

## W. E. (William E.) Moerner

Harry S. Mosher Professor of Chemistry and Professor, by courtesy, of Applied Physics  
BioX, Biophysics, and ChEM-H Programs, Stanford University

### Education:

- 1982: PhD (Physics), Cornell University

### Positions:

- 1981-95: Research Staff Member, IBM Almaden Research Center, San Jose, CA.
- 1993-1994: Guest Professor of Physical Chemistry, ETH Zürich
- 1995-98: Distinguished Professor, Chemistry and Biochemistry, University of California, San Diego
- 1998-: Professor, Chemistry; Courtesy Professor, Applied Physics, Stanford University.

### Selected Awards:

- 2007, Member of the National Academy of Sciences
- 2008, Wolf Prize in Chemistry
- 2009, Irving Langmuir Prize in Chemical Physics
- 2013, Peter Debye Award in Physical Chemistry
- 2014, Nobel Prize in Chemistry for super-resolved fluorescence microscopy

### Research Interests:

- Physical chemistry, biophysics, and the optical properties of single molecules
- Active development of 2D and 3D super-resolution optics and imaging for cell biology
- Imaging studies include protein superstructures in bacteria, structure of proteins in cells, studies of chromatin organization, and dynamics of regulatory proteins in the primary cilium.
- Measurements of the motions of single proteins, DNA, and RNA in 3D in real time
- Precise analysis of photodynamics of single trapped biomolecules in solution, with applications to photosynthesis, protein-protein interactions, and transport measurements