

PLPAC meeting 2024-1

Contribution ID : 3

Irradiation of Zr-2.5Nb alloy with Cl 35 beam

Tuesday 23 Apr 2024 at 10:15 (00h15')

PI info :

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local collaborator info :

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Collaborators Name :

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Motivation :

It is planned to perform exposures of Zr-2.5Nb specimens to ^{35}Cl beam for various durations (1h, 8h, etc) at the pelletron facility to achieve different levels of Cl ion implantation in the specimens. These specimens will then be subjected to nodular corrosion experiments at MP&CED; to study the effect of different levels of Cl ion implantation. The mechanism for nodular corrosion in gaseous phase attributes the initiation of nodules to the defects in the oxide. Therefore, it is also planned to generate various defects in the oxide by ^{35}Cl irradiation and study their effect on nodular corrosion

Beam time requirement in shifts :

9

Beam :

^{35}Cl

Beam Energy :

70-75

Beam Current :

50-500

Beam Port :

6M/30N

Buncher Required :

No

Target / Sample Details :

Zr-2.5Nb pressure tube specimens with and without oxide

Whether the experiment is part of PhD work ? :

No

Whether the experiment is part of Post-Doc work ? :

No

information on the past beamtime at PLF :

None

Publication information related to prior work at the PLF :

NA

Primary authors : Dr. AHMEDABADI, Parag (Scientific Officer)

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Session classification : --not yet classified--

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