

## Joint Institute for Nuclear Research

International Intergovernmental Organization

## SCIENCE BRINGS NATIONS TOGETHER



# **Postdoctoral Programme in Soft Matter Interfaces**

12-month contract, renewable for another max. 24 months

### Your mission

The main objective of this position is to understand the structure evolution of interfaces containing soft matter components in various conditions using neutron and X-ray reflectometry. The task is to search for new ways of controlling the properties of hidden interfaces and free surfaces for different nanotechnologies.

## Your tasks

You will work with our Neutron reflectometry group at the reflectometer GRAINS. Your research programme will focus on ex situ and in situ reflectometry experiments on:

- Adsorption of nanoparticles and macromolecules on interfaces from colloidal solutions.
- Interfaces for energetics.
- Polymer-based interfaces.
- Free liquid surfaces.
- Development of techniques with polarized neutrons for magnetic soft matter at interfaces.

## **Constraints and risks**

The work is partially carried out at the reactor facilities, while the necessary authorizations will be issued following an annual medical examination arranged by the employer.

Depending on your citizenship, you may need to obtain a visa and this process can last several months. JINR offers all the necessary support for obtaining the entry permit for the Russian Federation.

## Your profile

- Highly motivated candidate with a PhD (obtained less than 5 years ago) in physics or chemistry.
- Age under 40, have not had more than 3 temporary positions.



- Strong background in experimental physics is a prerequisite.
- Practical experience in soft matter research would be advantageous.
- As an international intergovernmental research organization, we are particularly keen to ensure that we also attract applicants from outside of Russia. You must have good knowledge of English and be willing to learn Russian (a language course will be provided by JINR).

#### What we offer

#### High quality of life

Called the "Island of Stability", the city of Dubna is ideally located on the bank of Europe's largest waterway — the Volga River (only 2.5 hours from Moscow by train or bus and 1.5 hours by car from Sheremetyevo International Airport). It is important for us that our employees quickly and easily adapt to the new living conditions and have a healthy work-life balance. Therefore, we offer accommodation in comfortable guest-house rooms (for singles), or fully furnished flats owned by JINR, and annual paid leave.

#### **Prospects**

We guarantee you a **12-months postdoctoral contract, renewable for another max. 24 months (36 month in total)**, in a multicultural scientific environment.

#### Remuneration

2300 USD per month, paid in Russian rubles at the planned exchange rate (forecasted yearaverage), which is adopted with the JINR budget for the current year. In 2023, the exchange rate is 69.2 Russian rubles per 1 USD.

Income tax of 13% is applied. The employer shall pay no pension insurance.

#### **Benefits**

We offer generous social benefits (settling-in allowance, free health insurance for you and your family members), relocation assistance (under certain conditions), free school or kindergarten attendance for children. We also offer free language courses and subsidies for the use of JINR sports infrastructure (Olympic swimming pool, stadium, gym, etc.), as well as access to a variety of cultural activities.







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