

Press Release

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Lighter and optically more high-grade automotive body parts in future – ITA-doctoral candidate Inga Noll gains the Hanns Voith Foundation Prize 2016 for new materials

Heidenheim, Germany, 24 June 2016 ITA-doctoral candidate Inga Noll was awarded with the Hanns Voith Foundation Prize 2016 for new materials in the amount of 5.000 EUR on 24 June 2016 in Heidenheim, Germany. Ms Noll obtained the prize for her master thesis „Investigation and evaluation of the application of polyetherimide in automotive body parts with high-class surface and thermal stress“.

With her Master’s thesis Ms Noll explored the approach of the automotive industry to lighter and optically more high-grade automotive body parts for the first time. So far, keen and lighter thermoplastic fibre compound plastics were developed in the automotive area which were limited thermically resistant with a low surface quality. Ms Noll connected in her master thesis an amorphous high temperature fixed plastic with an adopted process and installation engineering und exceeds so the previous material offers for automotive body parts.

Thereby, Ms Noll applies a fibre-reinforced plastic with a thermoplastic matrix made of polyetherimide (PEI) and fibre reinforcement made of carbon fibres (CF).

A comparison of process costs of currently in the market available body panels and panels made of PEI/CF at the ITA results in an eco-

conomic assembly of the introduced approach. This research approach will be pursued further in cooperation with the Japanese chemical fibre producer Kuraray Co., Ltd., and chosen OEMs.

“We appreciate Ms Noll’s master thesis to prove features of textile-composite consisting of carbon fibres and our polyetherimide fibres such as high mechanical properties, good surface smoothness, excellent flame retardancy and so on.”, outlines Hideo Hayashi, Manager Fiber Materials Planning and Development Department, Kuraray Co. Ltd., Tokyo, Japan. “Through this work, we hope that our products will be applied in automotive parts in the near future.”

The Hanns Voith Foundation awards the Hanns Voith Foundation prizes for outstanding theses at universities for engineering, sciences and economics. The thesis has to bear topical reference to the group sector Voith Hydro, Voith Industrial Services, Voith Paper and Voith Turbo and also to the functional areas economics or new materials. The universities entitled to a proposal assess the thesis as worthy for an award. The prizes should serve to heighten the responsibility of the Hanns Voith Foundation for the qualification of academic professionals and executives in public. Thereby, the Hanns Voith Foundation wants to make a contribution to the research and education site of Germany.

Caption

[Award winners inclusive jury, members of foundation council and board members of Hanns Voith Foundation, source: Hanns Voith Foundation](#)

About the Institut für Textiltechnik (ITA) of RWTH Aachen University

The Institut für Textiltechnik (ITA) belongs to the excellence university RWTH Aachen. Its core expertise consists of textile related production technologies and high performance materials. With the Centre for High Performance Materials ITA offers small and medium sized companies direct access to scientific research especially in the fields of high modulus fibres and composites. ITA provides research and development services and advanced training and creative workshops in cooperation with its partner company ITA Technologietransfer GmbH. Furthermore, ITA graduates students in various textile related courses. Please find further information at www.ita.rwth-aachen.de

Started in winter semester 2015/2016, ITA is offering the new international Master degree 'M.Sc. in Textile Engineering' in cooperation with RWTH International Academy. Related information under www.master-mechanical-engineering.com/course/msc-textile-engineering.