

SPbU/1-70-120-CTCSTY  
om 12.11.2021

**Cooperation Agreement  
on the Establishment of the Joint Academic Project “Sino-Russian Joint  
Research Centre for Advanced Materials and Technology” between Harbin  
Institute of Technology and Saint Petersburg State University**

Federal State Budgetary Educational Institution of Higher Education “Saint-Petersburg State University” (hereinafter referred to as SPbU), duly represented by its Vice-Rector for International Affairs Sergey Andryushin, acting on the basis of proxy dated 21.12.2020 № 28-21-356, and the Harbin Institute of Technology (hereinafter referred to as HIT), represented by its Vice President Liu Hong, hereinafter together referred to as the “Parties” and solely to as the “Party”, enter into this Cooperation Agreement on the Establishment of the Joint Academic Project “Sino-Russian Joint Research Centre for Advanced Materials and Technology” (hereinafter referred to as SRJRCAMT) and agree to the following:

**1. Cooperation object**

The cooperation object in this Agreement is to establish the SRJRCAMT based on existing teaching and research resources of advanced materials and applied technology of the Parties, through which the Parties will gradually carry out bilateral high-level training programs and build strong long-term academic ties among experts and scholars to increase cooperation opportunities in education, science and technology innovation as well as technology industry incubation between the Parties.

**2. Areas of collaboration**

The collaboration first starts in the following five research areas:

2.1. Researches on Advanced Metallic Bulk Nanomaterials for Innovative Engineering Applications.

- Processing, microstructure and mechanical properties of ultrafine-grained titanium alloys;
- Microstructure and mechanical properties of ultrafine-grained biodegradable magnesium alloys;
- Microstructure and mechanical properties of ultrafine-grained copper and aluminum alloys.

2.2. Researches on Biomaterials for Orthopedic Implants and Innovative Therapy.

- Nanostructured titanium implants for dental and orthopedics;
- Bioactive coatings of implants for bone integration;

- Smart injectable bone grafts for minimally invasive therapy;
- Drug derived carbon based nanomaterials for innovative epidemic disease.

### 2.3. Researches on Advanced Ceramics and Composites.

- Design and sintering of novel high temperature ceramics;
- Advanced ceramics for multifunctional thermal insulation;
- 3D printing of advanced ceramics and composites;
- Development of space-based environment research platform.

### 2.4. Researches on Analysis of Advanced Materials under Extreme Conditions.

- Materials analysis and characterization under extreme conditions (extreme high or low temperature, complex irradiation and wind tunnel);
- Materials analysis based on major national science and engineering in space environment simulation research infrastructure;
- Rapid and noninvasive analysis of advanced materials.

### 2.5. Teaching and Training for Advanced Materials Technology.

- Development of academic relations with research groups within HIT and SPbU;
- Improved training of undergraduate students and postgraduates in the area of modern materials science;
- Hydrothermal and solvothermal synthesis of nanomaterials;
- Synthesis of novel materials, including new ceramics, polymer based composites.

## 3. Cooperation mechanisms

### 3.1. Formation of a bilateral collaboration system.

By the establishment of the SRJRCAMT, both Parties initiate a bilateral collaboration on advanced materials science and applied technology, in which both Parties will strengthen academic exchanges, conduct leading researches in the way of “internal core team + external cooperation”, practice the philosophy of internetting, win-win, and sharing, condense key scientific issues by extensive international academic interactions, and develop team members with international perspectives.

### 3.2. Joint application for national major/key programmes.

Through the establishment of the SRJRCAMT, both Parties integrate existing research resources and platforms, start up joint research teams for the major fundamental researches, and initiate more projects on advanced metal bulk nanomaterials, biomaterials for healthcare, advanced ceramics and composites, analysis and training of advanced materials to attach new vitality and growth point to the development of related disciplines in both Parties.

### 3.3. Education resource integrating and sharing.

Based on the SRJRCAMT, both Parties integrate education resources, optimize the overall arrangement of the training design, select and share bilateral programmes, take advantage of mutual discipline resources to provide pilot programmes on under/post graduate education, to realize a reasonable sharing of teaching resources such as platforms and facilities, and maximize the teaching efficiency and resource allocation, and to promote integrating and discipline-crossing practices between the Parties.

### 3.4. Industrialization and product conversion.

Under the SRJRCAMT, both Parties will actively carry out fundamental and interdisciplinary research for academic frontiers worldwide and scientific and technological innovation for China and Russia's major demands, encourage and strengthen talent and technology exchanges between the Parties, and promote the scientific and technological achievements of the Parties.

## **4. Authorized representatives**

4.1. Both Parties shall designate authorized representatives (as follows) in the SRJRCAMT, who are responsible for the participation and organization in teaching and research activities of the SRJRCAMT, the expert selection for the SRJRCAMT as well as relevant news releases.

## **5. Validity period of this cooperation Agreement**

The duration of this cooperation Agreement shall be five years effective from the date of signing by both Parties and may be automatically extended for an additional period of one year upon mutual agreement of the two Parties; or this cooperation Agreement may be negotiated and amended not less than six months in advance. When disagreements occur in the duration, both Parties can reconsider cooperation conditions and sign a new cooperation Agreement. Either Party who wants an earlier termination shall give a notice to the other Party in written not less than six month prior to the previously agreed termination date.

## **6. Intellectual property**

6.1. The Parties agree to abide by intellectual property rights of each Party created before the conclusion of the present Agreement.

6.2. The intellectual property rights created under the present Agreement will belong to the Party created the intellectual property.

6.3. In respect to intellectual property jointly created by the Parties under the present Agreement the Parties agree to conclude a separate Agreement on the legal protection, utilization and ensuring of confidentiality of such intellectual property.

## 7. Other terms

7.1. Detailed contents and funding conditions of the cooperation between both Parties shall be upon financial capacity and specific items of the two Parties and shall be implemented based on independent contracts signed by authorized administrators of both Parties.


7.2. Within the duration of this cooperation Agreement, detailed directions and contents of both Parties' scientific research cooperation and joint education as well as exchange conditions for faculties, scientific research staffs, and students shall be determined by specific plans, with a duration within that of this Agreement.

7.3. This Agreement may be amended and supplemented upon mutual agreement of the two Parties.

7.4. Disputes resulting from the implementation of this Agreement shall be solved by negotiations between the two Parties. Conflicts left after negotiations shall be handled according to each Party's domestic laws.


7.5. This Agreement is made in two copies in English, one for each Party. All copies signed by both Parties have the equal legal effect.

On behalf of  
Federal State Budgetary Educational  
Institution of Higher Education  
"Saint Petersburg State University"

  
\_\_\_\_\_  
Valeriya Babushkina  
Acting Vice-Rector  
for International Affairs

Date: 29.09.2021

On behalf of  
Harbin Institute of Technology

  
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Liu Hong  
Vice President

Date: 12.11.2021