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DIPARTIMENTO DI
SCIENZE E
TECNOLOGIE
AEROSPAZIALI

Advances on Gel Propulsion

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Abstract

Gel propellants and fuels attract significant attention in the last years because of their safety and performance advantages. They can be stored as solids and they are atomized and burned as liquids. In addition, specific gel propellants can be hypergolic (ignite upon contact) and "green". A survey of gels will be presented together with recent advances.

Short CV

ACADEMIC DEGREES:

B.Sc. - 1977, M.Sc. - 1982, Ph.D. - 1988 All from the Faculty of Aerospace Engineering Technion - Israel Institute of Technology, Haifa, Israel.

ACADEMIC APPOINTMENTS:

Oct. 1991 - present

Faculty of Aerospace Engineering, Technion-I.I.T., Haifa, Israel

March 2016-present and Sept. 2013 – March 2014

Visiting Professor, Politecnico di Milano, Milan, Italy

Aug. 2003 - Feb. 2004

Visiting Professor, National Technical University of Athens, Athens, Greece

Sept. 1989 - Sept. 1991

National Research Council Research Associate

Naval Postgraduate School, Monterey, CA, USA

RESEARCH INTERESTS: Propulsion and Combustion and related areas, including:

Gel Propellants (rheology, flow, atomization and combustion) for Rocket and Ramjet Engines; Hydrogen Peroxide applications; Hybrid Rockets; Boron Combustion, Combustion of Metals.

Member International Academy of Astronautics

Associate Fellow of The American Institute of Aeronautics and Astronautics (AIAA).

Member of The Combustion Institute, The Institute of Liquid Atomization and Spray Systems, Israeli Society of Aeronautics and Astronautics.

Associate Editor:

International Journal of Energetic Materials and Chemical Propulsion

Gels

HONORS:

12 times Outstanding Lecturer Award at the Technion, Israel.

PUBLICATIONS

50 REFEREED PAPERS IN PROFESSIONAL Scientific Journals

70 PUBLICATIONS IN CONFERENCE PROCEEDINGS

2 PATENTS

Sito Web DAER: <http://www.aero.polimi.it>

June, the 28th, 2016 at 12:00

Sala Consiglio, 2nd Floor, Building B12, Campus Bovisa

Dip. di Scienze e Tecnologie Aerospaziali

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