FROM SOLAR FUELS TO OXYGEN PRODUCTION ON MARS

Abstract:

There is a renewed interest on CO$_2$ plasmas nowadays, as their activation by selective excitation of the asymmetric stretching vibrational mode may enhance dissociation and favour CO$_2$ conversion at a low energy cost. This CO$_2$ reforming process takes advantage of the so-called vibrational (V-V) up-pumping mechanism and can be tuned to the production of solar fuels on Earth or to the oxygen and rocket fuel production on Mars. The current status of research on Earth and the similarities and differences with the application to Mars are discussed.

Contacts:
Staff di Dipartimento di Fisica
0461 28-1504-1575-2042
do.supportstaff@unitn.it

Scientific Coordinator:
prof. Paolo Tosi

Via Sommarive, 14 - 38123 Povo (Trento), Italy - Tel. +39 0461/281504-1575-2042, Fax +39 0461/281696