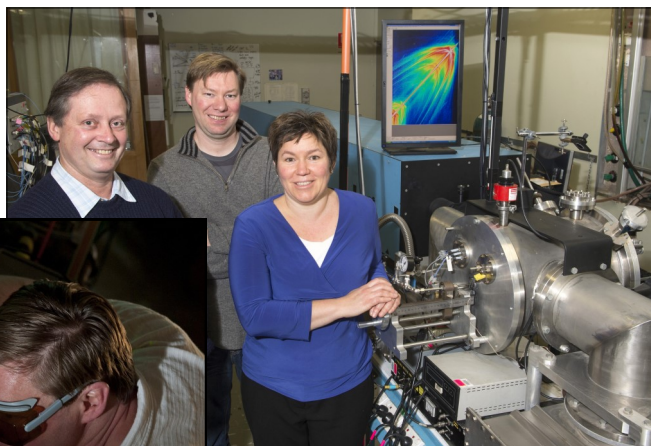


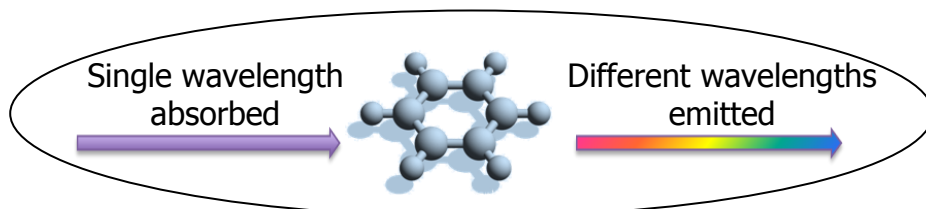
At Flinders University, lasers are used to investigate molecules and small clusters rotating and vibrating freely.



Prof Warren Lawrance, Dr Jason Gascooke, Dr Ula Alexander of the Laser Spectroscopy and Molecular Dynamics Lab, Flinders University

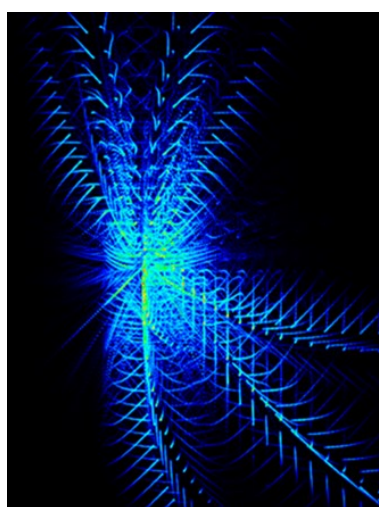


2-dimensional images are created by measuring wavelengths emitted while changing the laser wavelength.



The images are maps of the rotational and vibrational energy levels unique to each molecule. They allow us to find the 3-dimensional structure of the molecule.

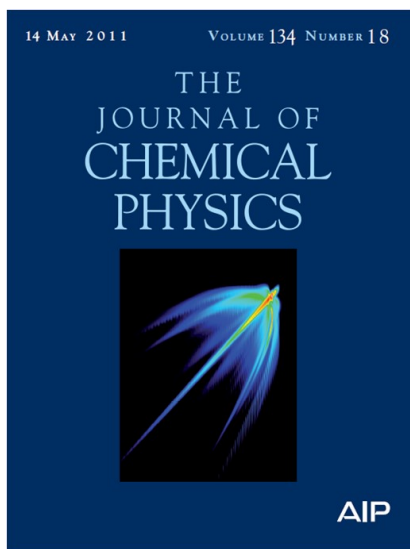
Emitted wavelength



Absorbed wavelength (laser)

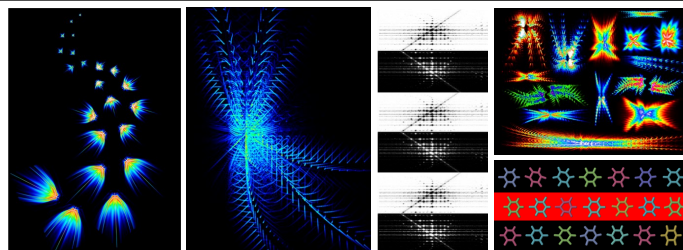


Our results have appeared on the cover of an international science journal.



A journal reviewer's comment — "this could be art" — led to a SALA 2012 exhibition then inclusion in InterAlia Science-Art Magazine has led to this SALA 2016 exhibition exploring the motion of molecules.

### Quantum Conversations: Micro-Motion



Dynamic motion of molecules explored through their quantum energy patterns as seen in the Laser Lab, Flinders University.

July 27 – Sept 1 South Australian Living Artists Festival 2016

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[www.TheArtisanCafe.com.au](http://www.TheArtisanCafe.com.au)

Opening night – Thursday August 11, 6-7.30pm.



**SALA**

Visit: [www.quantumconversations.net/projects/sala-2016/](http://www.quantumconversations.net/projects/sala-2016/)

