



## THE NUKIYAMA MEMORIAL AWARD

The Heat Transfer Society of Japan is responsible for the following Charter for establishing the Nukiyama Memorial Award and the Board of the Nukiyama Memorial Award, preparing the policies governing the Award and delegating the authority to adopt and amend the Rules-of-Procedure to carry out the Charter provisions. The Society may terminate the Award at any time by the consent of the Executive Board of the Heat Transfer Society of Japan. The decision to grant the Nukiyama Memorial Award was made by the Executive Board of the Heat Transfer Society of Japan on April 23, 2011.

### CHARTER

#### Purpose of the Award

The Award has been established by the Heat Transfer Society of Japan to commemorate the land-mark contributions by Shiro Nukiyama as an outstanding heat transfer scientist. Nukiyama addressed the challenges of the boiling phenomena and published an epoch-making paper which provided an overview of the phenomena in the form of the Nukiyama curve (boiling curve). This pioneering work was done in the 1930s, when heat transfer research was in its infancy and Nukiyama himself was young: still under forty years old.

The Nukiyama Memorial Award shall be bestowed every two years to a scientist who meets the qualifications set forth in this Charter and who is selected by the Board of the Nukiyama Memorial Award as further specified in this Charter. Every two years, one award may be bestowed to a scientist, preferably under 50 years of age, in the field of Thermal Science and Engineering. The Award shall be bestowed only when at least one candidate is judged to have made sufficiently outstanding contributions to be worthy of the Award.

#### Qualifications of the Recipient and the Basis for the Award

The Award shall be bestowed for outstanding scientific and engineering contributions and eminent achievements in the field of Thermal Science and Engineering. These contributions and achievements should yield a deeper insight into the relevant phenomena or should yield significant technological advances. In addition to research, the recipient should have made outstanding contributions to the field through teaching, design or a combination of such activities. The Award is based on achievement through publications in the field of Thermal Science and Engineering, or achievement through the application of Thermal Science and Engineering.

#### Award Board

The Award shall be selected and administered by the Board of the Nukiyama Memorial Award (hereafter the Award Board) which is composed of worldwide members from the Thermal Science and Engineering community. The total number of members (including the Chairperson and Vice-Chairperson of this board) shall normally be seven, with not more than three members from one country. The Chairperson of the Award Board shall be elected by the Executive Board of the Heat Transfer Society of Japan. The other members of this board including the Vice-Chairperson shall be elected by the Executive Board of the Heat Transfer Society of Japan together with the Chairperson of the Award Board. About one-half of the board membership shall be elected every two fiscal years of the Heat Transfer Society of Japan.<sup>1</sup> In the subsequent term (one term is two

---

<sup>1</sup> A fiscal year of the Heat Transfer Society of Japan starts from the first day of April and ends at the last day of March.

consecutive years), the Vice-Chairperson of this board shall assume the Chairpersonship, and a new Vice-Chairperson shall be elected from the members of this board by the Executive Board of the Heat Transfer Society of Japan together with the Chairperson of this board. Thus, in normal circumstances, the Chairperson of the Award Board will have previously served as a Vice-Chairperson thus preserving the continuity; the other members of the Award Board may serve for two terms. The Officers of the Award Board after three terms and the members after two terms cannot ever be reelected to the Award Board.

If the Chairperson resigns, the Vice-Chairperson shall become a Chairperson, and a new Vice-Chairperson shall be appointed from the members of the Award Board by the Executive Board of the Heat Transfer Society of Japan and a new member shall be appointed by the Executive Board of the Heat Transfer Society of Japan. If the Vice-Chairperson resigns, a new Vice-Chairperson shall be appointed in the same way and a new member shall be appointed by the Executive Board of the Heat Transfer Society of Japan. If a member resigns, the Executive Board of the Heat Transfer Society of Japan shall designate a replacement member on the Award Board.

### **Nominations**

All nominations for the Award shall be third party nominations, i.e., self nominations shall not be accepted. Members of the professional community at large are eligible as well as members and officers of the Heat Transfer Society of Japan.

A person who nominates an individual shall furnish a completed nomination form along with five reference letters from professionals of at least two different countries who are familiar with the contributions of the nominee. Nominations shall be valid for consideration by the Award Board for two consecutive terms after receipt of the nomination. The nomination material may be updated if the nominee is still eligible for the subsequent term by the person who presented the nomination. Candidates may be nominated again by the same or another person after having been considered by the Award Board for two consecutive terms.

The Award Board may reject nominations that do not provide all the requested information or may return the nomination to the person presenting the nomination for completion or additional information.

All nomination material shall be reviewed by both the Chairperson and Vice-Chairperson for completeness and legitimacy, and shall be mailed by the Chairperson to each member of the Award Board within six weeks after the closing date of the nomination.

### **The Award**

The Award shall consist of a plaque, an engrossed certificate and an honorarium of 500,000 Japanese Yen. The Award recipient shall be required to prepare a written state-of-the-art review paper and present a lecture at a conference (or a symposium) dealing with the field of Thermal Science and Engineering for which the Award is bestowed. This review will be published as further established by this Charter. The Heat Transfer Society of Japan shall not pay any expenses to the recipient for travel and subsistence incurred in receiving the Award. If the recipient prefers payment of the honorarium towards travel expenses, the recipient shall so inform the Chairperson of the Award Board in his/her acceptance letter. The Vice-President (General Affairs) of the Heat Transfer Society of Japan shall arrange for these travel expenses.

The award certificate and the plaque shall be signed by the Chairperson of the Award Board and by the President of the Heat Transfer Society of Japan.

### **The Award Lecture and Published Review**

The written state-of-the-art review paper shall be presented as a special lecture at a conference (or a symposium) in which the recipient receives the Award. The written review required from the recipient shall be a critical and state-of-the-art review of the subject selected by the recipient. The review shall be published in the journal of *Thermal Science and Engineering*.

### **Selection of Recipient**

The Award Board shall select a recipient from among those candidates whose nominations meet the above requirements. Nationality, gender, or society membership shall not be considered when evaluating the qualifications of candidates. A candidate must be alive at the time of designation as a recipient of the Award. A posthumous award shall be bestowed only if the candidate signified acceptance before death.

The Award Board may vote to decline to make an Award in any term if, in the judgment of the Award Board, no nominee meets the requirements of the Award.

Selection of the Award recipient shall normally be by a letter ballot initiated by the Chairperson, unless the Chairperson and a quorum desire a meeting. The members of the Award Board shall award marks to all candidates on a scale from 0 to 100 such that a mark of 70 is taken as the minimum required for the grant of the Award. The Chairperson shall tally both the votes awarded to each candidate and his/her ranking position. One award recipient may be selected provided that

- At least five members of the Award Board rank the nominee eligible for the Award (by awarding him/her marks of 70 or above).

The Chairperson shall contact the board members to convey the results of the ballot and to place before them a clear-cut choice in confirming the candidate to receive the Award.

The selection and notification of the recipient shall proceed in a prompt and timely manner. The Chairperson of the Award Board shall inform the recipient of the Award. If the recipient declines the Award, another ballot shall be conducted.

### **Award Board Meetings**

The Chairperson may set up a meeting date and location and inform members for a meeting. A written commitment of attending a meeting is desired from the members of the Award Board. Other meetings may be called by a majority of the Award Board members. A simple majority of the Award Board members shall constitute a quorum for conducting all business of the Award Board except for the selection of a recipient of the Award as specified above.

### **The Award Funds**

The Heat Transfer Society of Japan shall establish the Award Funds and solicit sponsors, keep custody of funds, and administer the funds as supervised by the Award Board.

### **Charter Revisions**

The Award Board can recommend or propose revisions to the Charter. Revisions to this Charter must be approved by the Executive Board of Heat Transfer Society of Japan. The Executive Board of Heat Transfer Society of Japan may propose Charter revisions which must then be accepted by the Award Board. The Award Board shall coordinate and expedite all proposed revisions to the Charter.

### **Rules of Procedure**

The attached Rules of Procedure govern details of operation of the Award Board. The Award Board shall adopt, amend, or revise Rules of Procedure by a majority vote, in consonance with this Charter and by the consent of the Executive Board of the Heat Transfer Society of Japan.

## **RULES OF PROCEDURE**

## **Nominations for the Award**

A special form shall be provided for nomination of candidates for the Award. The form shall request the information required for nomination, and provide the addresses, fax numbers and e-mail addresses of both the nominee and the person presenting the nomination. A form is included with these Rules of Procedure. The form may be modified by a majority vote of the Award Board, but must include the information required by this Charter.

Nominations may be solicited by the Award Board by any means the Award Board decides including but not limited to those from past recipients of the Award, current and past members of the Award Board, members and officers of the Heat Transfer Society of Japan, leading scientists of conferences and symposia, and individuals from the professional community at large. Nominations may also be solicited by publication of Calls for Nominations in professional journals. The Award Board may also solicit nominations from appropriate professional societies in various countries.

All nominations received by the Chairperson shall be checked for completeness and legitimacy by both the Chairperson and Vice-Chairperson independently. For this purpose, the Chairperson will send a copy of all nominations received to the Vice-Chairperson within two weeks.

## **Selection of Recipient**

Selection of the Award recipient shall normally be by a letter ballot initiated by the Chairperson, unless the Chairperson and a quorum desire a meeting. The Award Board members shall award marks to all candidates on a scale from 0 to 100 such that a mark of 70 is taken as the minimum required for the grant of the Award. The Chairperson shall tally both the votes awarded to each candidate and his/her ranking position. One recipient may be nominated provided that

- At least five members of the Award Board rank the candidate eligible for the Award (by awarding him/her marks of 70 or above).

Letter ballots must be received from all Award Board members. Ballots are to be returned no later than three weeks after the stamped date on the mail.

If a meeting is held in place of a letter ballot, an Award Board member who will not be present at an Award Board meeting should advise the Chairperson, in advance of the meeting, marks allocated to all candidates. These marks should be used in selecting the candidates.

## **Presentation of the Award**

The Award shall be presented at a conference (or a symposium) by the President of the Heat Transfer Society of Japan. The Chairperson of the Award Board or his/her designee shall introduce the Award recipient when the Award Lecture is delivered.

The Chairperson of the Award Board, at the time a recipient is selected, shall be responsible for making arrangements for the bestowal ceremony for the Award.

## **Award Brochure**

An Award Brochure shall be available to those attending the Award Bestowal Ceremony. The Award Brochure shall include a description of the Award, biographical information about Shiro Nukiyama, biographical information about the recipient, a list of previous recipients, a list of the members of the Award Board at the time the recipient was selected, and a citation prepared for the recipient; this citation shall be based on the citation information provided in the nomination. The Award Brochure shall also acknowledge any financial sponsors of the Award. Information for the Award Brochure shall be assembled by the Chairperson of the Award Board.

## **Records**

The records and minutes of the Award Board shall be confidential to the members of the Award Board. Nominations for the Award shall also be confidential to the members of the Award Board. The only exception

shall be that the Vice-President (General Affairs) of the Heat Transfer Society of Japan shall be sent all correspondence for the selected and rejected nominees and the minutes of the Award Board meeting. The Vice-President (General Affairs) of the Heat Transfer Society of Japan shall maintain all information in strict confidence.

The Chairperson shall maintain a complete set of all appropriate documents of the Award Board and records of all bestowal ceremonies. At the expiration of his/her term, he/she shall turn over records to the new Chairperson as well as send a copy to the Vice-President (General Affairs) of the Heat Transfer Society of Japan.

### **Award Administration**

The Vice-Chairperson shall be responsible for administration of the Award with approval of the Award Board. The Vice-Chairperson shall arrange for the preparation of the Award Plaque, obtain all signatures required on the Award Certificate, arrange for the Award Certificate to be suitably framed, have the Award Brochure printed, and notify the Vice-President (General Affairs) of the Heat Transfer Society of Japan to provide the honorarium check in good time before the conference (or the symposium) at which the presentation will take place. The Vice-Chairperson shall also remind the Vice-President (General Affairs) of the Heat Transfer Society of Japan when contributions for the awards are due from outside sponsors.

The Chairperson of the Award Board shall ensure that new members of the Award Board are appointed by the Executive Board of the Heat Transfer Society of Japan as provided by this Charter and that new members receive all communications necessary to conduct the business of the Award Board.

### **Referral of Nominations**

Nominations shall be referred from one term to another as established by this Charter. The Chairperson of the Award Board shall notify each person (who submitted a nomination for two terms) of the disposition of the nomination after the recipient for the term has been designated. The Chairperson of the Award Board shall request each person (who submitted a nomination for one term) to update the nomination material if the nominee is still eligible for the subsequent term.

### **Duties of the Chairperson**

- Publicize the Call for Nominations; the Vice-President (General Affairs) of the Heat Transfer Society of Japan may assist the Chairperson with this publicity.
- Furnish the nomination material whenever requested.
- Receive all nominations.
- Send a copy of all nominations received to the Vice-Chairperson within two weeks for an independent review on completeness and legitimacy. The Chairperson shall also review all nominations for completeness and legitimacy.
- If appropriate, set up an Award Board meeting, notifying the members and deciding on whether or not there is a quorum.
- Preside over any meeting of the Award Board.
- Send the letter ballots to the members of the Award Board, receive the completed ballots, tally the marks received, communicate as necessary, and decide on the award recipient.
- Notify the recipient and request him/her to prepare a state-of-the-art review paper.

- Introduce the Award recipient at the time when the Award Lecture is delivered at a conference (or a symposium).
- Be responsible for the bestowal ceremony of the Award, including assembling all information for the Award Brochure.
- Notify senders of all unsuccessful nominees and ask them for an update on the nominee qualifications if the nominee is still eligible for the subsequent term.
- Ensure that new members of the Award Board are appointed in a timely manner and furnish them necessary information to conduct the business of the Award Board.
- Keep records of all meetings of the Award Board and records of all Bestowal Ceremonies
- Turn over a complete set of records to the Vice-President (General Affairs) of the Heat Transfer Society of Japan upon the expiration of his/her term.

#### **Duties of the Vice-Chairperson**

- Shall earn the Chairpersonship by fulfilling the following duties and shall become the Chairperson of the Board for the subsequent term.
- Be responsible for coordinating the nomination procedure. The Vice-Chairperson must ensure the completeness and legitimacy of all nominations received from the Chairperson and inform the Chairperson of his/her findings within three weeks of the receipt of the material.
- Be responsible for tallying marks for the selection of the recipient at the Award Board meeting, if held.
- Be responsible for the administration of the Award that includes having the Award Plaque made, obtaining all necessary signatures on the Award Certificate, framing of the Award Certificate, printing of the Award Brochure, and notifying the Vice-President (General Affairs) of the Heat Transfer Society of Japan to prepare the honorarium check in time.
- Shall also remind the Vice-President (General Affairs) of the Heat Transfer Society of Japan to obtain contributions from outside sponsors in a timely manner. The Vice-President (General Affairs) of the Heat Transfer Society of Japan may assist as necessary in all details of the administration of the Award.

#### **Revisions of Rules of Procedure**

These Rules of Procedure may be amended or revised by the consent of the Executive Board of the Heat Transfer Society of Japan.

This package has been prepared by the Executive Board of the Heat Transfer Society of Japan on April 23, 2011.