



2020 HGF – GSI – OCPC – Programme for the involvement of postdocs in bilateral collaboration projects

Title of the project:

Synchrotron Accelerator: Advanced development for reliable operation of high intensity heavy ion source and ECR ion sources

Helmholtz Centre and institute:

GSI

Project leader:

R. Hollinger/K. Tinschert

Contact Information of Project Supervisor:

R.Hollinger@gsi.de/K.Tinschert@gsi.de

Web-address:

www.gsi.de

Department: (at the Helmholtz centre or Institute)

Ion Sources

Programme Coordinator (Email, telephone and telefax)

Dr. Pradeep Ghosh

FAIR/GSI - International Programme for Students and Researchers (INTL)

Phone: +49 6159 71-3257

Email: Pradeep.Ghosh@fair-center.eu / International@gsi.de

Description of the project (max. 1 page):

While the plasma based ion sources have been widely used in industry as well as research, the accelerator based intensity driven research field has posted new challenges in the area of higher intensity, higher brightness, higher reliability and etc.

As the key part of the Universal LINAC, our group is not only responsible to provide a variety of ion species for the operation, but also is carry out the development of ion sources for future FAIR facility, such as the high intensity proton source, 18GHz EZR source and high intensity heavy ion source at high repetition rate.

We are looking for a young talented person who is motivated in joining our operation and ongoing developments. We also expect this person to actively working with us identifying measures utilizing modern techniques and algorithms to significantly improve the ion source performance in terms of beam quality as well as reliabilities.

Besides the basic knowledge in Physics and skills in coding with modern languages, you are also expected to be able to work in a team and fluent in English. Knowledge of German will be highly appreciated.



Description of existing or sought Chinese collaboration partner institute (max. half page):

Harbin Institute of Technology, China

Required qualification of the post-doc:

- PhD in Accelerator Physics
- Experience with Ion Sources, beam formation and transport, beam diagnostic
- Additional skills in Plasma Physics, Java Programming
- Language requirement: English