

# **COMPOSITE MATERIALS FOR INNOVATIVE WIND TURBINE BLADES\***

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## **ABSTRACT**

The Wind Energy Technology Department at Sandia National Laboratories (SNL) focuses on producing innovations in wind turbine blade technology to enable the development of longer blades that are lighter, more structurally and aerodynamically efficient, and impart reduced loads to the system. A large part of the effort is to characterize the properties of relevant composite materials built with typical manufacturing processes. This paper provides an overview of recent studies of composite laminates for wind turbine blade construction and summarizes test results for three prototype blades that incorporate a variety of material-related innovations.

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