ASTROCHEMISTRY CONCENTRATION

for the Astrochemistry Graduate Concentration

program coordinator:
overview of admissions & requirements: Astronomy Graduate Admissions (http://www.astro.illinois.edu/academics/graduate/)
overview of admissions & requirements: Chemistry Graduate Admissions (https://chemistry.illinois.edu/admissions/graduate-admissions/)
overview of grad college admissions & requirements: https://grad.illinois.edu/admissions/apply (https://grad.illinois.edu/admissions/apply/)
college website: https://las.illinois.edu/program website: department faculty: department office: phone: email:

Not accepting applications at this time.

The Astrochemistry graduate concentration (https://chemistry.illinois.edu/admissions/graduate/astrochemistry-graduate-concentration-not-currently-offered/) is intended for Ph.D. students in Chemistry or Astronomy who wish to gain the necessary background to perform original research in the emerging interdisciplinary field of astrochemistry. It is an addition to the Chemistry and Astronomy Ph.D. programs at Illinois and offers transcript recognition that will ensure that students are recognized as qualified by scientists in both traditional fields (chemistry and astronomy).

Astrochemistry Graduate Concentration

Astrochemistry (p. 1)
participating programs: Astronomy, PhD (http://catalog.illinois.edu/graduate/las/astronomy-phd/) | Chemistry, PhD (http://catalog.illinois.edu/graduate/las/chemistry-phd/)

Astrochemistry is an interdisciplinary area of knowledge at the intersection between chemistry and astronomy. As a few examples, topics of active research in this area include identifying organic molecules in interstellar space, building models of the chemical reactions that occur in interstellar space, laboratory measurements of astronomically important molecules, searching for Earthlike planets using molecular signatures, and understanding the contributions of interstellar molecules to the chemical origin of life. In order to succeed in this field, students require training in both of the traditional disciplines of chemistry and astronomy.

Admission
As the Astrochemistry graduate concentration (https://chemistry.illinois.edu/admissions/graduate/astrochemistry-graduate-concentration-not-currently-offered/) is a part of the Chemistry and Astronomy Ph.D. programs, students should submit applications directly to either the Department of Chemistry or the Department of Astronomy.

Faculty Research Interests
A variety of faculty members in the departments of Chemistry, Astronomy, and Physics have research interests related to astrochemistry. A partial listing of research groups is available on the Astrochemistry concentration website (https://chemistry.illinois.edu/admissions/graduate/astrochemistry-graduate-concentration-not-currently-offered/).

Facilities and Resources
Facilities that can be utilized by astrochemistry students in their thesis research include a wide variety of laboratory spectroscopy equipment in chemistry, the Combined Array for Research in Millimeter-wave Astronomy, computing facilities in both Chemistry and Astronomy, and other national and international observational astronomy facilities.

Financial Aid
Financial aid in the form of teaching assistantships and/or research assistantships is generally provided for admitted students by the Departments of Chemistry and Astronomy.

Other Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Graduate level Chemistry courses</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Graduate level Astronomy courses</td>
<td>12</td>
</tr>
<tr>
<td>ASTR/CHEM 450</td>
<td>Astrochemistry (required, but may be taken to satisfy required Chemistry or Astronomy courses above)</td>
<td>4</td>
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</tbody>
</table>

Total Hours 24

Other Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Other requirements may overlap</td>
<td>At least one member of each department must serve on the PhD thesis committee.</td>
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</tbody>
</table>

Thesis research must be related to astrochemistry.