



Northeast  
Georgia  
Section of the  
American  
Chemical Society



**ACS**  
Chemistry for Life®

## Schleyer Dinner and Lecture Invitation

Dear ACS member:

The Northeast Georgia Section of the American Chemical Society cordially invites you to attend the Schleyer Lecture and its dinner and after dinner talk. The speaker of the Schleyer Lecture and after dinner talk will be Dr. Martin Quack from the Swiss Federal Institute of Technology (ETH), Zurich. A biographical sketch of Dr. Quack is enclosed. The Schleyer Lecture is titled *The Quantum Dynamics of Stereomutation and Electroweak Parity Violation in Chiral Molecules: Theory and Experiment* and will be held Tuesday, February 28 at 11:00 am in room 400 of the Chemistry Department at The University of Georgia.

The after dinner talk is titled *Freedom of Will: A Fresh Look through the Eyes of a Physical Chemist*. The dinner and after dinner talk will be held at the Taylor-Grady House (#634 Prince Ave, Athens, GA 30601). This is a no-cost dinner for section members. You are encouraged to bring a guest at a cost of \$20. Please RSVP on the enclosed form by Friday, February 24.

I look forward to share this event with you and your guest.

Social Time	6:00 PM
Dinner	6:30 PM
Speaker	7:30 PM

Sincerely,

Dalizza Colón  
U.S. EPA  
NEGS ACS, Chair

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## BANQUET SPEAKER'S BIOGRAPHICAL SKETCH

### Martin Quack

Martin Quack is a physical chemistry professor at the Swiss Federal Institute of Technology (ETH, Zurich) since 1983. He studied chemistry and chemical physics in Darmstadt (Germany), Grenoble (France), and Göttingen (Germany), where he received his chemistry diploma in 1971. His diploma thesis was on the resonance fluorescence of aniline vapor, a work conducted with Manfred Stockburger and Albert Weller at the Max-Planck Institutes for Spectroscopy and Biophysical Chemistry. He received his doctoral degree from the Swiss Federal Institute of Technology working with Jürgen Troe in reaction kinetics. His dissertation included the development of the statistical adiabatic channel model (SACM) for unimolecular and complex forming bimolecular reactions, which has found wide use in gas phase kinetics. As a Max-Kade fellow, he worked with William H. Miller at the University of California, Berkeley (1976-77) and conducted work on infrared laser chemistry and multiphoton excitation at the University of Göttingen (1978). He remained at the University of Göttingen as Associate Professor and Professor until 1982, when he was appointed as full Professor at the University of Bonn. In 1983, he accepted a full professor position at the Swiss Federal Institute of Technology. During 1988, he was a Hinshelwood Lecturer at the University of Oxford and Christensen Fellow at St. Catherine's College, and in 2005, he was a Miller Professor at the University of California at Berkeley.

Martin Quack's research interests are in the areas of high resolution spectroscopy, infrared laser chemistry, and kinetic primary processes in polyatomic molecules. He formulated the foundations of detailed symmetry selection rules in chemical reactions, based on the principles of approximate conservation of parity and nuclear spin symmetry. He also developed the first complete theory of infrared multiphoton excitation and laser chemistry of polyatomic molecules, confirmed later by many experimental tests conducted by his group and others. As an alternative and complement to the femtosecond pump-probe kinetic experiments, he introduced the high resolution spectroscopic approach to study the short-time range dynamics of intramolecular processes from the sub-femtosecond to nanosecond time scales, formulating in this context, the concepts of the quantum dynamics of functional groups and of quasiadiabatic above barrier tunneling in chemical reactions of hydrogen bonded clusters and chiral molecules. A major current effort of his research group is focused on the theory of molecular parity violation and experimental attempts to measure the parity violating energy difference between enantiomers of chiral molecules, which so far is predicted only theoretically, by measuring the new primary process of parity change with time in isolated molecules.

He has been the recipient of numerous honors such as the Nernst- Haber -Bodenstein prize (1982), Otto Klung prize (1984), Otto Bayer prize (1991) and the Paracelsus prize (2002) of the Swiss Chemical Society, as well as, the Erwin Schrödinger gold medal of SASP and Innsbruck University (2006), and the BOMEM Michelson Award of the Coblenz Society (2009). He was elected Fellow of the American Physical Society in 1990, member of the German Academy of Sciences Leopoldina (1998), member of the Berlin Brandenburg (formerly Prussian) Academy of Sciences (1999), and holds an honorary doctorate from the University of Göttingen (2009). Since 2011, he is the chairman of the Bunsen Society for Physical Chemistry (DBG). Together with his colleague Frédéric Merkt, Martin Quack has co-edited and coauthored the Handbook of High Resolution Spectroscopy, which is a landmark publication in such field.

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**SCHLEYER DINNER RESERVATION**

Please send\* back to  
Maurice Snook (use Campus Mail if available) at  
USDA-ARS/Richard Russell Research Center  
950 College Station Rd  
Athens, GA 30605 (706.546.3405)  
Or  
call Dalizza Colón (706.340.2900)

\_\_\_\_\_ Yes, I will attend the Schleyer dinner by myself.  
Name \_\_\_\_\_

\_\_\_\_\_ Yes, I plan to attend the Schleyer dinner with a guest.  
Please enclose check for \$20.00 to NEGS ACS.  
Name(s) \_\_\_\_\_  
\_\_\_\_\_

