Student's Zone 2018 of the NICA Project



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Returning gas pressure stabilization system in ToF detector using a pump suspended on magnetic bearings.

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In order for the ToF detector to function properly it requires a gas mixture, which is constantly supplied to the system. Due to the gas'mixture components, more specifically the Tetrafluoroethane, it cannot be released into the atmosphere. Due to its hazardous impact on the environment, the system needs to be closed, allowing the gas circulation.

The returning gas pressure needs to be stabilized using a pump, which, because of the necessity of gas mixture purity, must not be lubricated in any way, thus must not include any parts, which generate friction. As a solution to this issue, I propose a pumping system, which uses magnetic bearings.

Temat:

OK

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