

**BYLAWS OF  
THE NANOSCALE SCIENCE AND TECHNOLOGY DIVISION  
OF THE AMERICAN VACUUM SOCIETY**

**ARTICLE I: Name**

Section 1. The organization shall be known as the Nanoscale Science and Technology Division (NSTD) - hereinafter referred to as “the Division” - of the American Vacuum Society, hereinafter designated as AVS.

**ARTICLE II: Objectives**

Section 1. The objectives of the Division shall be:

- (1) to provide a continuing forum for the discussion of the science and technology of nano-scale assemblies and structures that exploit the unique properties of low dimension and size;
- (2) to provide a continuing forum which fosters technology transfer involving nanometer scale phenomena;
- (3) to promote the dissemination of knowledge and development in these areas by the organization of conferences, symposia and workshops, and by publication of original works and surveys or reviews in proceedings, technical journals and books, electronic media, and by creation of web-site(s) related to the field;
- (4) to work collaboratively with the other AVS Divisions, focus topics, and groups in areas of mutual interest; and
- (5) to participate actively in all phases of the AVS as presented in the AVS Constitution.

**ARTICLE III: Membership**

Section 1. Divisional members are defined as members of all categories of the AVS in good standing who have applied for membership in the Division.

Section 2. The Executive Committee of the Division may extend the courtesy of notification, Divisional publications and attendance at Divisional meetings to non-members by individual identification. None of the other rights and privileges of Divisional membership will be implied or accorded under any circumstances by this action.

Section 3. All categories of Members of AVS who are members of this Division shall be entitled to attend business meetings and vote. Student members of the AVS shall be entitled to the rights and privileges of all other AVS members but shall not have the right to hold office.

**ARTICLE IV: Officers**

Section 1. The officers of the Division shall be:

- Chair-Elect
- Chair
- Past Chair
- Secretary
- Treasurer

Section 2. The officers of the Division shall hold office for the following terms:

- Chair-Elect 1 year
- Chair 1 year
- Past Chair 1 year
- Secretary 1 year
- Treasurer 1 year

The Chair-Elect shall automatically assume the position of Chair at the end of his/her term and the outgoing Chair shall become the past-Chair and shall serve as the Program Chair for the subsequent Annual Symposium as specified in Article IX. If the Chair is unable to fulfill his/her duties and obligations at any time in his/her term, then the Chair-Elect shall immediately assume the position of Chair. In the event of a simultaneous vacancy in the offices of the Chair and Chair-Elect, the Executive Committee (defined in Article V) shall appoint a Chair to fill the unexpired term. The offices of Secretary and Treasurer may be held by one person.

Section 3. The Chair-Elect, Secretary, and Treasurer will normally be elected by the Divisional members by voting by correspondence (e.g. mail, facsimile or electronic mail). In the absence of such a vote, these officers may be elected at an annual meeting of the Division. The results of this ballot shall be announced at the annual meeting of the Division.

Section 4. In the event an annual meeting is not held and no balloting by correspondence has occurred, the President of the AVS shall appoint a Chair of the Division considering the recommendations of the past Executive Committee.

Section 5. In the event that the Chair of the Division has been appointed by the President of the AVS, it is the responsibility of the Chair to appoint members of the Executive Committee, subject to the approval of the President of the AVS, considering the recommendations of the past Executive Committee.

Section 6. The term of office for the officers of the Division shall commence on January 1 in the year immediately following their election/appointment.

#### **ARTICLE V: Management**

Section 1. The management of the Division will be the responsibility of the Executive Committee of the Division. The Executive Committee shall consist of:

1. The officers of the Division as specified in Article IV, Section 1 of the Bylaws.
2. Eight duly elected members of the Division, to be called Members-at-Large of the Executive Committee.

The Members-at-Large members will be elected for two-year terms. The terms shall be staggered (four new members each year). The term of office for the eight elected Members-at-Large of the Executive Committee shall be for 2 years, commencing on January 1 immediately after their appointment.

Section 2. In the event of a vacancy in an office, other than the Chair, caused by incapacitation, resignation, or removal, the vacancy shall be filled by appointment of the Chair and approved by a majority vote of the Executive Committee. The incoming member filling a vacancy shall serve until the normal term of his or her predecessor has expired.

#### **ARTICLE VI: Nominations and Elections**

Section 1. **Nomination of Executive Committee.** The Chair shall lead the Nominating Committee, appointing at least 3 members of the Division to the committee. The Nominating Committee shall provide a slate of one or more candidates for each of the open offices of Chair-Elect, Treasurer, Secretary, and at least one candidate for each of the four annually vacated members-at-large. All candidates must be members in good standing of the Society. This proposed slate of candidates shall be presented to the AVS at least TWENTY (20) WEEKS prior to the annual business meeting of the Division, so that the online balloting can begin at least EIGHTEEN (18) WEEKS prior to the annual business meeting. Ballots will remain open for FOUR (4) weeks. The votes shall be tallied and announcement of the new committee will be sent to the election winners at least TWELVE (12) WEEKS prior to the annual business meeting. In as far as possible, nominees shall be chosen to represent the technical and geographic distribution within the Division, while considering diversity.

Section 2: **Nominations by Petition.** Additional nominations may be generated by petitions signed by at least 1% of the voting members of record and submitted to the Chair. Such petitions shall be in the possession of the Chair at least ONE WEEK prior to the required date of submission to the AVS management. Nominations by petition will be distributed to the membership along with the regular ballot according to the standard AVS protocol.

Section 3: **Election of the Executive Committee members** shall be filled by plurality vote. For the four member-at-large positions, the candidates with the most votes shall be chosen. In the event of a tie for any position including officers or members-at-large, the chair will poll the Executive committee to decide between the candidates.

#### **ARTICLE VII: Duties of the Officers and Executive Committee Members**

Section 1. **Chair** - To represent the Division in all interactions with AVS management and other divisions; to preside at all business meetings of the Division; at his/her discretion to serve as a member of any committee of the Division; to submit to the Board of Directors of the AVS an annual report concerning the activities of the Division; to appoint chairs of all necessary Standing Committees; to appoint Special Committees; to authorize expenditures as provided in the budget; to announce and run the Annual Business Meeting of the Division, and to perform such other functions necessary of a chair of an organization.

Section 2. **Chair-Elect** - To carry on all duties of the Chair in the event of the Chair's absence, illness, resignation, or incapacity, to chair the Awards Committee, and to carry out such other duties as may be assigned by the Chair.

Section 3. **Past Chair** – To serve as Program Chair for the annual AVS Symposium occurring during the year of his/her tenure.

Section 4. **Secretary** - The Secretary shall maintain a list of all members in good standing as provided by the AVS. The Secretary shall be responsible for the minutes of all Divisional Executive Committee and Annual Business Meetings. The Secretary shall direct mailing and receipt of all literature pertaining to the operation of the Division at the discretion of the Chair. In case of temporary incapacity of the Chair and Chair-Elect, the Secretary shall assume the duties of the Chair. The Secretary shall perform such other duties as may be assigned by the Chair.

Section 5. **Treasurer** - The Treasurer shall keep a strict accounting of all income and expenditures. The Treasurer may pay out such funds as authorized by the Chair or Executive Committee to meet all obligations of the Division. The Treasurer shall issue a report of the financial standing of the Division at the Annual Business Meeting or whenever requested by the Chair. The Treasurer may be bonded at the expense of the Division. The Treasurer will file an annual Divisional Financial Report in cooperation with the AVS Treasurer on or before the date and in the format established by the AVS Treasurer. The Treasurer shall perform such other duties as may be assigned by the Chair.

Section 6. **Members of the Executive Committee** shall act as representatives of the Division membership in matters pertaining to the objectives of the Division, meetings, dues, organization, policy, and such other matters that preserve the integrity of the Division and make it responsive to the needs and wishes of its membership.

#### **ARTICLE VIII: Procedures for Executive Committee**

Section 1. The Executive Committee shall meet during the International Symposium of the AVS. Additional meetings may be held at such times as necessary and may be called by the Chair of the Division or at the request of three Committee members. Such meetings could be face-to-face or electronically enabled (e.g., video conference).

Section 2. A majority of the voting members of the Executive Committee shall constitute a quorum at its meetings.

Section 3. A majority vote of the Executive Committee members present shall be necessary to transact business, except as otherwise provided in these Bylaws. The annual Divisional budget and all motions must be approved by a majority of the Executive Committee.

Section 4. Non-budgeted items, such as registration waivers for invited speakers, may be approved by joint agreement between the past-Chair (Program Chair) and Treasurer provided: i) an individual expense does not exceed \$1000, ii) the total non-budgeted expenses for the year do not exceed \$5000, and iii) there are sufficient funds in the Division's reserve to cover both the unbudgeted and annual budgeted expenses. Non-budgeted items that do not meet these requirements must be approved by a majority of the Executive Committee.

Section 5. The minutes of all meetings and financial reports of the Executive Committee shall be filed as requested with the Clerk of the AVS. All budgets and financial reports required by the AVS Board of Directors shall be submitted in a timely manner.

Section 6. The Executive Committee will provide management oversight for the conduct of conferences, workshops, and meetings sponsored by the Division.

Section 7. The Executive Committee may conduct business, if necessary, by telephone or by e-mail between meetings. A majority vote of all Committee members shall be required to transact business by tele-phone or by e-mail. Any telephone or e-mail ballot must be confirmed at the next Executive Committee meeting.

#### **ARTICLE IX: Committees**

Section 1. Standing Committees – There shall be the following Standing Committees:

1.1 **Program committee:** The purpose of the Program Committee is to coordinate and organize Division sessions and jointly sponsored sessions at AVS Symposia, and any other sessions or symposia as authorized by the Executive Committee. The members of the Program Committee will consist of the Past Chair who serves as its chair, the current members of the Executive Committee, and additional members selected by the Program Chair from the Division members in good standing.

1.2 **Nominations Committee:** The Nominations Committee will be governed as described in Article VI, Section 1 of the Bylaws.

1.3 **Publicity/Newsletter/Website(PNW)Committee:**ThepurposeofthePNWCommitteeistopublicizeDivision activities by a variety of means including maintaining an updated Divisional web site. It shall consist of the Secretary who shall serve as Chair of the PNW Committee and at least two other Division members.

1.4 **Awards Committee:** The purpose of the Awards Committee is to solicit and coordinate submissions of nominations for AVS Fellow and other AVS Awards or Prizes, and to administer the Division awards, including the Nanotechnology Recognition Award, Graduate Student Competition, Early Career Competition, and any other awards the Division shall be authorized to offer. The Awards Committee shall consist of the Chair-Elect, who will serve as its Chair, and two other members of the Executive Committee appointed by the Chair-Elect.

Section 2. **Special Committees:** The Chair will appoint special committees as the need arises.

Section 3. **General:** Each committee chair shall select as many members of his/her committee as needed with the concurrence of the Chair of the Executive Committee except as noted in Section 1. Committee members shall serve for one year and be members of the Division in good standing. Upon request of the Division Chair, each committee shall file with the Executive Committee a report of its activities. It shall be the duty of each of the committees to recommend actions deemed advisable by the committee members regarding their subject area to the Executive Committee. A tentative budget shall be submitted by the special committee Chair to the Executive Committee for approval. Expenses incurred by the special committee shall be limited to the budgeted amount, or as approved by a majority of the Division's Officers, according to Article VIII, Section 4.

#### **ARTICLE X: Finances**

Section 1. Dues may be established by the Executive Committee with the approval of the Board of Directors of the AVS. Changes in the membership dues shall be recommended by the Executive Committee and approved by a majority of the voting members of the Division by a ballot. Special symposia registration fees may be set by the Executive Committee as needed.

Section 2. The Divisional financial records or ledger books may be reviewed by an auditor at any time if re-quested by the Executive Committee.

Section 3. All funds received by the Division shall be deposited in an account approved by the AVS management. The signature and approval of either the Treasurer or the Chair or written approval by either for expenses associated with specific activities shall be required for all withdrawals from this account.

Section 4. The financial year of the Division will coincide with the financial year of the AVS.

#### **ARTICLE XI: Business Meetings**

Section 1. The Division shall hold at least one regular business meeting each year. This Annual Business Meeting, which may be held during an AVS Symposium, shall be announced by correspondence to all Members of the Division at least FOUR (4) WEEKS prior to the meeting, and/or it will be announced in the program for the AVS symposium. Time and location of all meetings shall be determined by the Executive Committee.

Section 2. The number of members present to constitute a quorum at business meetings of the Division calling for the transaction of regular business and requiring a vote to be taken shall be not less than 1% of the Division membership or ten (10) members, whichever is smaller.

#### **ARTICLE XII: Conferences, Symposia, and Workshops**

Section 1. The Division may sponsor various conferences, symposia, and workshops in addition to organizing a program at AVS Symposia. Approval to sponsor such meetings must be by majority vote of the Executive Committee. If the Division is the sole or principal sponsor of a meeting, then the Executive Committee shall be responsible for financial management of the meeting and shall appoint the General and/or Program Chair for such meetings. The

General Chair shall submit a budget for approval by the Executive Committee. No expenditures in excess of the budgeted amount may be made without approval of the Executive Committee.

Section 2. The Division may enter into contracts with individuals or companies for the execution of certain activities associated with conferences, symposia, or workshops. Examples include the conference administrator and local arrangements coordinator and the publishing of the proceedings from the meetings. Such contracts must be approved by a majority of the Executive Committee, approved by the AVS management, and shall not be for a duration longer than three years.

### **ARTICLE XIII: Awards of the Division**

These awards are administered by the NSTD Awards Committee. The Committee consists of the Chair-Elect plus two members of the Division Executive Committee appointed by the Chair. This committee will be chaired by the Chair-Elect and will work with the AVS National Office to announce open Awards with a formal call for nominations and accept nominations.

Section 1. **Student Travel Awards** – The Division may grant Student Travel Awards to financially assist students to attend the AVS Symposia and other conferences, symposia, and workshops sponsored by the Division. The monetary amount of each award and the selection criteria for the awards will be determined by the Executive Committee and in accordance with the limits established by the AVS Board of Directors.

Section 2. **Graduate Student Competition** – The Division may give an award to the graduate student with the best paper or poster presented in one of the Division sponsored or co-sponsored sessions at the AVS International Symposium. To be considered, students must submit a copy of the submitted abstract, the CV, and a recommendation letter from the student's advisor. *The candidate must be enrolled in a PhD program at the time of abstract submission.* Finalists are selected by the awards committee from eligible submissions and the finalists are asked to present five-minute talks in an open finalists' session. Once these have been completed, the winner is selected by a vote by the members of the Executive Committee who were present at the talks in a closed-door session.

Section 3. **Early Career Competition** – The Division may give an award to the early career researcher with the best paper or poster presented in one of the Division sponsored or co-sponsored sessions at the AVS International Symposia. To be considered, researchers must submit a copy of the submitted abstract, CV, a recommendation letter from their doctoral advisor, and a recommendation letter from their postdoctoral advisor or current supervisor. In order to be eligible, the researcher must be the presenting author in an accepted talk or poster in one of the Division sponsored or co-sponsored sessions. *The candidate must be within five years of receiving their PhD at the time of abstract submission.* Finalists are selected by the awards committee from eligible submissions and the finalists are asked to present five-minute talks in an open finalists' session. Once these have been completed, the winner is selected by a vote of the members of the Executive Committee who were present at the talks in a closed-door session.

#### **Section 4. Nanotechnology Recognition Award**

4.1. **Purpose:** To recognize Scientists and Technologists who have made outstanding scientific and technical contributions in the science of nanometer-scale structures; technology transfer involving nanometer-scale structures; and/or the promotion and dissemination of knowledge and development in these areas.

4.2. **Eligibility:** The awardee must be recognized for scientific and technical contributions that are fostered and encouraged by the Division. These areas are those evidenced in the programs of symposia sponsored by AVS, topical conferences sponsored by the Division, and in the Division Bylaws. The contributions must be significant advances in theoretical or experimental discovery, understanding, inventions, measurements, technique development, and/or technical management. The contribution may be for a body of work sustained over several years or a single advancement. Nomination should be made by colleagues or others who are well acquainted with the nominee. Self-nominations are not acceptable. The Division Officers, members of the AVS Board of Directors and Trustees and members of the Division Award Selection Committee are not eligible for the Award during their terms in office.

4.3. **Nature of the Award:** The Award is given annually at the discretion of the Division Awards Committee. The award consists of a certificate (or other appropriate symbol) identifying the award and a monetary cash prize, which shall not exceed the limit established by the Executive Committee in the Division Technical Recognition Awards Protocol, and that established by the AVS Board of Directors. The amount may be adjusted at the discretion of the

AVS and the Division Executive Committee. The Award will be presented at the AVS International Symposium. Travel support to attend the Symposium will also be made available through the Division upon request.

**4.4. Procedures:** The Awards Committee will handle the logistics and selection of the awardees. The recommendation from the Awards Committee will be announced to the Division Chair and Officers for their approval. Once complete, the Awards Chair will notify the Awardee after approval by the Division Chair and Officers.

A completed nomination must include the following components.

**Nomination Letter.** The nominating letter must describe the work for which the award is proposed and indicate the significance of the work in solving specific scientific or technological problems. The significance of these problems and the impact of the nominee's accomplishments on the field should be discussed. If the work was performed in

collaboration with others, the contributions of the nominee should be clearly stated. A list of individuals sending supporting letters must also be included, together with a proposed citation, i.e. a one-sentence synopsis of the reason for selecting the nominee. The nominating letter should not exceed three pages in length, but it must be sufficiently detailed to allow evaluation of the nominee's contributions.

**Biographical Materials.** A Curriculum Vitae or biographical sketch of the nominee and a list of publications and patents must be provided.

**Supporting Letters.** A minimum of two and a maximum of five supporting letters must be arranged by the nominator. They should not exceed three pages. Their main purpose is to endorse the nomination and to provide additional evidence of the nominee's accomplishments.

Each year the Award shall be announced by any means deemed appropriate by the Division Awards Committee. These announcements shall include: (1) A statement of the Award and its purpose. (2) A statement that Award consists of a cash prize plus a certificate and that travel support is available to the recipient. The amount of the Award shall be specified. (3) The nomination deadline of July 20, and nomination instructions. (4) The Award presentation date and location.

**4.5. Changes:** Any change of name or nature of this award must be approved by the Division Awards Committee. The Division Awards Committee will also consult with the AVS Board of Directors for guidance. The award funds must be clearly identified in the annual Division budget. Acceptance of external funds for the award can be implemented only after consultation with and approval by the AVS Treasurer, ensuring conformity with the rules that govern 501(c)(3) organizations.

#### **ARTICLE XIV: Termination of Membership**

Section 1. All interest of any member in the Division or in its property or funds shall terminate and vest in the Division upon his or her ceasing to be a member whether by death, resignation, or otherwise.

#### **ARTICLE XV: Dissolution of the Division**

Section 1. At any time when the Division shall become inactive, not holding at least one meeting in a two year period, it shall be deemed to have ceased to exist unless such non-holding of meetings has been due to national emergency, actions of federal or state government, or other factors beyond the control of the Division. Upon such a condition arising, all funds remaining in the treasury of the Division shall revert to the AVS and become part of its general funds.

#### **ARTICLE XVI: Amendments**

Section 1. Any proposal to amend these Bylaws shall be made in writing, signed by at least ten members of the Division and submitted to the Secretary of the Division. The Secretary will solicit comment from the Division Executive Committee and the AVS Governance Committee. Once approved by AVS Governance and by two-thirds of the Executive Committee, proposed amendments will be sent to the AVS Board of Directors for approval. If amendments are approved by the AVS Board of Directors, they will be sent to the general membership of the Division for final approval and implementation. Final approval of the amendments shall require a vote of consent from at least

two-thirds of the members in good standing. Amendment proposals shall be distributed by the AVS during administration of regular elections and include an explanation for the proposed amendments. Normal elections protocols implemented by the AVS shall govern the distribution, collection, and tallying of the ballots.

**ARTICLE XVII: Parliamentary Law and Procedure**

Any matter of parliamentary law or procedure not specifically provided for in these Bylaws shall be governed by Robert's Rules of Order as published in the last revised edition.

**Approvals:**

*NSTD Executive Committee: April 2021*

*AVS Governance Committee: May 2021*

*AVS Board of Directors: June 2021*

*AVS NSTD Membership: August 2021*