Preface

Various technological designs and developments nowadays are inspired and enriched by composite materials and material compounds. Combinations of high performance materials, which outreach their monolithic raw materials in certain areas of application and performance, facilitate improved and novel products.

In the light of dwindling resources and increasing raw material prices economical, ecological and production-orientated material aspects become evermore important. To meet these new demands multidisciplinary research and developments are required, which offer new fields of research particularly for the junior scientists.

The "21st Symposium on Composites", held in Bremen, Germany, from July 5-7, 2017, brought together researchers from different scientific institutions and technology companies to present and discuss latest developments and trends in all kinds of composites. With its high tech industries from the automotive, aerospace and marine sectors and university associated institutes dedicated to academic research in material sciences located here, Bremen was a good place to host a materials symposium.

The series of symposia on composites have become a popular forum for a wide range of composite related topics as polymer, metal and ceramic composites, hybrid structures and laminates, coatings, manufacturing technologies, testing and simulation, structural health monitoring, bio composites and recycling. The corresponding conference proceedings have been reviewed by the scientific committee of this symposium and are published in this transcript.

This conference was organized by "Gemeinschaftsausschuss Verbundwerkstoffe (GAV)" within "Deutsche Gesellschafft für Materialkunde e.V. (DGM)" in cooperation with the University of Bremen. The organizing scientific committee of this conference hopes that all participants enjoyed the conference, got new impressions and had inspiring discussions and a good time in the Hanseatic City of Bremen.

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