

## Re: CLOUD WATCHERS

**Source:** <http://sci.tech-archive.net/Archive/sci.physics/2004-10/0068.html>

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**From:** Dave Monroe ([monroeds\\_at\\_hampton-data.com](mailto:monroeds_at_hampton-data.com))

**Date:** 09/30/04

Date: 30 Sep 2004 06:09:34 -0700

Sam Wormley <[swormley1@mchsi.com](mailto:swormley1@mchsi.com)> wrote in message news:<oyF6d.282481\$Fg5.277550@attbi\_s53>...

> *Dave Monroe wrote:*

> > *Sam Wormley <[swormley1@mchsi.com](mailto:swormley1@mchsi.com)> wrote in message news:<4056d.127836\$D%.5760@attbi\_s51>...*

> >

> >> *PHYSICAL REVIEW FOCUS 27 September 2004 <http://focus.aps.org/>*

> >> *David Ehrenstein and Chelsea Wald, American Physical Society*

> >>

> >> *Introductions to the Focus stories of the past week;*

> >> *visit <http://focus.aps.org> for the complete stories.*

> >>

> >> **CLOUD WATCHERS**

> >> *Researchers have demonstrated a new method of observing the electron "clouds" surrounding simple molecules. Using laser pulses,*

> >> *they split molecules of oxygen and nitrogen into pairs of ions,*

> >> *then reconstructed the shapes of the molecules' original electron*

> >> *clouds, or "orbitals," based on the ions' paths. The results,*

> >> *published in the 10 September PRL, confirm the theoretical*

> >> *prediction that the likelihood of a molecule breaking up in an*

> >> *electric field depends on the shapes of its orbitals. The technique*

> >> *may help researchers probe reactions that occur in laser fusion*

> >> *systems, in the sun's corona, and between biological molecules.*

> >> *(A. S. Alnaser et al., Phys. Rev. Lett. 93, 113003)*

> >> *Link to the paper: <http://link.aps.org/abstract/PRL/v93/e113003>*

> >> *COMPLETE Focus story at <http://focus.aps.org/story/v14/st12>*

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> >> *Also from PRL (story from AIP's Physics News Update):*

> >>

> >> **THE QUARK-MESON COUPLING MODEL**

> >> *Story at*