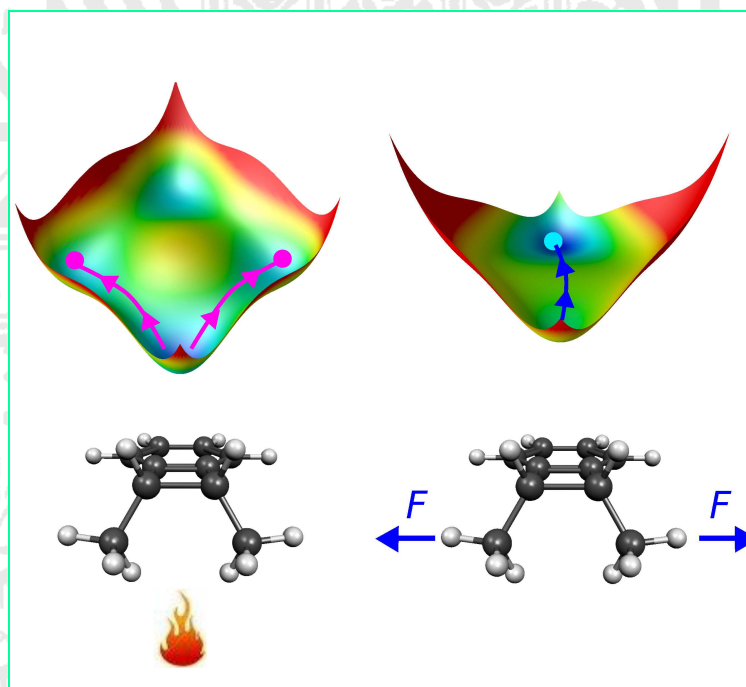


PHYSIKALISCHES KOLLOQUIUM

AM 18. NOVEMBER 2013 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



MOLECULAR NANO (NEWTON)MECHANICS

PROF. DR. DOMINIK MARX

LEHRSTUHL FÜR THEORETISCHE CHEMIE,
RUHR-UNIVERSITÄT BOCHUM

The manipulation of covalent bonds in molecular systems using mechanical forces became possible only during the last decade. Several experimental advances made possible the site-specific application of forces in the nano-Newton range required to break or make chemical bonds. Much in parallel with experimental advances, theoretical approaches were developed which pave the way to understanding these phenomena. My lecture will give an overview of our efforts to unveiling the nanomechanical properties of molecule/metal junctions and of force-induced reactions in the condensed phase.