MAE Seminar Series

Carbon-Carbon Composites for Aircraft Brake Applications

A Graffin Lecture sponsored by the American Carbon Society

Thursday,
February 4
4:00 PM
Zoom Information
Meeting ID: 983 6137 4638
Password: MAE2021

Prof. John Linck
Associate Director of Carbon R&D
Collins Aerospace
&
Adjunct Professor
Carbon Research & Development
Colorado State University Pueblo

ABSTRACT

Carbon-carbon composites were discovered in 1958 and first used as a thermal protection system on the Space Shuttle Orbiter beginning in April 1982. Today, carbon-carbon composites are used for a wide range of high temperature applications including re-entry vehicle nose caps, rocket motor exhaust throats, heat exchangers, and aircraft brake and Formula I friction materials. This presentation provides an overview of the history and applications of carbon-carbon composites, with focus on aircraft brake friction material processing and applications, and material development/ development opportunities.

BIO SKETCH

Work Experience

- Associate Director of Carbon Research and Development (2000 – present)
- Goodrich Corporation / UTC Aerospace Systems / Collins Aerospace Carbon Process Engineer/Program Engineering Manager (1992 – 2000)
- BFGoodrich / Goodrich Corp Lead Materials Engineer, Carbon-Carbon Technologies Group (1985–1992)
- LTV Aerospace and Defense / Lockheed Martin Missiles and Space Co-op Student, Vought Corporation (1982-1985)

Education

- BS in Mechanical Engineering, University of Evansville (1985)
- ME in Mechanical Engineering, University of Texas at Arlington (1990)
- MS in Business Administration, Colorado State University – Pueblo (2000)
- MS in Polymer Science / Composites, University of Southern Mississippi (in progress)

Teaching Experience

- Adjunct Professor, Colorado State University – Pueblo, Materials Science and Eng. (2005 – present)
- Volunteer/Mentor, Boys and Girls Club, Junior Achievement, Christ the King Church