

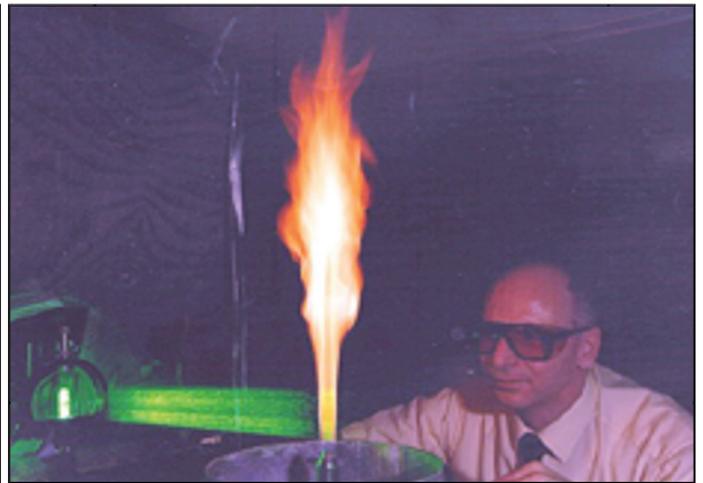


Air Force Research Laboratory|AFRL

Science and Technology for Tomorrow's Air and Space Force

Success Story

PROPULSION DIRECTORATE SCIENTIST NAMED ASME FELLOW



The American Society of Mechanical Engineers (ASME) honors its distinguished members with the title of Fellow for promoting the art, science, and practice of mechanical engineering throughout the world. The Fellow grade is the highest elected grade of membership within ASME, the attainment of which recognizes exceptional engineering achievements and contributions to the engineering profession.



Air Force Research Laboratory
Wright-Patterson AFB OH

Accomplishment

The ASME recently named Dr. William M. Roquemore, a senior research scientist for the Propulsion Directorate, an ASME Fellow for 2002. The honor recognizes Dr. Roquemore's significant achievements and contributions to the engineering profession in his role as senior research scientist in the field of air-breathing combustion, diagnostics, and fuels technologies.

Background

Dr. Roquemore has nearly 40 years of research to his credit and is a Wright Laboratory Fellow (1989), an AFRL Fellow (1991), and also an American Institute of Aeronautics and Astronautics Fellow (1999). He has published more than 150 research and technical articles that identified technical barriers and then formulated innovative and pioneering approaches to overcome them.

Dr. Roquemore made significant contributions to air-breathing combustion with his work on the revolutionary Trapped Vortex Combustor (TVC), which he coinvented. TVC demonstrates significant improvements in performance while drastically reducing engine emissions.

With this groundbreaking approach to combustor design, the TVC has the potential to expand the flight envelope of Air Force aircraft by reducing lean blowout while significantly reducing oxides of nitrogen and volatile organic compound emissions. The TVC concept won the 2001 Pollution Prevention Program of the Year Award from the Strategic Environmental Research and Development Program Office.

Dr. Roquemore also has patents for a fiber optic device that measures temperature remotely and for materials designed to prepare vertical takeoff and landing sites. His body of work also includes research efforts involving the development and application of laser diagnostic techniques to combustion, thermally stable jet fuels, integrated fuel system technologies, and soot-reducing additives for jet fuel.

Additional information

To receive more information about this or other activities in the Air Force Research Laboratory, contact TECH CONNECT, AFRL/XPTC, (800) 203-6451 and you will be directed to the appropriate laboratory expert. (03-PR-06)

Propulsion
Awards and Recognition