

**Nancy L. Engle**  
8325 Brightmoor Court  
Knoxville, TN 37923

### **Experience**

2005-current **Plant Biochemistry Technician Oak Ridge National Laboratory**

- Responsible for the synthesis of non-commercially available metabolites found in plants

- GC/MS analysis of plant extracts and data analysis

#### **Contract Chemist for Chemical Separations Group at ORNL**

1999, 2001-2004 American Technologies, Inc., Oak Ridge, TN

1998–1999 Kelly Scientific, Oak Ridge, TN

- Performed organic synthesis, separations, purification, and analyzation and characterization of novel organic compounds. Techniques utilized include column chromatography, liquid-liquid extraction, crystallization, distillation, preparative TLC, GC, NMR, and ICP
- Responsible for routine maintenance and troubleshooting for Hewlett Packard HP6850 series GC
- Maintained laboratory notebook detailing reaction conditions, experimental procedures, and results. Prepared synthetic write-ups for publication in scientific journals and prepared and presented work results during group meetings.
- Maintained and performed annual physical inventory of chemicals.

#### **General and Organic Chemistry Laboratory / Stockroom Assistant**

1994-1996 Rollins College, Winter Park, FL

- Supervised and assisted 20-30 undergraduate chemistry students during laboratory periods. Prepared all necessary solutions and obtained compounds and equipment needed for completion of assigned lab work.
- Graded student lab notebooks.

#### **Independent Senior Research**

1995-1996 Rollins College, Winter Park, FL

- Researched and developed the protocol necessary for the isolation, purification, and identification of the iron siderophores produced by the biocontrol soil fungus *Trichoderma viride* ATCC 52440

#### **National Science Foundation Undergraduate Research Fellow**

Summer 1995 University Of Tennessee Chemistry Dept., Knoxville, TN

- Assisted in the research and development of the temperature dependence of the endo/exo product ratios of Lewis Acid catalyzed Diels-Alder reaction.
- Determined the reaction product ratios using a GC/MS.

**Skills and Training**

- Skilled with use of GC, GC/MS and NMR instruments.
- Familiar with the operation of IR, UV-VIS, and ICP
- Experience with both Macintosh and PC operating systems and software
- Able to learn new instrumentation and software applications quickly
- Over 28 hours additional job specific training including RCRA hazardous waste characterization, RCRA land disposal restrictions, RCRA satellite accumulation areas, and access to radiological controlled areas

**Education**

- B.A. Chemistry, Cum Laude, Honors in the Major 1996  
Rollins College, Winter Park, FL (GPA 3.62/4.00)  
American Chemical Society Certified Professional Training
- A.A. Honors Degree 1994  
Valencia Community College, Orlando, FL (GPA 4.00/4.00)

**Awards / Affiliations**

- American Chemical Society Undergraduate Award in Analytical Chemistry
- American Institute of Chemists Outstanding Senior Award
- Member of the American Chemical Society

## References

Fred Sloop  
Chemical Sciences Division  
Bldg. 4500S MS-6119  
P.O. Box 2008  
Oak Ridge National Laboratory  
Oak Ridge, TN 37831-6119  
865-574-6716

Peter Bonnesen  
Chemical Sciences Division  
Bldg. 4500S MS-6119  
P.O. Box 2008  
Oak Ridge National Laboratory  
Oak Ridge, TN 37831-6119  
865-574-6715

Bruce Moyer  
Chemical Sciences Division  
Bldg. 4500S MS-6119  
P.O. Box 2008  
Oak Ridge National Laboratory  
Oak Ridge, TN 37831-6119  
865-574-6718