Contribution ID: **381** Type: **POSTER**

Nuclear Hydrogen and Fast Reactors

Tuesday, April 19, 2022 3:10 PM (2 hours)

Hydrogen and hydrogen technology are expected to have a key role as an energy carrier for the technic and economic systems. This are expected to be a new impulse for the nuclear's integration in the grid.
Large-scale demonstration projects of the low carbon hydrogen production require major investments by countries and long term strategies. Taking into account the specific of nuclear industry, that also require long term strategies and substantial investments, both hydrogen production and nuclear power can complement each other in future development.
From technical point of view, this binder is thermochemical cycle. This hydrogen pathway comprises the oxidation of a metal oxide or an oxidable compound (e.g. iodine-sulphur) by a reaction with water and, second, the recycling of this compound, that takes place at higher temperatures by stripping off one oxygen atom.
This paper summarizes the current concerns of the hydrogen community in finding solutions based on scientific fundamentals for hydrogen production using nuclear energy.

Country/Int. organization

Romania

Speaker's email address

iordache.ioan@icsi.ro

Speaker's title

Mr

Affiliation/Organization

INCD TCI ICSI Rm. Valcea

Primary author: Dr IORDACHE, Ioan (ICSI Rm. Valcea)

Presenter: Dr IORDACHE, Ioan (ICSI Rm. Valcea)

Session Classification: Poster Session

Track Classification: Track 7. Sustainability: Economics, Environment, and Proliferation