**Cover**

See A. Sanov and W. C. Lineberger, pp. 2018–2032.

Artist's view of the s&p model treatment of negative-ion photodetachment. The electron waves shown are responsible for the angular anisotropy of the photoelectron images, which are depicted as islands floating among the water waves. The third of the three photoelectron images (islands) corresponds to 400 nm photodetachment of  $S_2^-$ , while the first and second are obtained in 800 and 267 nm detachment from  $CS_2^-$ , respectively. The molecular orbitals (shown in different lab-frame orientations) on the right are the  $a_1$  HOMO,  $b_2$  (HOMO - 1) and  $a_2$  (HOMO - 2) of the anion. The s and p orbitals on the left represent the s&p-wave expansion of the free (photodetached) electron formed via the  $a_1^{-1}$ ,  $b_2^{-1}$ , and  $a_2^{-1}$  photodetachment channels (laser polarization is assumed to be vertical). The corresponding photodetachment bands can be seen in the middle photoelectron image below.

Image kindly supplied by A. Sanov, Department of Chemistry, University of Arizona, Tucson, AZ, USA.



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## Chemical Science

May 2004/Volume 1/Issue 5  
[www.rsc.org/chemicalscience](http://www.rsc.org/chemicalscience)

Drawing together the research highlights and news from all RSC publications, *Chemical Science* provides a 'snapshot' of the latest developments across the chemical sciences showcasing newsworthy articles, as well as the most significant scientific advances.

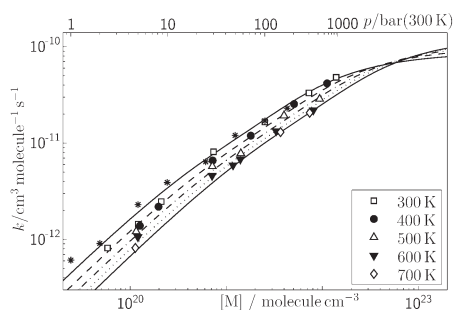
1997 1999

### COMMUNICATIONS

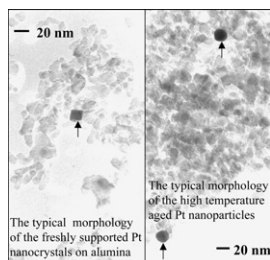
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J. Hahn, L. Krasnoperov, K. Luther and J. Troe

The falloff curves of a central reaction in combustion and supercritical water oxidation were for the first time measured up to very high temperatures and pressures



2000 2002

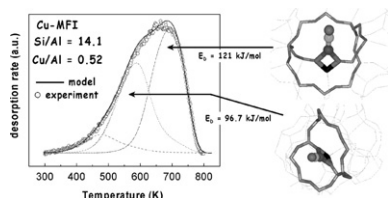


### Effect of platinum morphology on lean reduction of NO with C<sub>3</sub>H<sub>6</sub>

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The relationship between the morphology (size and shape) of alumina supported Pt nanoparticles and catalytic behavior for lean reduction of NO with C<sub>3</sub>H<sub>6</sub> is investigated.

2003 2007

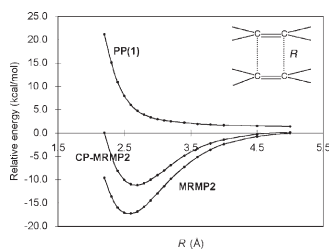


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Information about framework Al localization can be obtained from CO-TPD spectra analysis of Cu<sup>+</sup>/ZSM-5.

2008 2011

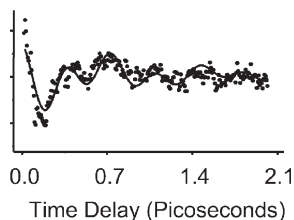


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2012 2014

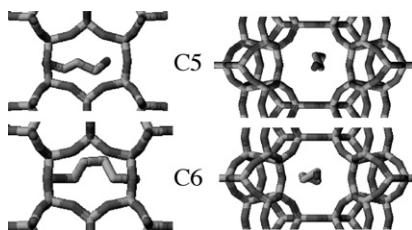


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