Julius-Maximilians-
UNIVERSITÄT
WÜRZBURG

Kolloquium der Physikalischen und Theoretischen Chemie

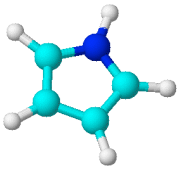
Dienstag, 30.04.2013 **Hörsaal D, Chemie Zentralbau, 17:15 Uhr**

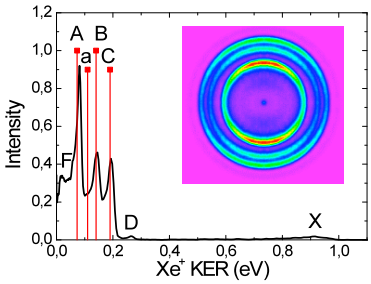
Sprecher: **Theofanis Kitsopoulos**
University of Crete (Greece)

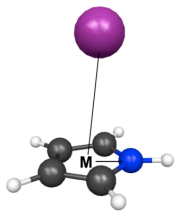
Titel: **Slice Imaging and applications to Photofragmentation of Molecules and Clusters and Reactive Scattering**

Abstract:

Since the introduction of Velocity Map Imaging[i], the high resolution analog of Ion Imaging[ii], it popularity has grown to the point where potentially it has surpassed the traditional time-of-flight analysis[iii] as the method of choice for analyzing velocity and state distributions of electrons, atoms and molecules. Slice Imaging[iv,v,vi], is a variant of velocity map imaging, with the added advantage that it eliminates the need for cylindrical symmetry and noisy mathematical transformations necessary to extract 3-D information for 2-D images. Slice imaging allows for direct measurement of slice through the 3D distribution. In this talk I will present applications of this method to the study of the photofragmentation of small molecules (HCl, HBR, ICl), larger molecules such as pyrrole and clusters such as $(ICl)_M Xe_N$, $(CH_3I)_M Xe_N$.







[i] A. T. J. B. Eppink and D. H. Parker, *Rev. Sci. Instrum.* **68**, 3477 (1997)
[ii] D. W. Chandler and P. L. Houston, *J. Chem. Phys.* **87**, 1445 (1987)
[iii] W. C. Wiley and I. H. McLaren, *Rev. Sci. Instrum.* **26**, 1150 (1955)
[iv] C. R. Gebhardt, T. P. Rakitzis, P. C. Samartzis, V. Ladopoulos, and T. N. Kitsopoulos, *Rev. Sci. Instrum.* **72**, 3848 (2001)
[v] J. J. Lin, J. Zhou, W. Shiu, and K. Liu, *Rev. Sci. Instrum.* **74**, 2495 (2003)
[vi] D. Townsend, M. P. Minitti, and A. G. Suits, *Rev. Sci. Instrum.* **74**, 2530 (2003)

Organisation: I. Fischer

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Weitere Informationen unter:
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