



ACS Local Section
New York
Westchester Chemical Society

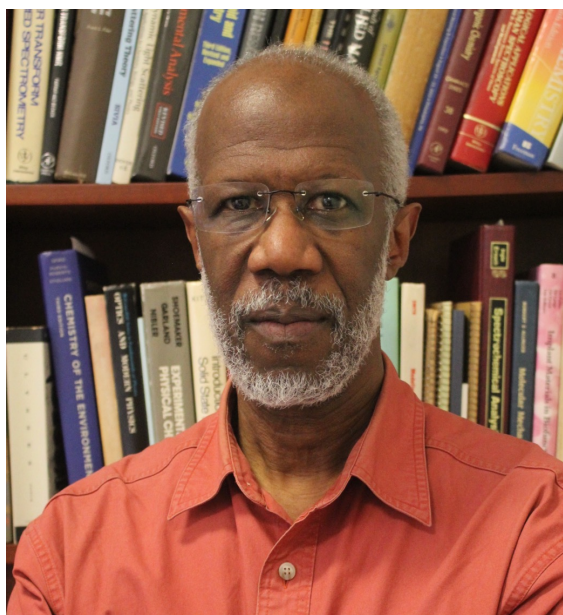
**2022 Distinguished Scientist
and
2022 Student Achievement Awards
for
Westchester Chemical Society**

**Calcium, Silver, Zinc and Phosphate:
Perspectives on Bones and Teeth**

**Speaker: Marc Walters, Ph.D.
Professor,
New York University,
NY, NY
2022 Distinguished Scientist
Westchester Chemical
Society**

**Date: Thursday, April 28, 2022
Place: Hybrid meeting
In-person meeting
Pace University
Wilcox Multipurpose Room
Wilcox Hall
861 Bedford Rd
Pleasantville, NY
OR
ZOOM link**

Cost: \$30



Abstract: The talk will review recent phosphate mineral research in Dr. Walters' lab that focused on the treatment of dental caries by inorganic reagents such as silver diamine fluoride and related complexes that can eliminate the need for a dentist drill..



Calcium, Silver, Zinc and Phosphate: Perspectives on Bones and Teeth

Biography:

Dr. Marc Walters. Dr. Walters earned his bachelor's degree in chemistry from the City College of New York in 1976. He received his Ph.D. in 1981 from Princeton University where, under the mentorship of T.G. Spiro, he studied the mechanism of the cooperative binding of oxygen by hemoglobin using resonance Raman spectroscopy. This was followed by postdoctoral research in the laboratory of W.H. Orme-Johnson 9/81 - 9/85 where he investigated the molybdenum-iron cofactor of the enzyme nitrogenase using FT-IR and mass spectrometry. Marc has been a professor at New York University since 1985. He has pioneered the development of air sensitive hydrogen bonding inorganic complexes as models for the active sites of iron-sulfur proteins. This work enabled the high fidelity examination of hydrogen bonding influences on redox potentials in these proteins. It also led to the development of reverse micelle and nanoparticles containing or constructed from transition metal coordinating complex subunits. A second area of his research has been the vibrational spectroscopic characterization of the phosphate mineral hydroxyapatite at the bone-implant interface as it pertains to prosthetic implants. Recent phosphate mineral research in his lab is focused on the treatment of dental caries by inorganic reagents such as silver diamine fluoride and related complexes that can eliminate the need for the dentist's drill. Dr. Walters has published 50+ articles and book chapters based on his meaningful and scholarly research.

Dr. Walters has compiled an exemplary record of service to the scientific community, especially as a constant volunteer with the American Chemical Society, both at the national and local level. Over the years, Dr. Walters has served as a Councilor for the New York Section of the American Chemical Society (NY-ACS), member of the ACS National Award Selection Committee, Treasurer for the Inorganic Chemistry Section, Director at Large for the ACS NY Section, and Chair of the Government Affairs Committee for the NY-ACS Section. He also was awarded the ACS New York Section, Outstanding Service Award in 2013. Dr. Walters is a past chair of the New York Section of the American Chemical Society, and is an ACS Fellow.

Event Details on the next page



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EVENT DETAILS

****Important Notice to all in-person attendees:****

Documentation of full vaccination status plus booster must be provided along with an ID to attend this event

Masks are currently required on the Pace University campus

Date: Thursday, April 28, 2022 **RSVP by April 25 to**
Peter Corfield at pwrc@earthlink.net

Cost: \$30

Time: 5:00 Coffee Hour
5:50 Welcome
6:00 Presentation of Awards and Lecture
7:20 Dinner

In Person Ceremony

Place: Wilcox multipurpose room in Wilcox Hall
Pace University, 861 Bedford Rd, Pleasantville, NY 10570

Virtual attendees

Please contact Peter Corfield for the Zoom meeting link