ARRANGEMENT

between

THE UNITED STATES DEPARTMENT OF ENERGY

and

THE INSTITUTE FOR SOLID STATE PHYSICS, UNIVERSITY OF TOKYO

on

COOPERATION IN RESEARCH IN THE AREA OF NEUTRON SCATTERING

WHEREAS, the Government of the United States of America and the Government of Japan have signed an Agreement on Cooperation in Research and Development in Science and Technology on May 1, 1980, hereinafter referred to as "the S&T Agreement"; and

WHEREAS, Article III of the S&T Agreement provides that implementing arrangements setting forth the details and procedures of specific cooperative activities may be made between the appropriate agencies of the two Governments; and

WHEREAS, scientists from the U.S. and Japan met in Honolulu in June 1980 and reached consensus on the scientific aspects of a U.S.-Japan Cooperative Neutron Scattering Program including the description of new instrumentation to be constructed for use in the program, and the scientists have continued their interactions since then; and

WHEREAS, on February 9, 1983, the U.S. Department of Energy (DOE) and the Monbusho of Japan agreed on an Implementing Arrangement between them concerning joint research in neutron scattering, hereinafter referred to as the "DOE/MONBUSHO Arrangement in Neutron Scattering" in which the Institute for Solid State Physics, University of Tokyo (ISSP) has been designated as the executing institute on the Japanese side for carrying out the Monbusho portion of the U.S.-Japan Cooperative Neutron Scattering Program.

Now, therefore, the United States Department of Energy (DOE) and the Institute for Solid State Physics, University of Tokyo (ISSP), hereinafter referred to as "the Parties," wish to conclude the following Arrangement.

ARTICLE I - OBJECTIVE

The objective of the cooperation is to establish a joint

basic research program in the area of neutron scattering involving scientists from various research installations in Japan and scientists and facilities located at the Brookhaven National Laboratory (BNL), a DOE-owned facility operated for DOE by Associated Universities, Inc. (AUI), and at Oak Ridge National Laboratory (ORNL), a DOE-owned facility operated for DOE by Union Carbide Corporation, Nuclear Division (UCCND). This Arrangement applies only to cooperation between ISSP and DOE taking place at BNL and ORNL in furtherance of the U.S.-Japan Cooperative Neutron Scattering Program.

ARTICLE II - SCOPE

- An advanced Polarized Neutron Spectrometer shall be installed at the High Flux Beam Reactor (HFBR) at BNL, and a Very Low Temperature Device, a Low Temperature High Pressure Device, and a High Temperature Device shall be installed at the High Flux Isotope Reactor (HFIR) at ORNL. These four devices, owned by ISSP, shall hereinafter be referred to "ISSP Equipment," and each of these collectively as the devices owned by ISSP shall hereinafter be referred to as an "item of ISSP Equipment." The Parties shall singly responsibilities of maintaining this ISSP share the Equipment for the duration of this Arrangement.
- 2. The design, construction, and installation of the ISSP Equipment shall be the subject of separate arrangements between ISSP and AUI (for BNL), and between ISSP and UCCND (for ORNL), subject to DOE approval.
- 3. Additional items of major equipment or instrumentation, such as special sample holders or cryostats, may be provided by either Party, without amending this Arrangement, when agreed by the Steering Committee.
- 4. The Parties shall conduct a joint DOE-ISSP basic research program in the area of neutron scattering at the BNL HFBR and at the ORNL HFIR, centering on but not limited to the use of ISSP Equipment, hereinafter referred to as "the Program." The Parties may initiate the Program prior to completion of installation of the ISSP Equipment.
- 5. DOE shall provide ISSP with access to DOE-owned spectrometers at BNL HFBR at no cost to ISSP, not to exceed the equivalency of one-half time per year on one spectrometer, and DOE shall also provide ISSP with access to DOE-owned spectrometers at ORNL HFIR at no cost to ISSP, not to exceed the equivalency of one-quarter time per year on one spectrometer, for cooperative research under this Arrangement, including the use of DOE-owned spectrometers

for utilization of the the specialized ISSP Equipment. ISSP may, pursuant to a separate understanding between ISSP and the Japan Atomic Energy Research Institute, have access to DOE-owned spectrometers at the ORNL HFIR at no cost to ISSP, for more than one-quarter time per year on one spectrometer, provided that the total Japanese access does not exceed one-half time per year on one spectrometer.

- 6. The Program may include research in solid state physics, chemistry, biology, metallurgy, or other scientific disciplines as mutually agreed.
- 7. It is intended that the results of the Program will be published in scientific literature. Upon publication of any such results, it shall be made clear that the result was derived under the "U.S.-Japan Cooperative Neutron Scattering Program."
- 8. The implementation of the Program will be the subject of separate arrangements between ISSP and AUI (for BNL), and between ISSP and UCCND (for ORNL), subject to DOE approval.
- 9. In the event, during the term of this Arrangement, the operation of the HFBR is terminated at BNL or the operation of the HFTR is terminated at ORNL, the Parties shall consult to arrive at a mutually agreeable course of action; provided, that DOE shall make a good faith effort to relocate the ISSP Equipment and the ISSP-supported part of the U.S.-Japan Cooperative Neutron Scattering Program to other mutually acceptable sites.
- 10. DOE shall be solely responsible for the HFBR and the HFIR and all instruments associated with them that were acquired prior to the execution of or outside the scope of this Arrangement. Research activities at the HFBR and at the HFIR other than those to be carried out under this Arrangement shall be the sole responsibility of DOE.

ARTICLE III - MANAGEMENT

The Parties agree to establish a Steering Committee, the structure and functions of which are as follows:

- (a) The Steering Committee shall be composed of one member designated by each Party. Each Party shall also designate an alternate representative, who shall serve as a member of the Steering Committee should the designated representative be unable to do so. Each Party shall inform the other Party in writing of all designations under this paragraph.
- (b) Each Party shall have one vote in the Steering

Committee, and all decisions shall be by unanimity. The Steering Comittee may invite representatives of AUI and of UCCND and other advisors to meet with them, as appropriate.

- (c) The Steering Committee, annually, shall approve the budget proposal and the research program for the coming year. The Steering Committee shall reconcile the budget proposal and the new program with the actual budget as approved by each Party.
- (d) The Steering Committee shall oversee and review the implementation of the approved program of research, and resolve priority issues within the Program.
- (e) The Steering Committee shall undertake special studies and technical reviews as it deems appropriate.
- (f) The Steering Committee shall submit to DOE and ISSP an annual report, which should include an accounting of funds expended for the implementation of the Program in the previous year.
- (g) The Steering committee shall meet at a place and on a date as mutually agreed, at least once a year.
- (h) The Steering Committee may establish Research Committees as it deems necessary to implement the Program.

ARTICLE IV - FINANCE

- 1. ISSP shall fund the design, construction, and installation of the ISSP Equipment at BNL and ORNL, pursuant to separate arrangements between ISSP and AUI, and between ISSP and UCCND, subject to DOE approval.
- 2. DOE shall provide all neutrons necessary for the conduct of the Program at no cost to ISSP.
- 3. Except when otherwise mutually agreed in writing or specifically stated in this Arrangement, the Parties shall share equally all costs of the Program.
- 4. ISSP shall provide DOE a semi-annual financial contribution in U.S. dollars to cover the ISSP share of the costs, as mutually determined by the Steering Committee. This contribution shall be paid into a U.S. Treasury account designated by DOE. The payment of the contribution by ISSP shall be made on or before April 30 and October 31 of each calendar year, in accordance with procedures to be identified by DOE and in accordance with invoices signed by DOE and airmailed not later than March 31 and September 30

to an address specified by ISSP.

- 5. "All costs" means those costs incurred by AUI at BNL and by UCCND at ORNL in conducting the Program, excluding:
 - (a) use of DOE-owned spectrometers pursuant to Article II.5; and
 - (b) operating costs of HFBR and HFIR to provide neutrons for the Program; and
 - (c) the direct cost of salary and overhead for the AUI and UCCND research personnel assigned to the Program. This exclusion does not apply to AUI and UCCND overhead.
- 6. The costs will be accumulated on the same basis (accrual cost) as if the work were being fully funded by DOE.
- 7. Costs will include such items as time of support personnel, craftsmen, equipment and parts fabrication, computer time, materials, supplies, and equipment used directly on the Program.
- 8. Each year by April 30, DOE shall prepare a statement of costs for the twelve-month period ending the previous March 31. This statement shall include a comparison of actual costs with estimated costs, and a comparison of actual research with planned research, for the purpose of adjusting budgets and research plans for the current year and future program years.
- 9. The ability of the Parties to carry out their responsibilities under this Arrangement is subject to the availability of appropriated funds.

ARTICLE V - ASSIGNMENT OF PERSONNEL'

- 1: Whenever an assignment of personnel is contemplated under this Arrangement, ISSP shall ensure that qualified personnel are selected for the assignment.
- 2. Each such assignment of personnel shall be the subject of a separate assignment arrangement between ISSP and AUI, or between ISSP and UCCND, subject to DOE approval.
- 3. ISSP shall be responsible for the salaries, insurance, and allowances to be paid to the personnel assigned under Paragraph 2 of this Article.
- 4. ISSP shall pay for travel and living expenses of the assigned personnel while such personnel are assigned to BNL

or ORNL, unless otherwise agreed.

- 5. AUI or UCCND shall assist in arranging for accommodations for the personnel assigned to BNL or ORNL and their families.
- 6. AUI or UCCND shall assist assigned personnel and their families as regards administrative formalities, including the acquisition of visas and other travel arrangements.
- 7. The assigned personnel shall conform to the general rules of work and safety regulations in force at BNL and at ORNL, or as agreed in the separate assignment arrangements.
- 8. Assigned personnel shall be given assistance necessary for the execution of their research and other activities under this Arrangement.

ARTICLE VI - LIABILITY

Compensation for damages incurred during the implementation of this Arrangement shall be in accordance with the applicable laws of the countries of the Parties.

ARTICLE VII - PATENTS AND INFORMATION

- 1. The Parties shall exchange information necessary to carry out the activities under this Arrangement.
- 2. All information arising from this Arrangement shall be promptly exchanged between the Parties.
- 3. The application or use of any information exchanged under or arising from this Arrangement shall be the responsibility of the Party receiving it, and the other Party does not warrant the suitability of such information for any particular use or application.
- 4. The information exchanged under and arising from this Arrangement may be given wide distribution. Such information may be made available to the public by either Party through customary channels and in accordance with the normal procedures of the Parties.
- 5. Copyrights of either Party or of cooperative organizations or persons shall be accorded treatement consistent with internationally recognized standards of protection.
- 6. Proprietary information shall not be accepted or

utilized in the Program without the express written approval of DOE and ISSP. For the purposes of this Arrangement, proprietary information shall mean information of a confidential nature such as trade secrets and know-how (for example, computer programs, design procedures and techniques, chemical composition of materials, or manufacturing methods, processes, or treatments) which is appropriately marked, provided such information:

- (a) Is not generally known or publicly available from other sources;
- (b) Has not previously been made available by the owner to others without obligation concerning its confidentiality; and
- (c) Is not already in the possession of the recipient without obligation concerning its confidentiality.

It shall be the responsibility of the Party supplying proprietary information to identify the information as such and to ensure that it is appropriately marked.

- 7. Inventions made or conceived in the course of or under this Arrangement resulting from design, construction, and use of the ISSP Equipment; resulting from use of other equipment or instrumentation as provided in Article II; and resulting from the research under the program (hereinafter referred to as "arising inventions") shall be identified by either DOE or ISSP and reported promptly to the other Party.
- Information regarding inventions on which patent protection is to be obtained shall not be published or publicly disclosed by the Parties until a patent application has been filed in either country of the Parties, provided, however, that this restriction on publication or disclosure shall not extend beyond six months from the date of reporting the invention. It shall be the responsibility of the Party reporting the invention to appropriately mark which disclose inventions that have not been appropriately protected bу the filing of a patent application.
- 9. Arising inventions shall be owned:
- (a) by ISSP in Japan, subject to a nonexclusive, irrevocable, royalty-free license to DOE and the nationals of its country designated by it; and
- (b) by DOE in the United States and in third countries, subject to a nonexclusive, irrevocable, royalty-free license to ISSP and the nationals of its country designated by it.

10. Each Party shall assume the responsibility to pay awards or compensation required to be paid to its own nationals according to its own laws. Each Party shall, without prejudice to any rights of inventors under its national laws, take all necessary steps to provide the cooperation from its inventors required to carry out the provisions of this Article.

ARTICLE VIII - EQUIPMENT

Except for the HFBR, the HFIR and the ISSP Equipment, all equipment to be exchanged or supplied under this Arrangement shall be covered by the following provisions:

- 1. The sending Party shall supply as soon as possible a detailed list of the equipment to be provided, together with the associated specifications and technical and other documentation.
- 2. The equipment, spare parts, and documentation supplied by the sending Party shall remain the property of the sending Party, and shall be returned to the sending Party upon completion of the mutually agreed activity unless otherwise agreed.
- 3. The host establishment shall provide the necessary premises and shelter for the equipment and shall provide for electric power, water, gas, etc., in accordance with technical requirements which shall be as mutually agreed.
- 4. Responsibility for expenses, safekeeping, and insurance during transport of the equipment from the original location in the country of the sending Party to the place of final destination in the country of the receiving Party shall rest with the sending Party. If the sending Party elects to have the equipment returned, the sending Party shall be responsible for expenses, safekeeping, and insurance en route from the host establishment to the final destination in the country of the sending Party.
- 5. The equipment provided by the sending Party for carrying out mutually agreed activities shall be considered to be scientific, not having a commercial character, and the receiving Party shall make a good faith effort to avoid the requirement for payment of an import tax on such equipment.

ARTICLE IX - ADDITIONAL PROVISIONS

1. This Arrangement shall enter into force upon signature, and shall continue for the duration of the DOE/MONBUSHO

Arrangement in Neutron Scattering.

- 2. This Arrangement may be terminated at the discretion of either Party upon six-month notification in writing by the Party seeking to terminate the Arrangement.
- 3. Any termination shall be without prejudice to the rights which may have accrued under this Arrangement to either Party up to the date of such termination. In the event of such termination, the settlement of payments between the Parties and the furnishing of information between the Parties shall be as mutually agreed.
- 4. Upon termination of this Arrangement, the Steering Committee shall distribute, subject to the approval of DOE and ISSP, the assets of the Program, or the proceeds therefrom, in proportion to the contributions and any outstanding obligations of the Parties pursuant to this Arrangement.
- 5. This Arrangement may be amended or extended by mutual written agreement of the Parties.
- 6. Activities under this Arrangement shall be subject to the the applicable laws and regulations of the countries of the Parties. All questions related to this Arrangement arising during its term shall be settled by the Parties by mutual agreement.
- 7. All joint efforts and experiments begun but not completed at the expiration or termination of this Arrangement may be continued by mutual agreement until their completion under the terms of this Arrangement.

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Sadao Nakajima				B. D. Hill			
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University of Tokyo

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Name

Kohei Shinozawa

The Obligating Officer
Director-General
Administration Bureau