



Contribution ID: 182

Type: **Poster presentation**

## **The Preliminary Tests of the High Charge State All-Permanent Magnet ECR Ion Source DECRIS-PM**

*Monday, 16 October 2017 18:45 (15 minutes)*

Super-heavy-element factory is under development at the Flerov Laboratory for Nuclear Reactions, JINR, Dubna. The factory will include DC-280 cyclotron, which will be equipped with two 100 kV high voltage platforms. A high charge state all-permanent magnet 14 GHz ECRIS –DECRIS-PM has been designed and fabricated to provide intense multiple charge state ion beams. The request for the source is a production of medium mass ions with  $A/q=4\div 7.5$  such as  $^{48}\text{Ca}^{8+}$ . The conceptual design of DECRIS-PM is presented. During the first tests, the source shows a good enough performance for the production of medium charge state ions (such as  $900\ \mu\text{A}\ \text{Ar}^{8+}$ ,  $550\ \mu\text{A}\ \text{Ar}^{9+}$ ,  $200\ \mu\text{A}\ \text{Ar}^{11+}$ ,  $160\ \mu\text{A}\ \text{Kr}^{15+}$ , etc.).

**Primary authors:** Dr EFREMOV, Andrey (JINR); Mr BEKHTEREV, Vladimir (JINR); Dr BOGOMOLOV, Sergey (JINR); Mr BONDARCHENKO, Andrey (JINR); Dr LEBEDEV, Aleksandr (JINR); Mr LOGINOD, Vladimir (JINR); Dr MIRONOV, Vladimir (JINR); Dr KONEV, Nikolay (ATT Group)

**Presenters:** Dr EFREMOV, Andrey (JINR); Dr EFREMOV, Andrey (JINR); Dr EFREMOV, Andrey (Joint Institute for Nuclear Research)

**Session Classification:** Poster Session 1

**Track Classification:** Production of highly charged ion beams