, three trimesters of Organic Chemistry, Organic Synthesis Laboratory, Inorganic Chemistry, Thermodynamics, Analytical Chemistry, Quantum Mechanics/Spectroscopy, Spectroscopy Laboratory, Kinetics/Statistical Thermodynamics, Inorganic Synthesis Laboratory, and Advanced Laboratory.</li><li>• Chemical analysis instrumentation and techniques studied included TLC, UV-vis, IR, FT-IR, Raman, GC/MS, MS/MS, HPLC, SEC, NMR, ICP, and N<sub>2</sub> Dye Laser.</li><li>• Cumulative GPA of 3.5.</li><li>• Dean's List for three quarters.</li></ul> |              |              |

## Experience

**Thomas A. Kubic & Associates (TAKA)** 2007-present Northport, NY

- Work on a case-by-case basis under the leadership of Dr. Thomas A. Kubic, gaining experience in forensic casework.

**Forensic Consultants** 2006-present Ardsley, NY

- Work part-time on a variety of cases under the leadership of Dr. Peter De Forest. Responsibilities have included the making of crime scene models, evidence documentation and analysis, and reconstruction experiments.

**John Jay College of Criminal Justice** 2006-present New York, NY

- Adjunct Lecturer of General Chemistry and Natural Science.
- Advanced Criminalistics Laboratory Technician.

**Smiths Detection** 2006-present Danbury, CT

- Forensic science intern under Dr. John Reffner.
- Used infrared microspectroscopy to investigate clay minerals for forensic soil analysis. Created an ATR library of infrared spectra of minerals.

**York Preparatory School** 2000 - 2006 New York, NY

- Science teacher for 11<sup>th</sup> Grade Chemistry and Chemistry Honors, 9<sup>th</sup> Grade Physical Science, 12<sup>th</sup> Grade Physics, 12<sup>th</sup> Grade elective “20<sup>th</sup> Century Science”, and 8<sup>th</sup> Grade Earth Science.
- Created and designed the curriculum for a senior science class entitled “20<sup>th</sup> Century Science”, with a quarter devoted to the Forensic Sciences. Other topics included Genetics, Pharmacology, Nanotechnology, Space, and the Atom.
- Scholars Program teacher of Organic Chemistry, Introduction to Nanotechnology, and the History of Science.
- Responsible for the chemical stock room, which includes ordering and maintaining chemicals.
- Originated, organized, and performed two chemistry demonstration shows each year, one in honor of Mole Day (October 23<sup>rd</sup>) for the high school, and one in the spring for the lower school, both with the goal of stimulating interest in Chemistry. In these shows, students are taught to perform and explain the science of various chemistry demonstrations.
- Worked with students with a wide range of abilities, from honors students to those who are visually and hearing impaired, with ADHD and other learning disabilities.

**Undergraduate Chemistry Council** 1998-2000 Evanston, IL

- Organized lectures, discussed current topics in Chemistry, and planned events for the Northwestern Community.
- Chairperson of the Science Outreach Program for Education (SCOPE), an organization whose goal is to kindle interest in the sciences for underprivileged students by conducting demonstrations and discussions of chemistry experiments. Authored SCOPE demonstration book that is currently in use.
- Student Affiliate Member of American Chemical Society (ACS) and Alpha Chi Sigma (AXE) the professional Chemistry fraternity.

## Publications

### Scientific Presentations

- Lecture: “Shining A New Light on Mineral Analysis,” Co-Authored by Dr. John A Reffner, Dr. Peter R. De Forest, and Pauline Leary, Eastern Analytical Symposium, Somerset, New Jersey, November 14, 2007.

- Lecture: “Rapid, Reliable and Reviewable Mineral Identification with Infrared Microprobe Analysis,” Co-Authored by Dr. John A. Reffner and Dr. Peter R. De Forest, The 2nd International Soil Forensics Conference, Edinburgh, Scotland, November 1, 2007.
- Lecture: “A Novel Approach to the Examination of Soil Evidence: Mineral Identification Using Infrared Microprobe Analysis,” Co-Authored by Dr. John A. Reffner and Dr. Peter R. De Forest, American Academy of Forensic Scientists, 59<sup>th</sup> Annual Scientific Meeting, San Antonio, Texas, February 22, 2007.
- Lecture: “Mineral Identification Using Infrared Microprobe Analysis with Diamond Attenuated Total Reflection,” Co-Authored by Dr. John A. Reffner and Dr. Peter R. De Forest, Smiths Microprobe Workshop, Pine Brook, New Jersey, November 17, 2006.
- Lecture: “The Application of Infrared Microprobe Analysis to Mineral Identification,” Co-Authored by Dr. John A. Reffner and Dr. Peter R. De Forest, Northeastern Association of Forensic Scientists, 32<sup>nd</sup> Annual Meeting, Rye Brook, New York, November 2<sup>nd</sup> and 3<sup>rd</sup>, 2006.
  - Winner of the 2006 Collegiate Project Competition.
- Lecture: “Mineral Identification Using Infrared Microprobe Analysis with Diamond Attenuated Total Reflection,” Co-Authored by Dr. John A. Reffner and Dr. Peter R. De Forest, California Association of Criminalists, 2006 Fall Seminar, Temecula, California, October 12, 2006.
- Poster: “The Increased Role of the Infrared Microprobe in Trace Analysis,” Co-Authored by Dr. John A. Reffner and Pauline Leary, Midwestern Association of Forensic Scientists, Fall Meeting 2006, Indianapolis, Indiana, October 9-13, 2006.
- Poster: “The Increased Role of the Infrared Microprobe in Trace Analysis,” Co-Authored by Dr. John A. Reffner and Pauline Leary, American Society of Crime Laboratory Directors, 2006 Annual Workshop and Symposium, San Francisco, California, October 1-5, 2006.

#### Other Professional Activities

- Professional Member of AAAS, NYAS, and AXE.
- Affiliate of AAFS, NEAFS, ABC and NYMS.
- Attended AAFS Annual Meeting 2006, 2007, 2008
  - “The Nose Knows” Workshop 2006
  - “Documentation, Collection, and Examination of Fabric Impressions” Workshop 2008
- Attended EAS Convention 2006 and 2007
  - “Chemometrics without Equations” Workshop 2007
- Attended the 2<sup>nd</sup> International Soil Forensics Conference 2007
- Attended NEAFS Annual Meeting 2006
- Attended CAC Fall Seminar 2006
  - Adv. in Forensic Paint Examinations Workshop taught by Scott Ryland
  - Forensic Soils Examinations Workshop taught by Dr. Raymond Murray, Skip Palenik, Dr. Christopher Palenik, Dr. George Sensabaugh, Dr. Robert Graham, Dr. Lynn Macdonald, and Marianne Stam.
- Attended NYMS Annual Microscope Day 2006 and 2007
- Completed NYMS “Use of the Microscope” Workshop Fall 2005