

## CHEMISTRY RÉSUMÉS

1. There is no absolute right format. This is your personal work, so create a resume that represents you well and that you like. However, be sure that you follow basic guidelines:
  - A. Make sure your resume says the most about you in the fewest number of words (one page is recommended for Bachelor's level students, 2 pages for graduate students...but there are some exceptions, e.g. more than ten years of employment experience).
  - B. Be consistent with your format! Margins, bolding, capitalization, and style must be consistent as well as order and style of information.
  - C. Proofread for typing and spelling accuracy.
2. Only items leading directly to setting up an interview should be included. Keep your resume specific to the job you are applying for, even if that means having different resumes for different jobs. (E.g. one resume for research-related positions and another for sales positions.) Salary requirements, supervisor's names, abbreviations, clichés, reasons for leaving jobs, personal opinions and personal information such as height, weight, age, marital status, etc. should be excluded.
  - A. Required Categories: (Heading) Name, Address, Phone Number (Note: Be sure your phone number is prominent. Employers who cannot find--or read--your telephone number will not call!), Email Address; (Body) Education, Experience (Work and/or Activities).
  - B. Optional Categories: (Body) Objective, Relevant Coursework, Honors & Awards, Activities, Credentials, Skills, Computer Skills, Publications or Presentations, Professional Affiliations, and Other.
3. If you do include an objective, be sure that it shows your career goals. It must be narrow and specific and include your strengths as they apply to the position. (E.g. To obtain a position as a Chemical Engineer at a growing company where I can use my research abilities and excellent communication skills to create advanced products in a team setting.)
4. Both the resume and cover letter should be examples of your best work! Maintain a positive tone by excluding negative aspects of your experience.
5. Choose a conservative font such as Helvetica, Times, Courier, Geneva, New York, Palatino, or a sans serif font no smaller than 10 and no larger than 14. Include as much "white space" as possible for easier scanning by the employer.
6. Make your resume look professional. If you make a hard copy, use only a laser printer on good quality bond paper. Use white, off white, or a light blue or gray, 8-1/2" X 11" bond paper. (Remember that your potential employer may photocopy your resume, so be sure that the paper is not too dark or "blotchy" to photocopy well!).
7. Be specific with dates, job titles, employers, interests, and accomplishments. Be complete and descriptive without being too long. Always be completely accurate and truthful!
8. Use what is called telegraphic style. Omit all personal pronouns (I, we, they, you, etc.) Use incomplete sentences in list form (no paragraphs!) without punctuation.
9. Use results oriented, "action verbs" in describing your experience. Words such as administered, coordinated, developed, created, implemented, managed, and prepared are keys in telling employers what you have accomplished. Use past tense unless you are describing a job you are currently doing (in which case present tense or past tense is acceptable). Career Services has additional recommendations for action verbs.
10. Do not staple, paper clip, fold, or put your resume in a folder. Use the larger 9" X 12" envelopes to mail and be sure watermarks, if your paper has them, are right-side up.

For more information or assistance with a résumé or other job search question, please contact us at:  
School of Chemical Sciences Career Counseling & Placement Services  
105 Noyes Laboratory  
217-333-1050 • [plblum@illinois.edu](mailto:plblum@illinois.edu) • <http://careers.scs.illinois.edu/>

## EXAMPLE 1: Entry-Level BS Chemist

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### JOHN T. LEIBOWITZ

Present: 2334 S. Austin Rd, Apt. B, Champaign, IL 30301

217-555-1212 (home) 217-555-1212 (cell)

Permanent: 1835 Eisenhower Circle, Appleton, WI 12360

322-112-4928 johnl@gmail.com

#### EDUCATION

BS, Chemistry, with Honors; minor concentration: Russian  
University of Illinois, Urbana-Champaign, IL, Expected 2014

- Honors thesis: "Synthesis of bis-dipyridyl complexes of divalent transition metals"
- Advisor: Professor Nina R. Young
- GPA 3.55/4.00

#### EXPERIENCE

Research Assistant, Professor Nina R. Young  
University of Illinois, Urbana-Champaign, IL, 2012-Present

- Synthesized organic ligands and inorganic compounds, on large and small scales, using anaerobic techniques
- Produced complexes of divalent first-row transition metals; studied their interaction with dioxygen
- Characterized products with  $^1\text{H}$  NMR, UV-vis, and IR spectroscopy as well as X-ray crystallography and magnetic susceptibility

Teaching Assistant, Undergraduate Inorganic Chemistry  
University of Illinois, Urbana-Champaign, IL, Fall 2012

- Planned and led help sessions and recitations
- Coordinated materials, conducted lab sessions, and graded lab reports

#### COMPUTER EXPERIENCE

- Navigate Mac OS, DOS, MS Windows, X windows, and UNIX
- Proficient in MathCAD, Excel, MS Word, AmiProd, MS PowerPoint
- Acquainted with Cambridge Structural Database and Inorganic Crystal Structure Database
- Able to learn new software quickly

#### COURSEWORK

- Completed, in addition to required courses, graduate-level biochemistry (4 hours), instrumental analysis (2 hours), bioanalysis lab (2 hours), and computational chemistry lab (2 hours)
- Attended workshop/conference on bioinorganic chemistry

#### AWARDS

- Dean's List, Fall 2010-January 2014
- Grant recipient from the General Electric Foundation, Summer 2011

#### ACTIVITIES

- Private music tutor (cello), 2010-Present
- Member, Alpha Delta Chi honor society, 2010-present
- Intern, Urbana Food Bank, Fall 2011

## **JOHN T. LEIBOWITZ**

2334 S. Austin Rd, Apt. B

Atlanta GA 30301

217-555-1212 (home) 217-555-1212 (cell) johnl@gmail.com

### **REFERENCES**

Professor Nina R. Young, Department of Chemistry  
University of Illinois at Urbana-Champaign  
112 Gorder Drive, Box 6-788  
Urbana, IL 61801  
217-555-1212  
n.young@emory.edu

Professor Rodney Tree, Department of Chemistry  
University of Illinois at Urbana-Champaign  
900 Gorder Drive, Box 8-200  
Urbana, IL 61801  
217-555-1212  
r.tree@emory.edu

Professor James Orney, Department of Mathematics  
University of Illinois at Urbana-Champaign  
122 Simpson Avenue, Box 7-407  
Champaign, IL 61820  
217-555-1212  
j.orney@emory.edu

## **EXAMPLE 2: Entry-Level PhD Chemist**

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### **ERNSTINE QUIGLEY**

123 Gorder Drive  
Iowa City IA 52240  
319-555-1212  
equigley@uiuc.edu

#### **OBJECTIVE**

- To utilize my experience in spectroscopic investigations in heterogeneous systems in a research and development position in an industrial setting

#### **HIGHLIGHTS**

- Extensive experience in the investigation of photochemical reactions
- Modeling of the kinetics of heterogeneous reactions
- Industrial experience (summer intern program)

#### **EDUCATION**

PhD, Physical Chemistry, University of Illinois, Urbana-Champaign, IL  
Anticipated December 2014

- Thesis title: "Photochemical Studies of Heterogeneous Reactions in the Atmosphere"
- Advisor: Professor Anton Bruckner

BS, Chemistry (summa cum laude), Central College, Pella IA  
May 2009

- GPA 3.60/4.00
- Thesis title: "Computer simulation of ozone reactions"
- Advisor: Professor J. P. Morgan

#### **RESEARCH EXPERIENCE**

Graduate Assistant, University of Illinois, Urbana-Champaign, IL  
2009-present

- Advisor: Professor Anton Bruckner
- Developed a new, highly sensitive technique for the measurement of photochemical reactions on heterogeneous surfaces
- Modeled the kinetics of heterogeneous photochemical atmospheric reactions
- Gained experience in all types of optical investigations of photochemical processes
- Led Advanced Physical Chemistry and Advanced Kinetics laboratories

Summer Intern, Exxon Research and Development, Houston TX  
Summer 2009

- Supervisor: Dr. Chuck Johnson
- Studied gas-phase reactions on various heterogeneous catalysts of industrial importance using spectroscopy

# ERNSTINE QUIGLEY

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## RESEARCH EXPERIENCE CONTINUED

Summer Intern, University of Illinois at Urbana-Champaign

Summer 2008

- Assisted in the laboratory of Professor Ivan P. Oakes
- Studied chlorofluorocarbons reacting with water droplets using spectroscopy

Undergraduate Research Assistant, Central College, Pella IA

2007-2008

- Advisor: Professor J. P. Morgan
- Studied reactions of ozone both experimentally and theoretically
- Used computer modeling

## AFFILIATIONS

- American Chemical Society, 2011-present
- Optical Society of America, 2009-present

## PUBLICATIONS

- **Quigley, E.**; Morgan, J. P. "Computer simulation of ozone reactions." J. Phys. Chem. 2013, 88, 124-126.
- Bruckner, A.; Kline, B. J.; **Quigley, E.** "The detection of fluorocarbon-water complexes in the atmosphere." J. Phys. Atmospheric Sci. 2012, 14, 428-431.
- Davis, J.; **Quigley, E.**; Bruckner, A. "A critical review of the kinetics of heterogeneous photochemical atmospheric reactions." Chem. Rev. 2012, 45, 120-145.
- **Quigley, E.**; Bruckner, A. "A novel optical technique for the measurement of atmospheric chlorofluorocarbons." J. Instrum. Anal. 2010, 135, 1214-1218.

## PATENT

- Peach, J. R.; Petrov, V.; Goldstone, W.; **Quigley, E.** Catalyst for the cycloamination of butenes, US Patent 4 333 219, March 24, 2009.

## References Page

You *may* choose to set up a separate page of references (set-up as above; 3-5 references...could be a combination of academic & industrial supervisors, focus on contacts from graduate-level work)

## EXAMPLE 3: Chemist With Postdoctoral Experience

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*Reagan R. Randolph*

1835 Eisenhower Circle  
Albuquerque NM 87185  
505-555-1212  
rrrandolph@yahoo.com

- OBJECTIVE** To use my creativity in new instrumentation for analyzing biologically important materials to assist in the research & development lab of your organization
- SUMMARY** Developed new techniques for the analysis of biomolecules  
Extensive experience characterizing RNA samples  
Strong background in ultrafast laser spectroscopy  
Investigated interfacial phenomena by using new spectroscopic techniques
- EDUCATION** PhD, Chemistry, University of Chicago (IL), 2011
- Thesis title: “Studies of Structure and Dynamics of Liquid Supported Monolayers”
  - Advisor: Professor Wilson Albright
- MS, Chemistry, University of Chicago (IL), 2008
- BS, Chemistry, University of Southern Florida (Tampa) 2006
- Thesis title: “Photochemistry and Photophysics of Cyclopropylphenols”
  - Advisor: Professor Stuart Anthony
- RESEARCH EXPERIENCE** Postdoctoral Fellow, Sandia National Laboratory (Albuquerque NM), 2011-present
- Developed novel signal amplification for detecting and sizing single RNA samples
  - Designed and implemented an efficient system for the mass spectrometric separation and identification of individual molecules
- Research Assistant, University of Chicago (IL), 2006-2011
- Advisor: Professor Wilson Albright
  - Maintained operational responsibility for Professor Albright's laser facility for the measurement of ultrafast kinetics of chemical phenomena in bulk liquid and at air-water interfaces
  - Investigated the molecular properties, orientation, kinetics, and relaxation phenomena at liquid and solid interfaces by nonlinear optical techniques
  - Led Advanced Physical Chemistry and Optical Methods of Analysis laboratories

# Reagan R. Randolph

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## RESEARCH EXPERIENCE CONTINUED

Undergraduate Research Assistant, University of South Florida (Tampa),  
2003-2006

- Advisor: Professor Stuart Anthony
- Studied photochemistry and photophysics of p-cyclopropylphenols both experimentally and theoretically

Research Assistant, Oak Ridge National Laboratory (TN), Summer 2005

- Supervisor: Dr. Leopold Wiseman
- Studied chlorofluorocarbons excited by gamma radiation using spectroscopy

## AFFILIATIONS

American Chemical Society, 2004-present

American Physical Society, 2008-present

Optical Society of America, 2008-present

## PUBLICATIONS

Albright, W.; **Randolph, R. R.** "A critical review of the structure and dynamics of liquid supported monolayers." *Chem. Rev.* 2011, 45, 320-362.

Davis, B.; **Randolph, R. R.**; Ickes, H. "Method for the preparation of monolayers of denatured RNA." *Biol. Chem.* 2010, 111, 124-127.

**Randolph, R. R.**; Davis, B.; Ickes, H. "The detection of monomeric RNA samples." *J. Biol. Chem.* 2009, 104, 4439-4445.

**Randolph, R. R.**; Albright, W. "A novel signal amplification for the detection of single RNA samples." *J. Instrum. Anal.* 2007, 134, 214-218.

**PRESENTATIONS** **Randolph, R.R.**; Albright, W. "Liquid Supported Monolayers: Structure and Dynamics." Oral presentation at the National Meeting of the American Chemical Society, March 2010.

**Randolph, R. R.** Anthony, S. "Photophysical analysis of p-cyclopropylphenol." Poster presentation at the University of Chicago Chemical and Physical Sciences Conference, January 2005.

## AWARDS

Phi Beta Kappa, 2008

Oak Ridge National Laboratory's Prestige Award, 2007

## References Page

You *may* choose to set up a separate page of references (set-up as above; 3-5 references...could be a combination of academic & industrial supervisors, focus on contacts from graduate & post-doc-level work)

## EXAMPLE 4: Academic Curriculum Vitae

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### Eugene Timmons

1400 North County Road

Zurich Switzerland A94724M

eugene.timmons@org.chem.ethz.ch

Swiss Federal Institute of Technology (ETH) +41 1 632-4430 (lab)

ETH Honggerberg-HCI F330 +41 1 362-7933 (home)

### EDUCATION

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PhD, Chemistry, December 2014, Cornell University, Ithaca NY

- GPA: 4.0/4.0

MS, Chemistry, May 2012, Cornell University, Ithaca NY

- GPA: 4.0/4.0

BS, Chemistry, May 2010, Pennsylvania State University, State College PA

- GPA: 3.82/4.0
- Dean's List, 2007-2010

### RESEARCH INTERESTS

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- Mechanistic enzymology, with an emphasis on natural product biosynthesis
- Enzyme evolution, with an emphasis on understanding the origins of substrate specificity, allosteric interactions, and enzyme complexes
- Protein engineering and design
- Developing and applying combinatorial methods in biology

### RESEARCH EXPERIENCE

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Postdoctoral Fellow, December 2014-Present, Swiss Federal Institute of Technology (ETH), Zurich Switzerland

Prof. Eric Hubbert

- Designed and constructed very large (>108 members) random gene libraries to investigate the frequency of occurrence of catalysts in protein sequence space
- Using binary patterning, 8 of the 20 standard amino acids, and chorismate mutase as a design scaffold, selected catalytically active variants at a frequency of 1 in 10,000 from a library that was 80% randomized versus the wild-type sequence
- Used iterative cycles of directed evolution and genetic selection to produce 40-fold improvements in the catalytic efficiency of a novel engineered homo-hexameric chorismate mutase

Graduate Researcher, July 2010- August 2014, Cornell University, Ithaca NY

Prof. Richard Barrett

Thesis title: "The Biosynthesis of Thiamin in E. coli: Biosynthesis of the Thiazole Moiety"

- Used several approaches in investigating the biosynthesis of thiamin, including chemical synthesis of thiazole precursors, purification and characterization of several E. coli and B. subtilis enzymes involved in the biosynthesis
- Utilized high-resolution mass spectrometry to track the generation of transient protein modifications during the sulfur transfer



# Eugene Timmons

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## RESEARCH EXPERIENCE continued

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Undergraduate Researcher, August 2007-May 2010, State University, State College PA  
Prof. Julia P. Huang

- Expressed and purified 6 mutants of sperm whale myoglobin from 80-L fermentations and measured their rates of heme orientation isomerization using paramagnetic region NMR spectra
- Discovered that long-range mutations exert a strong influence on the binding site of myoglobin

## PUBLICATIONS

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*(List all publications, reverse chronological order, on a CV)*

## TEACHING EXPERIENCE

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Lecturer, Fall 2015, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

- Presented eight 90-minute lectures in Biological Chemistry I, an introductory biochemistry course for chemistry majors

Teaching Assistant, January 2015-May 2016, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

- Supervised a PhD student, 3 MS students, and 2 undergraduate students

Teaching Assistant, Fall 2012, Cornell University, Ithaca NY

- Directly supervised 4 undergraduate students
- Assisted with graduate-level biological chemistry course
- Assisted with introductory organic laboratories and lecture courses

Chemistry Department Tutor, August 2010-April 2014, Pennsylvania State University, State College

- Conducted review sessions for general and introductory organic chemistry
- Held one-on-one help sessions for students

## AWARDS AND AFFILIATIONS

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- American Chemical Society Member, 2010-present
- NIH Biochemistry Training Grant, 2012-2014
- NIH Molecular & Cell Biology Training Grant, 2013-2014
- Teas Scholarship in Chemistry, Pennsylvania State University, 2008-2010

## OTHER POSSIBLE CATEGORIES??

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*(May wish to include things like community service, outreach, technological/lab skills, etc....whatever you think may be important to the particular institution)*

## REFERENCES

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*You may choose to set up a separate page of references (This candidate would list academic/research references.)*

# **ACTION VERBS**

## **Leadership & Organizational Skills**

Achieved  
Acquired  
Acted  
Adapted  
Administered  
Approved  
Arranged  
Ascertained  
Assembled  
Attained  
Audited  
Budgeted  
Catalogued  
Charged  
Chartered  
Completed  
Complied  
Conducted  
Controlled  
Decided  
Delegated  
Determined  
Directed  
Drove  
Earned  
Effected  
Eliminated  
Enhanced  
Ensured  
Exceeded  
Excelled  
Executed  
Expanded  
Guided  
Headed  
Hired  
Implemented  
Improved  
Increased  
Indexed  
Instigated  
Instituted  
Inventoried  
Kept  
Led  
Logged  
Managed  
Marketed  
Motivated  
Observed  
Ordered  
Organized  
Overcame  
Participated  
Performed  
Planned  
Prepared  
Presided  
Procured  
Projected  
Provided  
Ran  
Recommended  
Recorded  
Recruited  
Reorganized  
Scanned  
Scheduled  
Strategized  
Streamlined  
Succeeded  
Supervised  
Supported  
Unified  
Won

## **Research Skills**

Analyzed  
Appraised  
Classified  
Coded  
Collaborated  
Collected  
Compared  
Constructed  
Contrasted  
Contributed  
Coordinated  
Designed  
Detected  
Diagnosed  
Discovered  
Dissected  
Distributed  
Engineered  
Examined  
Experimented  
Explored  
Extracted  
Formulated  
Innovated  
Inquired  
Inspected  
Interpreted  
Invented  
Investigated  
Made  
Manipulated  
Maximized  
Minimized  
Modeled  
Modified  
Monitored  
Obtained  
Oversaw  
Pioneered  
Produced  
Proposed  
Reported  
Researched  
Reviewed  
Solved  
Specialized  
Stimulated  
Studied  
Summarized  
Surveyed  
Synthesized  
Theorized  
Transformed  
Verified

## **Technical Skills**

Applied  
Assessed  
Calculated  
Computed  
Correlated  
Devised  
Documented  
Estimated  
Financed  
Handled  
Integrated  
Maintained  
Operated  
Programmed  
Repaired

## **Creative Skills**

Built  
Conceived  
Conceptualized  
Created  
Developed  
Established  
Fashioned  
Founded  
Generated  
Initiated  
Inspired  
Launched  
Originated  
Piloted  
Revised  
Shaped  
Symbolized  
Tailored  
Visualized

## **Teaching & Helping Skills**

Advised  
Advocated  
Aided  
Allocated  
Approved  
Assessed  
Assisted  
Attended  
Cared  
Checked  
Clarified  
Coached  
Collaborated  
Conducted  
Cooperated  
Counseled  
Demonstrated  
Developed  
Diagnosed  
Directed  
Educated  
Enabled  
Encouraged  
Evaluated  
Examined  
Explained  
Facilitated  
Followed  
Fostered  
Guided  
Helped  
Illustrated  
Implemented  
Influenced  
Informed  
Inspired  
Instructed  
Lectured  
Led  
Mentored  
Planned  
Prompted  
Proposed  
Represented  
Reviewed  
Served  
Shaped  
Solicited  
Supported  
Sustained  
Taught  
Trained  
Tutored  
United

## **Communication Skills**

Addressed  
Advertised  
Answered  
Arbitrated  
Authored  
Clarified  
Communicated  
Compiled  
Composed  
Consulted  
Contacted  
Corresponded  
Critiqued  
Debated  
Delivered  
Demonstrated  
Drafted  
Edited  
Explained  
Informed  
Interviewed  
Introduced  
Mediated  
Moderated  
Narrated  
Negotiated  
Notified  
Offered  
Persuaded  
Presented  
Promoted  
Proofread  
Publicized  
Published  
Questioned  
Referred  
Related  
Responded  
Spoke  
Translated  
Wrote