

## David L Nieland

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**Subject:** MS Environmental Science Opportunity Texas A&M University - Corpus Christi

Environmental Science MS opportunity  
Stable isotope atmospheric chemistry  
Texas A&M University – Corpus Christi

An Environmental Science MS opportunity is available with the Felix Research Group in the Department of Physical and Environmental Sciences at Texas A&M University – Corpus Christi. The group's research focuses on using stable isotope techniques to investigate the sources, transport, and fate of reactive nitrogen and volatile organic compounds in the environment. The group's research across various earth systems provides a unique research experience that balances fieldwork with sample processing, sample analysis and development of novel stable isotope analysis techniques.

The potential MS student's research will use stable isotope techniques to investigate ammonia (NH<sub>3</sub>) emission sources in a South Texas coastal urban air shed, Corpus Christi, TX, U.S.A. NH<sub>4</sub><sup>+</sup> has been documented in the Corpus Christi air shed as a significant contributor to PM<sub>2.5</sub> and although the area is currently within the 3-year PM<sub>2.5</sub> attainment rule, there is a reported increasing PM<sub>2.5</sub> trend in this region. PM<sub>2.5</sub> attainment strategies for urban areas will rely on knowledge of NH<sub>3</sub> sources and NH<sub>3</sub> atmospheric chemistry and data provided by this study will provide urban stakeholders with potential avenues of NH<sub>3</sub> emission mitigation.

Potential students should be highly self-motivated and have a strong background in chemistry with extensive laboratory experience. The project relies heavily on stable isotope techniques so experience with these techniques is desired but not necessary. MS students would matriculate through the Environmental Science MS program ([http://gradschool.tamucc.edu/degrees/science/coastal\\_marine\\_sys\\_science.html](http://gradschool.tamucc.edu/degrees/science/coastal_marine_sys_science.html)). Interested candidates should contact Dr. J. David Felix ([joseph.felix@tamucc.edu](mailto:joseph.felix@tamucc.edu)) and provide a short statement of interest and CV. More information about the Felix Research Group and potential research can be found here [felixlab.tamucc.edu](http://felixlab.tamucc.edu). Information about the TAMU-CC isotope core facility can be found here <http://icl.tamucc.edu/>.

Thank you,

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