

“History and future vision of carbon fibres development ”, by Dr. Makoto ENDO

Polyacrylonitrile-based carbon fibres were invented in the 60s and commercialized in the 70s. Since then, the market demand of carbon fibres has increased, particularly in the last 15 years, and their applications have been expanding from sporting goods to aircraft, aerospace, and industrial applications such as automotive and civil engineering. During this expansion, their fundamental mechanical properties, such as tensile strength and modulus, have been improved, mainly by trying to minimize the size of defects and bettering the orientation of their crystalline structure. In parallel with these improvements, intermediate materials such as fabrics and prepregs have been developed, so that they can be applied in easier processes and moulding methods for more various applications.

In this presentation, a brief history of carbon fibres development is expounded, and a vision of their future development, based on forecasts of market demands and technological trends, is suggested.



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