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 resume or other job search question, please contact us at:
School of Chemical Sciences Career Services
105 Noyes Laboratory
217.333.1051 •careers@scs.illinois.edu • https://careers.scs.illinois.edu

EXAMPLE 1: Entry-Level BS Chemist

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 2020

- 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, 2017-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 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 2017

- 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, MatLab
- Acquainted with Cambridge Structural Database and Inorganic Crystal Structure Database

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 2014-January 2016
- Grant recipient from the General Electric Foundation, Summer 2015

ACTIVITIES

- Private music tutor (cello), 2014-Present
- Member, Alpha Delta Chi honor society, 2014-present
- Intern, Urbana Food Bank, Fall 2015

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

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 2020

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

BS, Chemistry (summa cum laude), Central College, Pella IA
May 2015

- 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
2015-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 2019

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

RESEARCH EXPERIENCE CONTINUED

Summer Intern, University of Illinois at Urbana-Champaign
Summer 2018

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

Undergraduate Research Assistant, Central College, Pella IA
2013-2015

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

AFFILIATIONS

- American Chemical Society, 2015-present
- Optical Society of America, 2013-present

PUBLICATIONS

- **Quigley, E**.; Morgan, J. P. "Computer simulation of ozone reactions." J. Phys. Chem. 2020, 88, 124-126.

- Bruckner, A.; Kline, B. J.; **Quigley, E**. "The detection of fluorocarbon-water complexes in the atmosphere." J. Phys. Atmospheric Sci. 2016, 14, 428-431.

- Davis, J.; **Quigley, E**.; Bruckner, A. "A critical review of the kinetics of heterogeneous photochemical atmospheric reactions." Chem. Rev. 2015, 45, 120-145.

- **Quigley, E**.; Bruckner, A. "A novel optical technique for the measurement of atmospheric chlorofluorocarbons." J. Instrum. Anal. 2015, 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, 2016.

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

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), 2018
- Thesis title: "Studies of Structure and Dynamics of Liquid Supported Monolayers"
- Advisor: Professor Wilson Albright

MS, Chemistry, University of Chicago (IL), 2016

BS, Chemistry, University of Southern Florida (Tampa) 2014
- Thesis title: "Photochemistry and Photophysics of Cyclopropylphenols"
- Advisor: Professor Stuart Anthony

RESEARCH EXPERIENCE

Postdoctoral Fellow, Sandia National Laboratory (Albuquerque NM), 2018-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), 2016-2018
- 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

RESEARCH EXPERIENCE CONTINUED

Undergraduate Research Assistant, University of South Florida (Tampa), 2011-2014

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

Research Assistant, Oak Ridge National Laboratory (TN), Summer 2012

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

AFFILIATIONS

American Chemical Society, 2013-present
American Physical Society, 2013-present
Optical Society of America, 2012-present

PUBLICATIONS

Albright, W.; **Randolph, R. R.** "A critical review of the structure and dynamics of liquid supported monolayers." Chem. Rev. 2018, 45, 320-362.

Davis, B.; **Randolph, R. R.**; Ickes, H. "Method for the preparation of monolayers of denatured RNA." Biol. Chem. 2018, 111, 124-127.

Randolph, R. R.; Davis, B.; Ickes, H. "The detection of monomeric RNA samples." J. Biol. Chem. 2017, 104, 4439-4445.

Randolph, R. R.; Albright, W. "A novel signal amplification for the detection of single RNA samples." J. Instrum. Anal. 2016, 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 2018.

Randolph, R. R. Anthony, S. "Photophysical analysis of p-cyclopropylphenol." Poster presentation at the University of Chicago Chemical and Physical Sciences Conference, January 2017.

AWARDS

Phi Beta Kappa, 2012
Oak Ridge National Laboratory's Prestige Award, 2014

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 4: Academic Curriculum Vitae

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

PhD, Chemistry, August 2017, Cornell University, Ithaca NY
- GPA: 4.0/4.0

MS, Chemistry, September 2015, Cornell University, Ithaca NY
- GPA: 4.0/4.0

BS, Chemistry, May 2013, Pennsylvania State University, State College PA.
- GPA: 3.82/4.0
- Dean's List, 2010-2013

RESEARCH INTERESTS

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

RESEARCH EXPERIENCE

Postdoctoral Fellow, December 2017-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 2013- August 2017, 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.

RESEARCH EXPERIENCE continued

Undergraduate Researcher, August 2010-May 2013, 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

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

TEACHING EXPERIENCE

Lecturer, Fall 2019, 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 2017-May 2018, Swiss Federal Institute of Technology (ETH), Zurich, Switzerland

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

Teaching Assistant, Fall 2015, 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, October 2013-April 2015, 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

- American Chemical Society Member, 2011-present
- NIH Biochemistry Training Grant, 2013-2015
- NIH Molecular & Cell Biology Training Grant, 2014-2015
- Teas Scholarship in Chemistry, Pennsylvania State University, 2011-2013

OTHER POSSIBLE CATEGORIES??

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

REFERENCES

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)

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