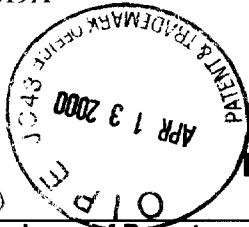


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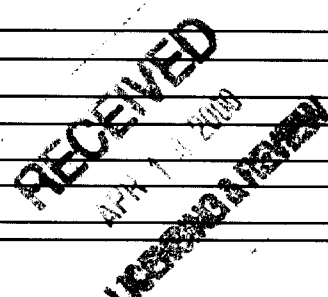
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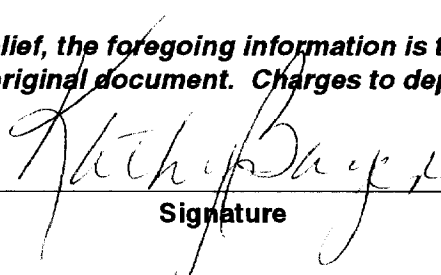
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National Aeronautics and Space Administration

License to the Government

Patent Application

In accordance with a contract set forth below between the Government of the United States of America, as represented by the Administrator of the National Aeronautics and Space Administration (NASA) and the below-named Contractor, the invention cited below is a SUBJECT INVENTION made in the performance of work under the contract, and  the Contractor has elected to retain title to the SUBJECT INVENTION; or  the Contractor has elected not to retain title to the SUBJECT INVENTION, and NASA, after consultation with the Contractor, has granted the request for retention of rights by the Inventor, an employee of the Contractor, subject to the provisions of 35 U.S.C. §202(d) and FAR 52.227-11; Patent Rights-Retention by the Contractor, but subject to a License to the Government, as described below.

NOW THEREFORE, pursuant to the terms and conditions of the contract, the Contractor/Inventor does hereby grant to the Government of the United States a non-exclusive, non-transferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States this SUBJECT INVENTION and any patents which may issue thereon throughout the world. At this time at least the following U.S. patent application has been filed on the SUBJECT INVENTION.

Title: Measurement of Distributed Strain and Temperature Based on Higher Order and Higher Mode Bragg Conditions

Contractor: Office of Technology Liaison  
University of Maryland  
4312 Knox Road  
College Park, MD 20742

Patent Application Serial No.: 09/393,631  
Filed: 09/10/99  
Patent No.:  
Issue Date:

Contract No.: NAS1-97-049  
Contractor Case No.: PS-98-022  
NASA Case No.: LAR 15826-1-CU

Inventor(s): James Sirkis  
Ponniah Sivanesan  
Venki Venkat

The Contractor/Inventor agrees to include, within the specification of any United States patent applications and any patents issuing thereon covering this SUBJECT INVENTION, the following statement as in FAR 52.227-11(f)(4):

*"This invention was made with government support under contract \_\_\_\_\_ awarded by NASA. The Government has certain rights in this invention."*

The Contractor/Inventor further agrees to notify the NASA of any decision not to continue prosecution of the application(s), pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration period required by the U. S. Patent and Trademark Office.

Title to this invention is subject to the March-in-Rights by the NASA as stated in 35 U.S.C. §203 and FAR 52.227-11(j).

The Contractor/Inventor shall furnish a copy of the patent application cited above and a listing of each country in which applications have been and are filed. Whenever a patent issues on the SUBJECT INVENTION, the patent number, the issue date, and the country shall be made known to the Government as soon as this information is available to the Contractor/Inventor.

James A. Poulos, III  
Acting Executive Director

(Typed name and title of Corporate Officer or Inventor(s), if Contractor has elected not to file.)

(Signature and date)

NASA Form 1604 (March 1990)