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Recent results of NIO1 negative ion source and future improvements

Tuesday, 15 March 2016 15:00 (20 minutes)

Neutral Beam Injectors (NBI) based on negative ion conversion are fundamental to increase the plasma temperature in magnetic confinement fusion devices.. In the framework of the accompanying activities in support to the ITER NBI test facility a relatively compact radiofrequency (RF) ion source, named NIO1 (Negative Ion Optimization phase 1) is being developed and tested in Padua, Italy, in collaboration between Consorzio RFX and INFN. This contribution reports the recent status of the experiment, including the operation in air and oxygen and the first beam measurements. Future improvements to enhance the negative ion current and reduce the amount co-extracted electrons are also discussed.

If a proceedings is prepared,
</br> will you submit a contribution?

yes

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