

Join AVS in Advancing the Science and Technology of Materials, Interfaces, and Processing



As a member-driven, interdisciplinary organization, AVS supports networking among academic, industrial, government, and consulting professionals involved in a variety of disciplines—chemistry, physics, materials science, engineering, biology, mathematics, business, sales, etc.—through common interests related to the basic science, technology development, and commercialization of materials, interfaces, and processing.

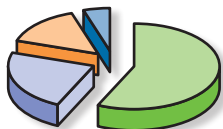
Members choose AVS not only because it is important to their professional development, but for the networking opportunities it provides, as well as a high level of camaraderie they enjoy at our meetings and events. The interdisciplinary nature of AVS offers the opportunity for very unique collaborations in many different areas of science and technology. In addition, AVS encourages your participation in Society leadership roles, offering easy entry into our committees, divisions, and technical groups.

Founded in 1953, AVS is organized into technical divisions and groups that encompass a range of established as well as emerging science and technology areas. There are also regional chapters, international chapters and affiliates, and student chapters that promote communication and networking for professionals and students within a geographical region. AVS is comprised of approximately 4,500 members worldwide.

AVS members are invited to take advantage of the following benefits and activities:

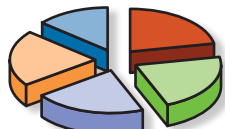
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AVS MEMBER PROFILE



AVS Membership

- 57% Industry
- 23% Academia
- 15% Government
- 5% Nonprofit



AVS Membership Disciplines

- 22% Engineering
- 22% Materials Science
- 21% Physics
- 21% Other
- 14% Chemistry

Your Involvement & Support Matters

The vitality of AVS is derived from the unselfish commitment of a large number of dedicated volunteers who serve in all facets of AVS governance and operation. They are backed by our exceptional and professional AVS staff. To these people and to the many industrial and government organizations that have provided their support, AVS acknowledges its deep indebtedness.

“Becoming an officer in an AVS division has been a tremendous benefit to my professional life. I am surrounded by inspirational and committed colleagues, and I am in closer contact with the latest developments in my field and the researchers making them happen.”

Brian Borovsky, St. Olaf College
(AVS Nanoscale Science and Technology Division Secretary)

The governance or technical structure of AVS is organized as a matrix. Members can participate in one or more Divisions or Technical Groups, each of which is focused around a major topical area. Members may also participate in Regional Chapters, International Chapters and Affiliates, and Student Chapters.

Divisions

- Advanced Surface Engineering
- Applied Surface Science
- Biomaterial Interfaces
- Electronic Materials and Processing
- Magnetic Interfaces and Nanostructures
- Nanometer-Scale Science and Technology
- Plasma Science and Technology
- Surface Science
- Thin Film
- Vacuum Technology

Technical Groups

- Manufacturing Science and Technology
- MEMS and NEMS

Chapters

Chapters serve members and their communities through a variety of activities such as symposia, monthly dinner meetings, short course programs, student awards, and industry tours.

Regional Chapters

- Delaware Valley Chapter
- Florida Chapter
- Hudson Mohawk Chapter
- Michigan Chapter
- Mid-Atlantic Chapter
- Minnesota Chapter
- New England Chapter
- New Mexico Chapter
- Northern California Chapter
- Ohio Chapter
- Pacific Northwest Chapter
- Prairie Chapter
- Rocky Mountain Chapter
- Southern California Chapter
- Tennessee Valley Chapter
- Western Pennsylvania Chapter

International Chapters & Affiliates

- Israel Vacuum Society
- Taiwan AVS

Student Chapters

Student Chapters provide university students tailored opportunities for career and professional development.

- Northwestern University
- UCLA
- University of Alabama at Tuscaloosa
- University of Central Florida
- University of Florida
- University of Illinois at Urbana-Champaign
- University of Washington

Develop Your Leadership Skills

Lead or volunteer on a local, national, or international committee or division

Serve as an AVS Director or Officer

Start a new Student Chapter



Committees

Make a difference in the science and technology community, and consider joining an AVS Committee. Opportunities to assist with everything from preserving AVS History to recommending financial investments to forming governmental policy, legislation, and programs that have a direct bearing on the well-being of the science community and AVS in particular are available.

Publications

AVS membership entitles you to FREE online access to all AVS publications which are highly cited, topically diverse, easy to access, and rapidly disseminated worldwide. Use the AVS Publications Digital Library as your portal to access all four AVS journals. The Digital Library features recently published and research highlights as well as advanced search capabilities.

JVST A - *Journal of Vacuum Science and Technology A: Vacuums, Surfaces, and Films*
■ www.jvsta.org

JVST A publishes original research on thin films, plasmas, interfaces and surfaces. *JVST A* focuses on fundamental understanding and using this understanding to advance the state-of-the-art in various technological applications. *JVST* journals publish research articles, research letters, review articles, perspectives, shop notes, brief reports and commentaries.



JVST B - *Journal of Vacuum Science and Technology B: Nanotechnology & Microelectronics*
■ www.jvstb.org

JVST B publishes original research that emphasizes processing, measurement and phenomena associated with micrometer and nanometer structures and devices. Processing may include vacuum processing, plasma processing and microlithography among others, while measurement refers to a wide range of materials and device characterization methods for understanding the physics and chemistry of submicron and nanometer structures and devices.



Biointerphases - *The Journal for Quantitative Biological Interface Data*
■ www.biointerphases.org

Biointerphases is open access and features all aspects of quantitative soft matter interfaces: chemistry, physics, engineering, theory and modeling. Topics such as interface spectroscopy, in vivo and in vitro mechanisms, interface modeling, adhesion phenomena, protein-surface interactions, the nano-bio interface, biomembranes on a chip, cell-surface interactions, biosensors / biodiagnostics, bio-surface modification, and similar interdisciplinary topics are included.



Surface Science Spectra - *An International Journal and Database*
■ www.avspublications.org/sss

Surface Science Spectra publishes reference, comparison, and technical spectra representing a range of spectra including XPS, AES and SIMS. *SSS* features over 780 different materials with downloadable data, as well as, focused-topic submissions which contribute to the completeness of the archival database by including collections of spectra on materials of particular interest to the community.



Broaden & Share Your Knowledge

FREE Online Access to all AVS publications with AVS Membership

Submit your manuscript where it will be highly cited and rapidly disseminated worldwide. Papers submitted to *JVST A* or *JVST B* by an AVS Full member incur **NO PAGE CHARGES**

AVS members also receive three e-newsletters and the science news publication *Physics Today*.

- **AVS Interactions** - Symposium and exhibit news
- **AVS President's Message** - Society business and member news
- **Beneath the AVS Surface** - Member, scientific and technical news and highlights

Buyers Guide

The **Buyers Guide** is a searchable database for prospective purchasers of scientific and technical equipment and services to find company and product information, including web and e-mail links. AVS members have access to the Technical Resources section offering utilities such as conversion calculators, reference materials, and periodic tables.



One of the major ways in which AVS promotes sharing of research and development findings in the science and technology community is through the annual AVS International Symposium and Exhibition and numerous topical conferences held throughout the year. AVS also provides a variety of career service opportunities as well as training and educational resources.

Expand Your Network

Attend AVS meetings at discounted registration rates

Submit an abstract to make an oral or poster presentation

Become active in a Division or Technical Group and participate on their program committee

Champion a Focus Topic or Topical Conference

Volunteer to moderate a session

Technical Meetings

The **International Symposium and Exhibition** addresses cutting edge issues associated with materials, processing and interfaces in both the research and manufacturing communities. The weeklong Symposium fosters a multidisciplinary environment that cuts across traditional boundaries between disciplines, featuring papers from AVS Technical Division, Groups, Focus Topics on emerging technologies and more.

An extensive Exhibition of related equipment, tools, materials, supplies, chemicals, services, consulting, technical literature, and new technologies are showcased during the week. As an AVS member you will receive reduced registration fees.

AVS also endorses and sponsors many **topical conferences** each year. These conferences with a specialized focus are held worldwide. Members are encouraged to organize a topical conference in their area of expertise. AVS staff can provide a full range of conference management services and promotional assistance.

Enhance Your Career

Take advantage of FREE career enhancement opportunities through the online career center and at AVS meetings

Need training? Take short courses at discounted registration rates

Have expertise? Teach a short course or develop some educational or technical resources

Career Services

Connect with skilled job seekers and top companies in physics, engineering, vacuum science, and technology. AVS offers members free access to the online career center where you can post or review resumes or participate at our annual Career Center held during the International Symposium and Exhibition.

Educational Outreach

AVS promotes communication, dissemination of knowledge, recommended practices, research, and education in a broad range of technologically relevant topics.

Short courses provide training for technicians, scientists, and engineers in three broad categories: Vacuum and Equipment Technology; Materials and Interface Characterization; and Materials Processing. Courses are scheduled regionally throughout the year or can be customized and taught onsite at your facility. AVS members are entitled to reduced registration fees.

AVS develops, publishes, and distributes a wide range of educational products that can be purchased in the AVS Online Store—technical monographs, books, videos, and DVDs.



Awards & Honors

Recognition of outstanding scientific research and technological innovation is one of the most important activities within AVS. Through our prestigious awards program, the Society seeks to honor a wide range of extraordinary member accomplishments vital to progress in fields of interest to AVS.

Gain Recognition

Nominate your colleagues for outstanding research contributions or be recognized yourself



Professional Awards

Nominations Due: March 31

Medard W. Welch Award- recognizes and encourages outstanding research in the fields of interest to AVS.

Gaede-Langmuir Award- recognizes and encourages outstanding discoveries and inventions in the sciences and technologies of interest to AVS.

Albert Nerken Award- recognizes outstanding contributions to the solution of technological problems in areas of interest to AVS.

John A. Thornton Memorial Award/Lecture- recognizes outstanding research or technological innovation in the areas of interest to AVS, with emphasis on the fields of thin films, plasma processing, and related topics.

Peter Mark Memorial Award- recognizes outstanding theoretical or experimental work by a young scientist or engineer.

George T. Hanyo Award- recognizes outstanding performance in technical support of research or development in areas of interest to AVS.

Society Honors

Fellow of the Society- recognizes members who have made sustained and outstanding technical contributions in areas of interest to AVS.

Honorary Membership- recognizes eminent service to AVS or outstanding contributions in science, engineering, or allied fields of interest to AVS.

In addition, AVS offers other special Society awards.

Student Awards

Nominations Due: May 2

Dorothy M. and Earl S. Hoffman Award- recognizes and encourages excellence in graduate studies in the sciences and technologies of interest to AVS.

Nellie Yeoh Whetten Award- recognizes and encourages excellence by women in graduate studies in the sciences and technologies of interest to AVS.

Russell & Sigurd Varian Award- recognizes and encourages excellence in continuing graduate studies in the sciences and technologies of interest to AVS.


Dorothy M. and Earl S. Hoffman Scholarship- recognizes and encourages excellence in continuing graduate studies in the sciences and technologies of interest to AVS.

Graduate Research Award (GRA)- recognizes and encourages excellence in graduate studies in the sciences and technologies of interest to AVS.

Division & Technical Group Awards

In addition, many AVS Divisions, Technical Groups, and Focus Topics offer professional and student awards annually at the AVS International Symposium and Exhibition.





“As a student member, AVS has given me the opportunity to present my work at the local and national level, meet some great contacts, and develop the skills I need to be successful.”

Peter Palomaki, Ph.D. Candidate,
Rensselaer Polytechnic Institute

“The AVS International Symposium is one of the best scientific conferences I’ve attended. It’s a manageable size, presents cutting-edge science and technology, and brings together colleagues from multiple disciplines and from academia, government, and industry. I always come home with new ideas—and a shirt from the 5k run.”

Roger Tobin, Tufts University

“The membership of AVS is highly multidisciplinary. Being a part of the Society has broadened both my technical knowledge and professional network. I would not be in my current position without the contacts I made in AVS.”

Susan B. Sinnott, University of Florida
(AVS Board of Directors and Program Chair)