



Status of the Pellet Target

**A.Gerasimov, V.Chernetsky, M.Büscher*, P.Fedorets, A. Kantsyrev,
E. Lushchevskaia, V.Panyushkin, A.Panyushkina, A.Bogdanov, A.Dolgolenko,
P.Balanutsa, E.Ladygina, L.Gusev, S.Mineev, I.Tarasenko, V.Demekhin,
A.Golubev, S.Makagonov, N.Kristi, V.Karasev**

*Institute for Theoretical and Experimental Physics
named by A.I. Alikhanov of National Research Centre «Kurchatov Institute»
Moscow, Russia*

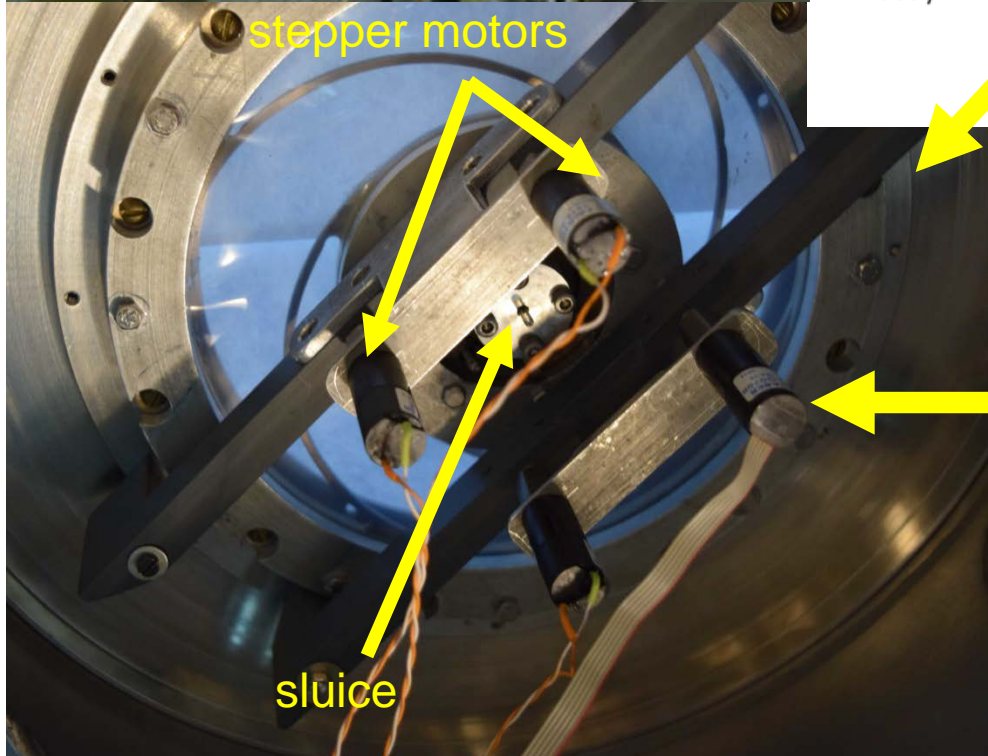
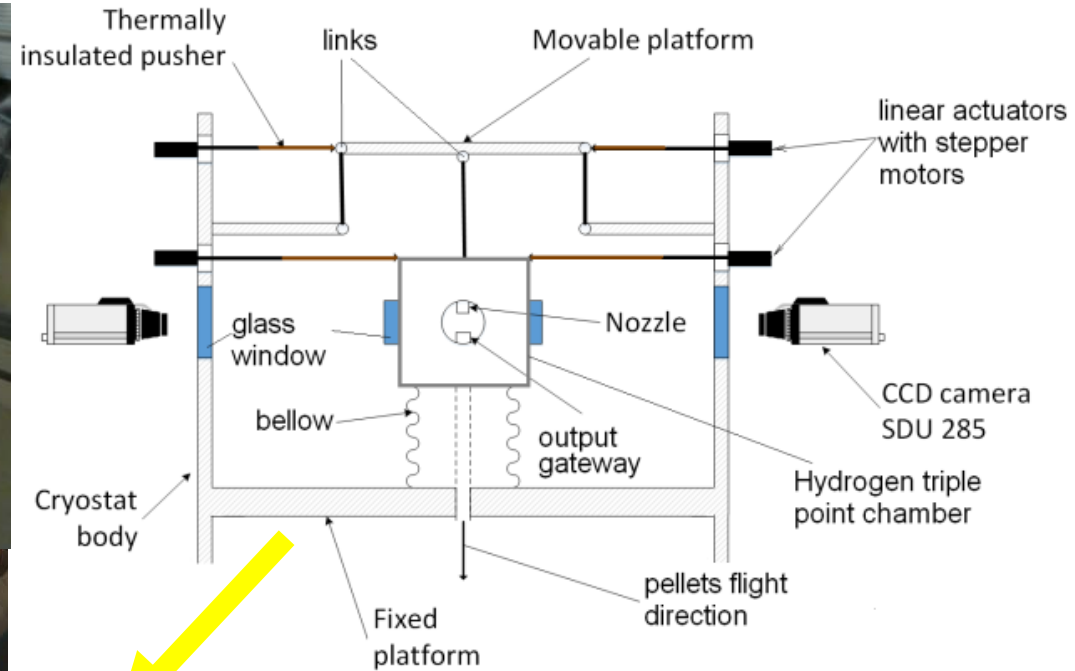
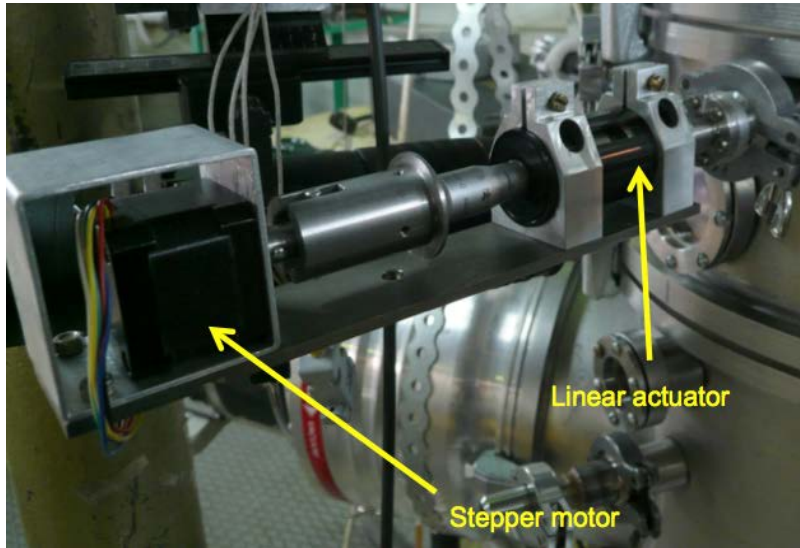
**Peter Grünberg Institut
PGI-6 Elektronische Eigenschaften
Forschungszentrum Jülich, Germany*

Pellet target activity in ITEP in 2020

The main focus of our activity - transfer of the droplets through sluice:

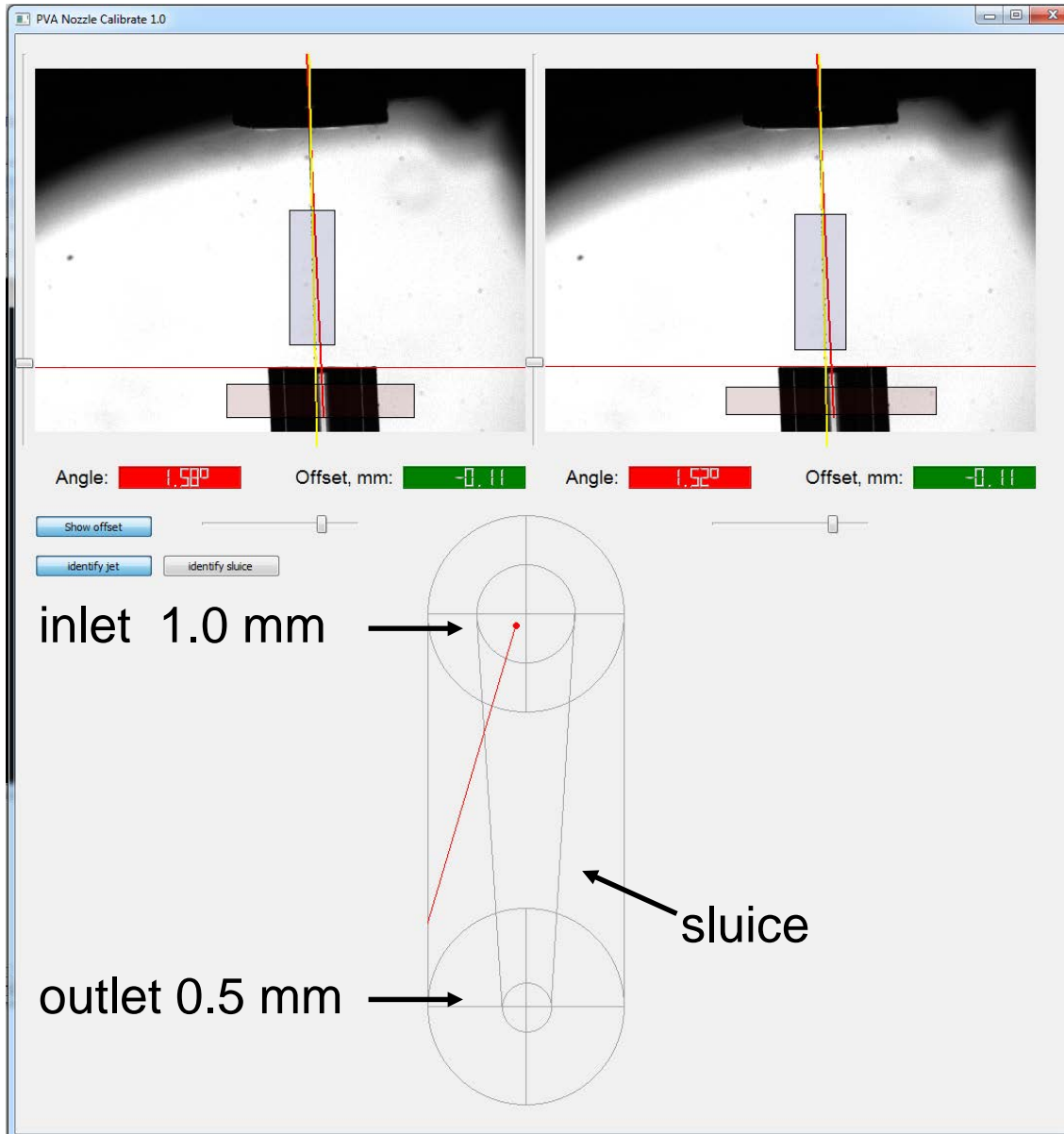
- Update of the adjustment system.
- Debugging of adjustment diagnostics.
- Change the construction of the sluice.
- Collecting experience during tests.

Development of the adjustment system



Old motors are exchanged by new stepper motors. Commissioning and tests are going on. New construction of sluce is under production and tests. Sluce is much shorter now.

Analysis software for the adjustment system



Software provides :
in two projection

- axis of the jet
- axis of the sluce
- angle jet - sluce
- offset jet – sluce center
- calculation of the pellet trajectory inside the sluce

Summary

Totally we had 11 tests in 2020.

Due to the corona virus the activity is reduced.

Therefore from March up to now we had only 5 tests.

Achievement: all 5 tests we had with the same nozzle (\varnothing 26 μm).

This is record for long time operation for one nozzle.

The ITEP is working in the reduced mode now due to the corona virus.

Government restricted the movement of people 65+ by blocking of the transport cards.

As result we have a big delay in our preparations of the Pellet target.

But we continue the development of the Pellet Target.