DEPARTMENT OF CHEMISTRY
CHEM 4901 Independent Study – Faculty List

The faculty listed below are interested in having undergraduates undertake independent research in their groups. More information on faculty research activities can be found on their faculty web pages: **https://www.colorado.edu/chemistry/people**. Please contact faculty members directly to discuss the possibility of guided research in their lab. Note that you may also arrange to do independent study with faculty not listed here.

Jordy Bouwman Email: jordy.bouwman@colorado.edu	cosmochemistry; interstellar chemistry; physical chemistry; computational chemistry; (laser) spectroscopy	Desired qualifications: minimum commitment of two semesters, 10–12 hrs/week., 3.2 or higher GPA Interested students should submit: vita, unofficial transcript, statement of why you are interested in the group Additional information: requires an interview
Gordana Dukovic Office: Ekeley M331, 303–735–5297 Email: gordana.dukovic@colorado.edu	nanoscale materials for solar energy harvesting; synthesis of inorganic nanomaterials; time–resolved spectroscopy	Desired qualifications: 3.5 or higher GPA Interested students should submit: vita, unofficial transcript, names of instructors for recent chemistry courses
Steven M. George Office: Ekeley W145B, 303–492–3398 Email: steven.george@colorado.edu	surface chemistry; thin film growth & etching; nanostructure engineering; atomic layer deposition; atomic layer etching; semiconductor processing; nanocomposite materials; thin film properties	Desired qualifications: 3.2 or higher GPA; minimum time commitment of 9-10 hours per week; prefer year-long commitment; prefer students interested in pursuing an honors thesis Interested students should submit: vita; unofficial transcript
Ralph Jimenez Email: rjimenez@jila.colorado.edu Website: https://jila.colorado.edu/jimenez	experimental physical chemistry; photophysics of fluorescent proteins; quantum science; molecular imaging Please see website for more information.	Desired qualifications: students who feel comfortable with a quantitative approach to science (e.g. detailed data analysis, programming simulations); 3.5 or higher GPA; minimum time commitment of approximately 10 hours/week for at least two semesters; prefer students in a sophomore year intending to pursue an honors thesis Interested students should submit: a statement explaining interest in joining the group
David Jonas Office: Ekeley W145D, 303–492–3818 Email: david.jonas@colorado.edu	reaction dynamics in condensed phases; femtosecond spectroscopy; materials for light harvesting; two–dimensional spectroscopy	Desired qualifications: general chemistry plus all math and physics required for the chemistry major; physical chemistry preferred; minimum time commitment of 6 hours per week for two semesters Interested students should submit: brief statement of reason interested in joining the group

Oana Luca Office: Cristol 154, 303–732–6721 Email: oana.luca@colorado.edu	inorganic chemistry; physical organic chemistry; green chemistry; organometallic synthesis	Desired qualifications: minimum commitment of two semesters; 10–12 hrs/week; GPA 3.2 or higher Interested students should submit: vita, unofficial transcript, statement of why you are interested in the group Additional information: position does not require prior experience; requires an interview; prefers students in their sophomore year
Andrés Montoya–Castillo Office: Ekeley M323, 303–492–5741 Email: andres.montoyacastillo@colorado.edu	theoretical chemistry; quantum dynamics of light–induced excitations and charge (electron & proton) transfer; quantum information; decoherence in near term quantum computers; multidimensional spectroscopy in the condensed phase; electrochemical and photo–induced catalysis for renewable energy	Desired qualifications: physical chemistry (or quantum in physics); calculus 1 & 2; linear algebra; programming experience preferred; minimum time commitment of 8 hours per week for 2 semesters Interested students should submit: brief statement of reason for interest in joining the group; unofficial transcript; names of instructors for recent chemistry courses
David J. Nesbitt Office: JILA A805, 303–492–8857 Email: david.nesbitt@colorado.edu	RNA/DNA folding kinetics; single molecule biophysics; laser spectroscopy; interstellar/atmospheric chemistry; solar energy; plasmonics; quantum dots; chemistry at gas–liquid interfaces	Desired qualifications: minimum GPA 3.2; pursuing honors thesis; 10–12 hrs/week Interested students should submit: vita; unofficial transcript Additional Information: I encourage students to start in sophomore year if at all possible; interview required
Maciej Walczak Office: Cristol 156, 303–492–7670 Email: maciej.walczak@colorado.edu	organic chemistry; synthesis; catalysis; chemical biology; drug discovery; natural products; chemistry/chemical biology of peptides, proteins, and carbohydrates	Desired qualifications: GPA 3.5 or higher; minimum commitment of two semesters plus a summer; prefer students interested in pursuing an honors thesis Interested students should submit: vita; unofficial transcripts
Xiang Wang Email: xiang.wang@colorado.edu	organic synthesis; chemical biology; high–throughput screening; microbiology; biochemistry; cell biology; medicinal chemistry; pharmacology	Desired qualifications: GPA 3.4 or higher; minimum commitment of two semesters plus a summer; 9 hrs/week or more; pursuing an honors thesis Interested students should submit: vita; unofficial transcripts
J. Mathias Weber Office: JILA A709, 303–492–7841 Email: weberjm@jila.colorado.edu	lasers; Raman microscopy; nanoparticles; materials under high pressure; organic semiconductors	Desired qualifications: 3.3 or higher GPA; minimum commitment of 3 credit hours per semester for two semesters; pursuing an honors thesis Interested students should submit: vita; unofficial transcript

Wei Zhang Office: Ekeley M343, 303–492–0652 Email: wei.zhang@colorado.edu	organic materials chemistry; supramolecular chemistry; polymer chemistry; porous materials; carbon capture; self-healing materials; biomaterials; nanocomposites	Desired qualifications: organic chemistry 1 and 2, lecture and lab; minimum time commitment of 8 hours per week Interested students should submit: unofficial transcript