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Design and Commissioning of the Queen's University Rotamak

Wednesday, May 29, 2024 2:30 PM (30 minutes)

A rotamak device based on the original Flinders Rotamak¹ is being designed and constructed at Queen's University. Unlike the original Flinders design, which had a spherical pyrex discharge chamber, the Queen's University rotamak incorporates a cylindrical pyrex chamber having a diameter of about 31 cm and a height of about 47 cm. The design and modelling of the various rotamak subsystems will be presented along with experimental results from those subsystems which have already been commissioned. The vacuum and fuelling systems, and the radio frequency pre-ionization system will be presented in particular detail.

References:

1 I.R. Jones, Physics of Plasmas 6(5), May 1999, pp1950-1957.

Keyword-1

Fusion

Keyword-2

Rotamak

Keyword-3

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