

A Novel Methodology for Mode III Testing of Laminated Composite Materials

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Using a statistical model for the analysis of the influence of the type of matrix carbon-epoxy composites on the fatigue delamination under modes I and II of fracture

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Influence of low temperatures on the phenomenon of delamination of mode I fracture in carbon-fibre/epoxy composites under fatigue loading

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Influence of temperature on a carbon-fibre epoxy composite subjected to static and fatigue loading under mode-I delamination

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Material Behaviour
Fractography and failure mechanisms in static mode I and mode II delamination testing of unidirectional carbon reinforced composites

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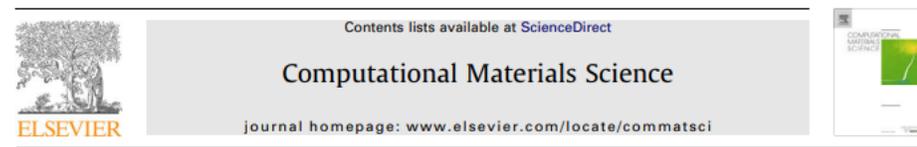
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Influence of the matrix constituent on mode I and mode II delamination toughness in fiber-reinforced polymer composites under cyclic fatigue

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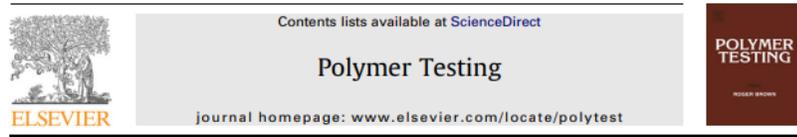


Numerical and experimental validation of computational models for mode I composite fracture failure

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Test Method

Theoretical and experimental analysis of carbon epoxy asymmetric dcB specimens to characterize mixed mode fracture toughness

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Influence of the principal tensile stresses on delamination fracture mechanisms and their associated morphology for different loading modes in carbon/epoxy composites

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Mixed mode fracture toughness: An empirical formulation for G_I/G_{II} determination in asymmetric DCB specimens

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Study of the phenomenon of fatigue delamination in a carbon-epoxy composite under mixed mode I/II fracture employing an asymmetric specimen

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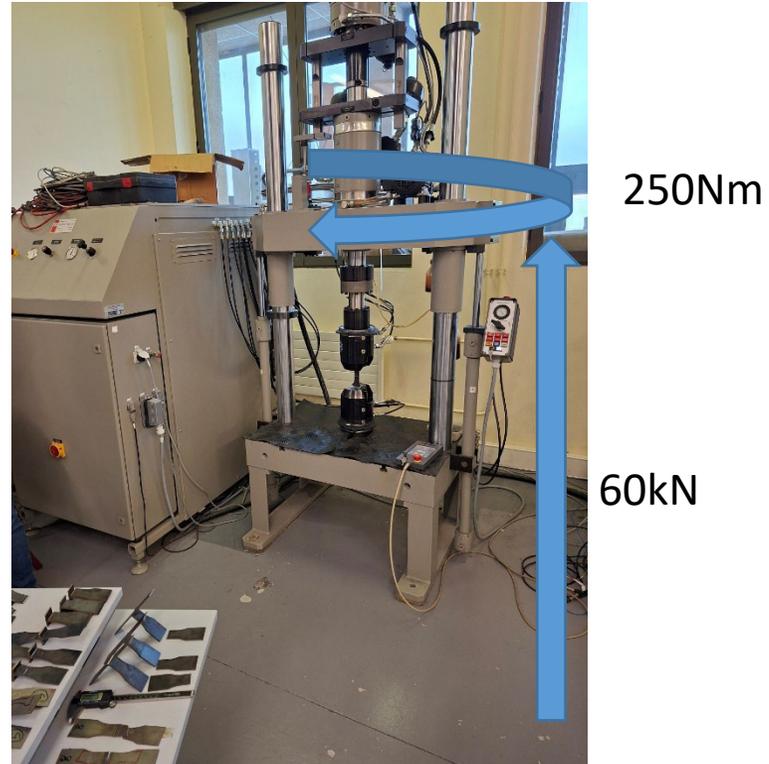
Influence of the crack plane asymmetry over G_{II} results in carbon epoxy ENF specimens

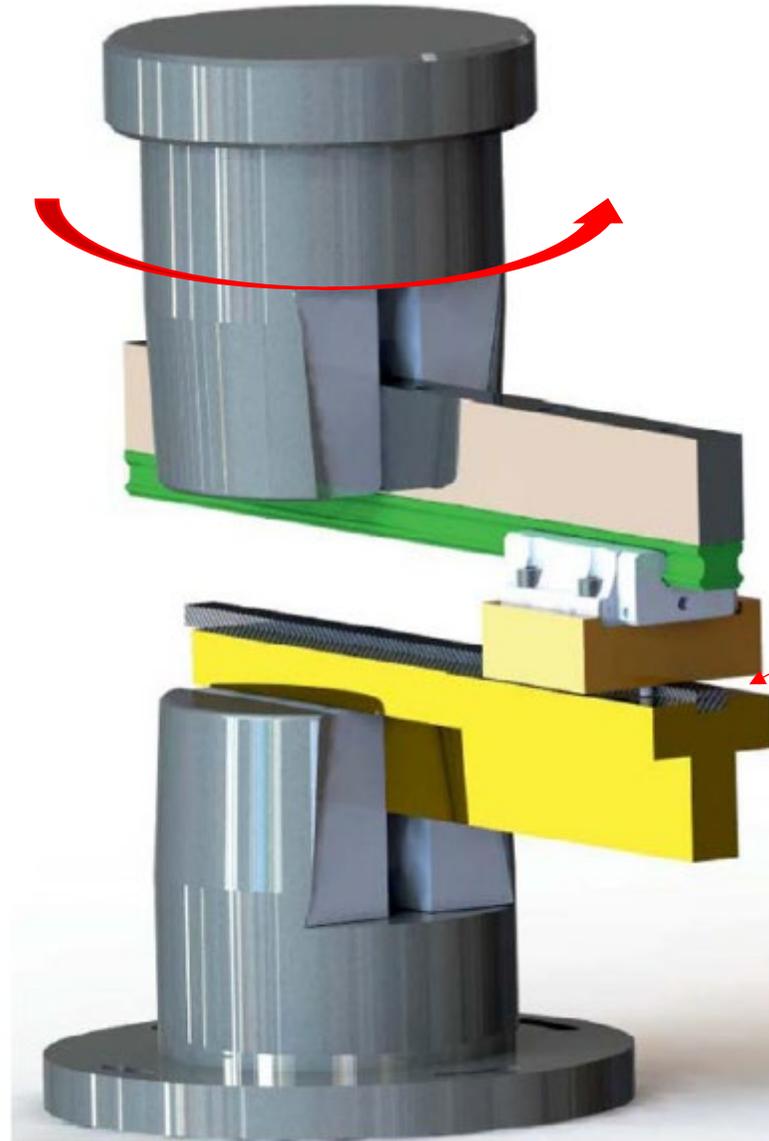
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Mode III ?





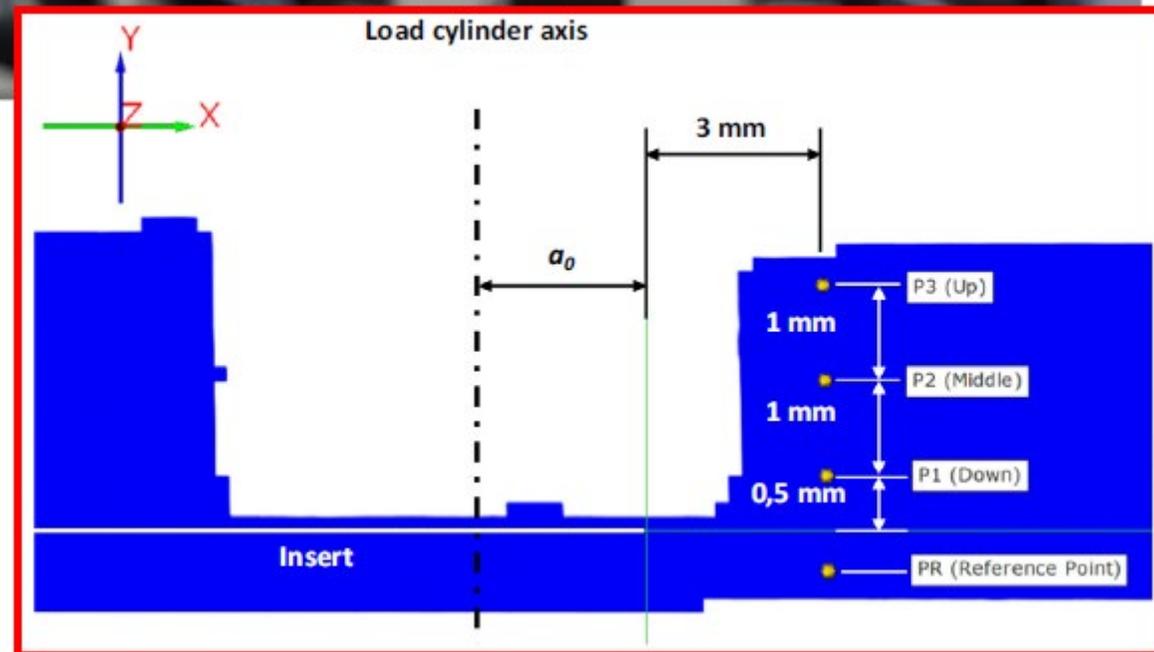
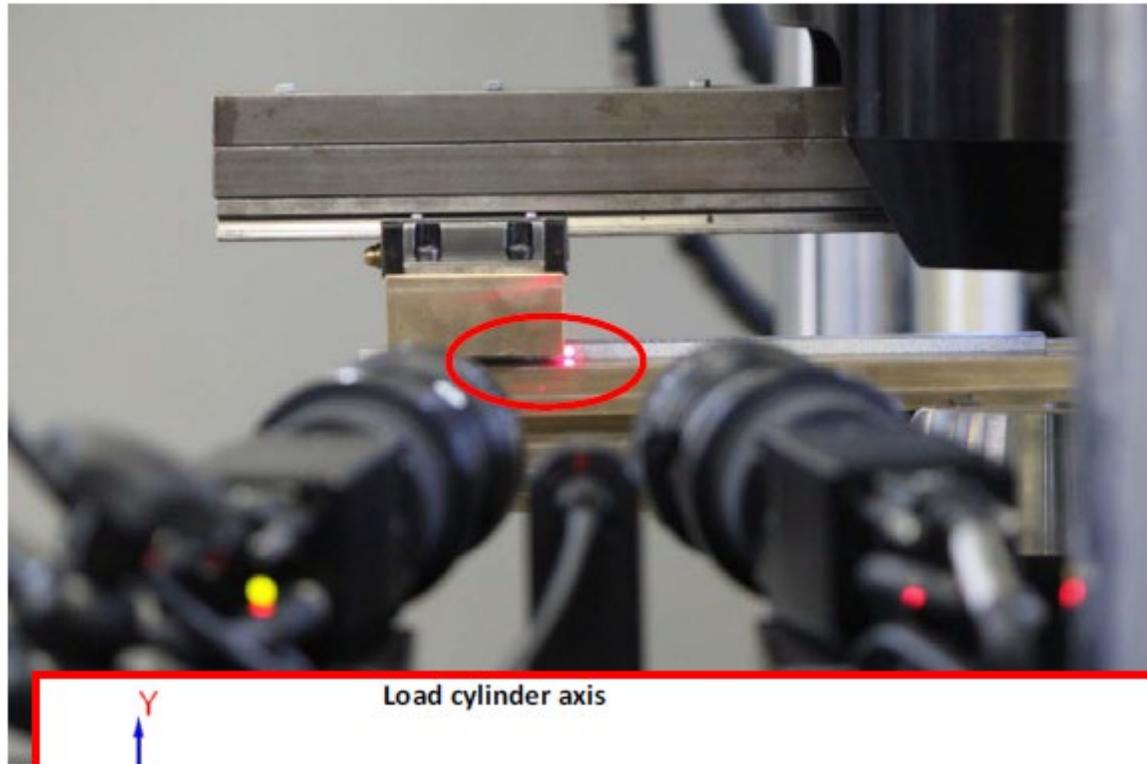
Specimen

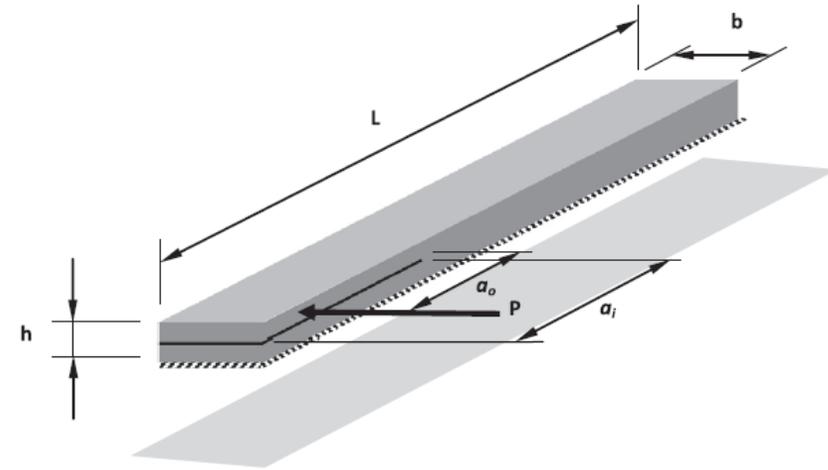
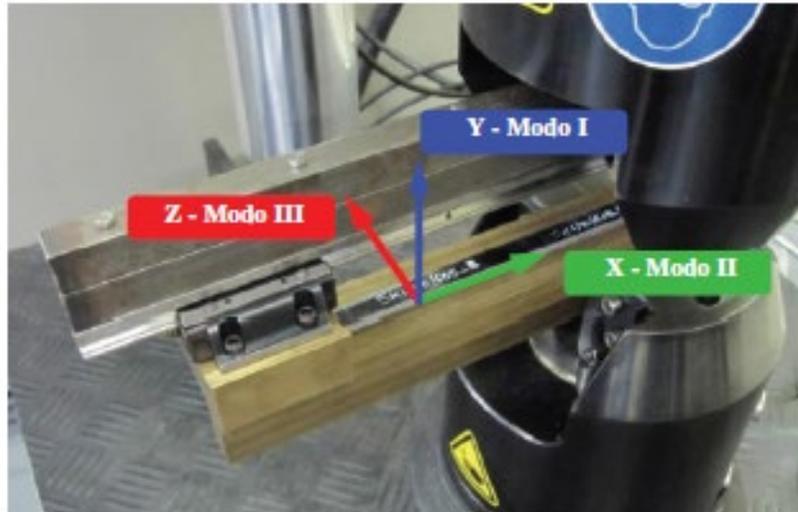


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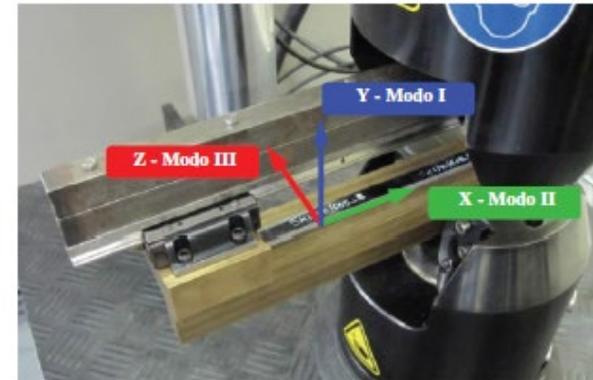
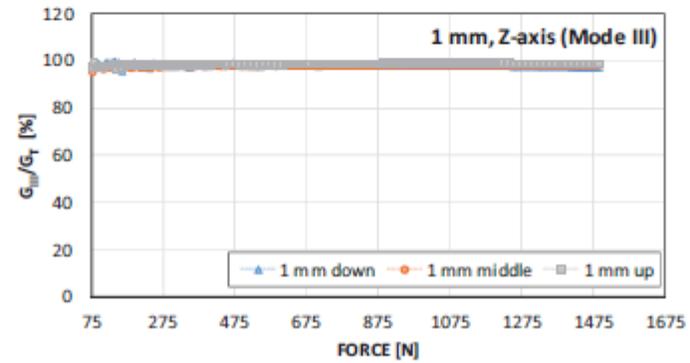
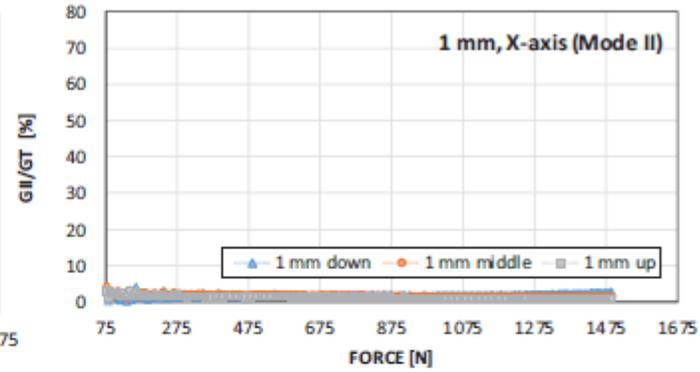
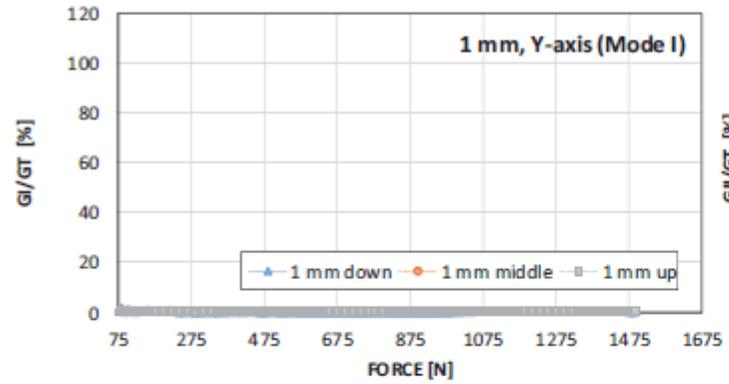


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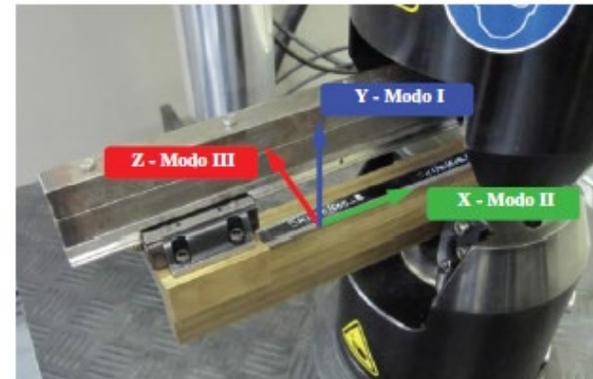
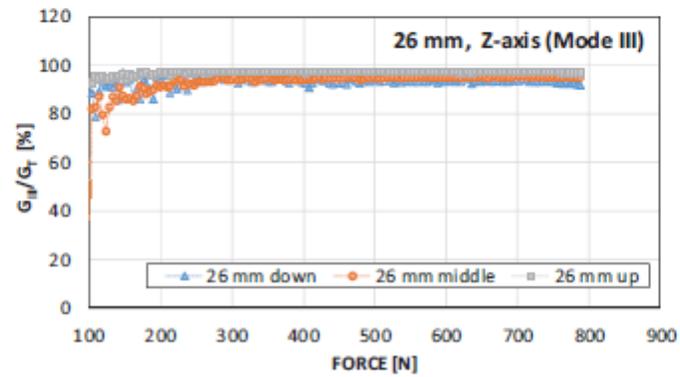
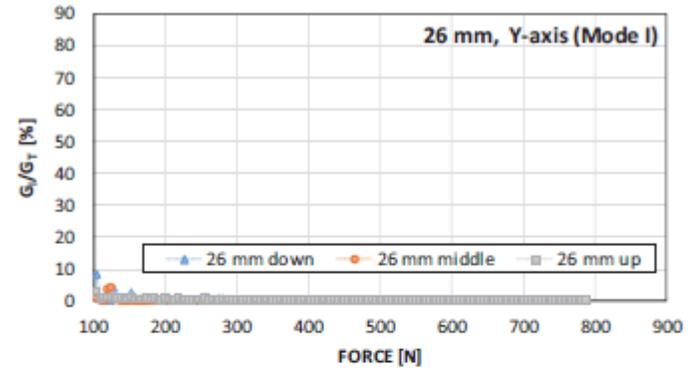
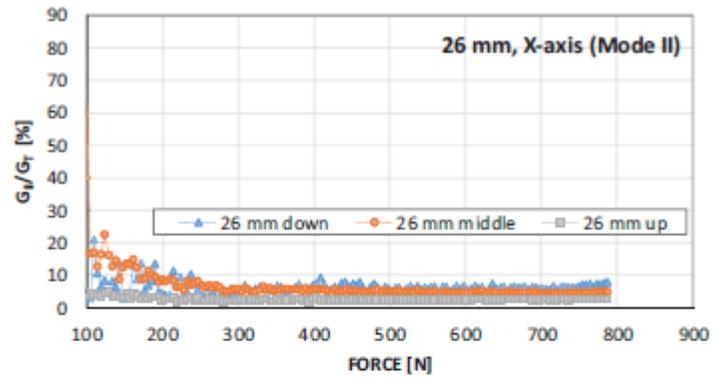




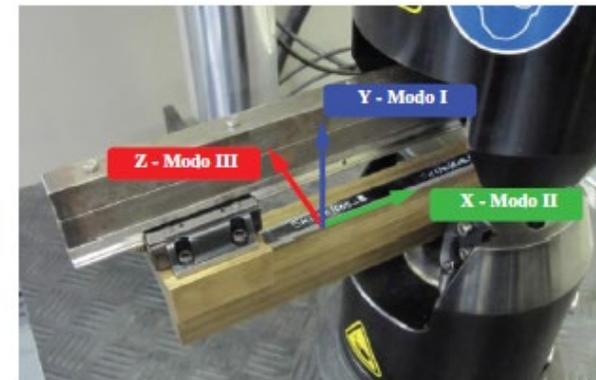
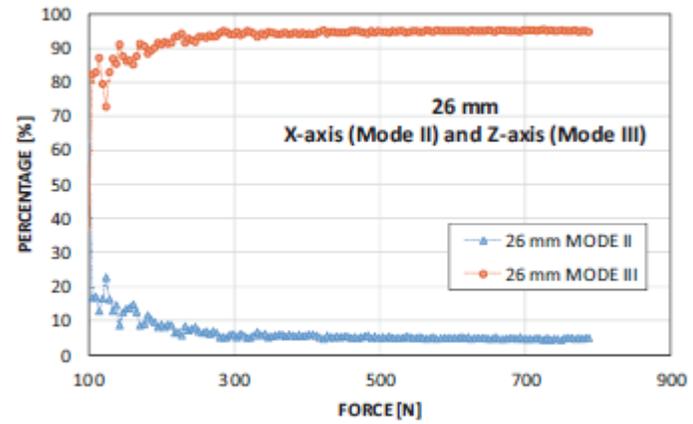
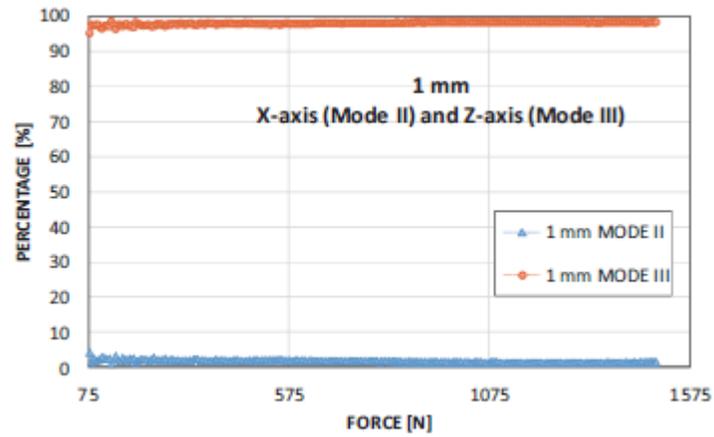
Percentages of mode III, II and I failure versus the load applied at a distance of 1 mm from the front of the insert.

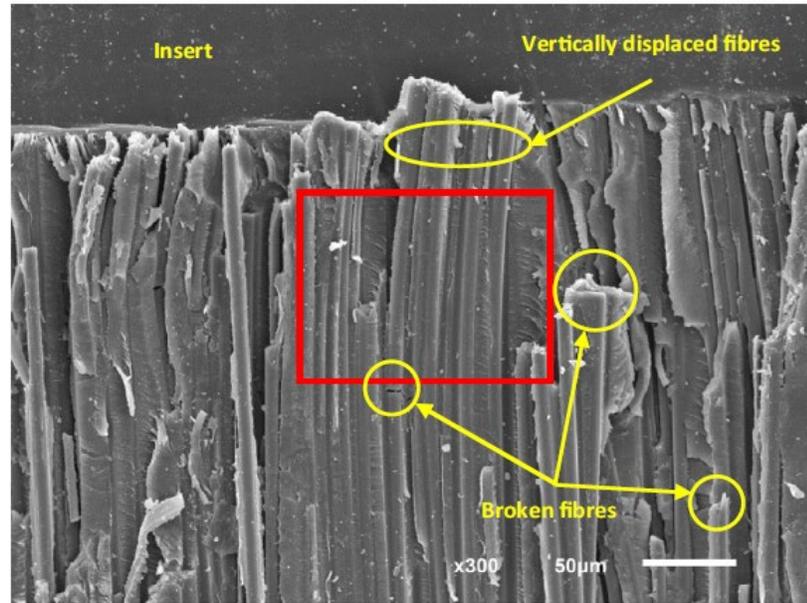


Percentage of mode III, II and I failure versus the load applied at a distance of 26 mm from the front of the insert.

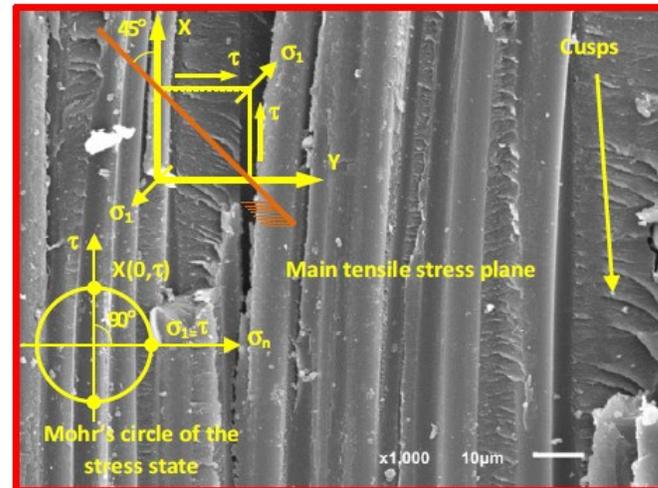


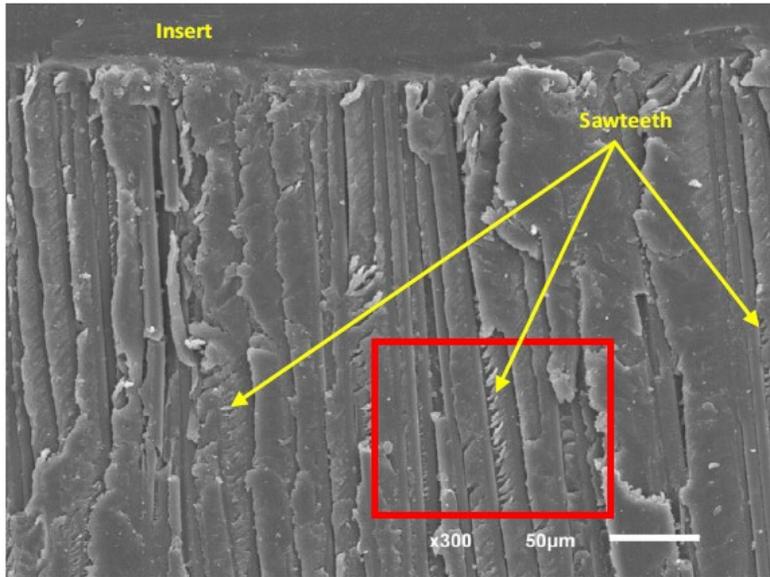
Displacements along the X- and Z-axes when the load was applied at 26 and 1 mm from the insert.



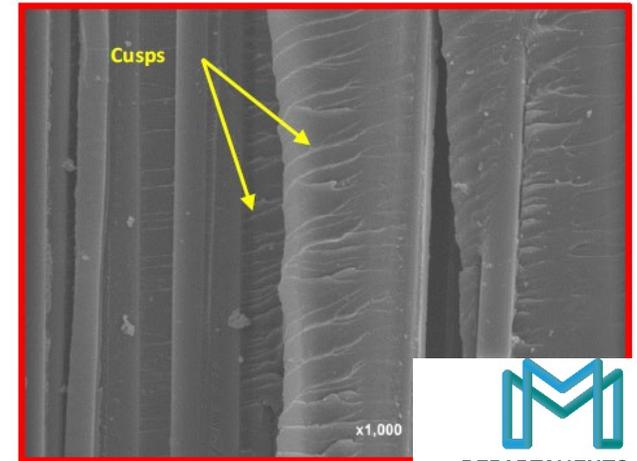
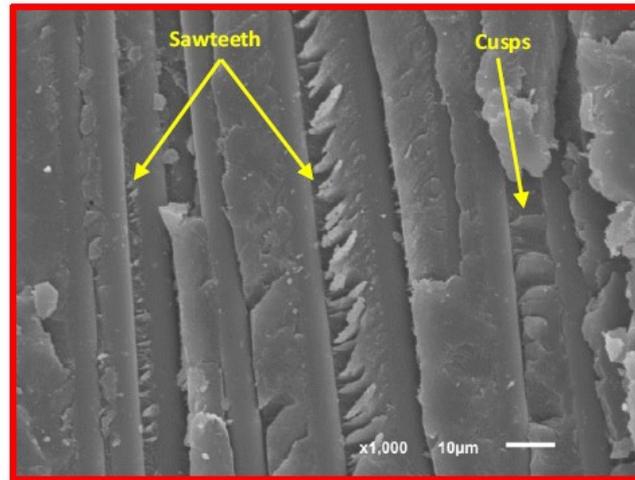
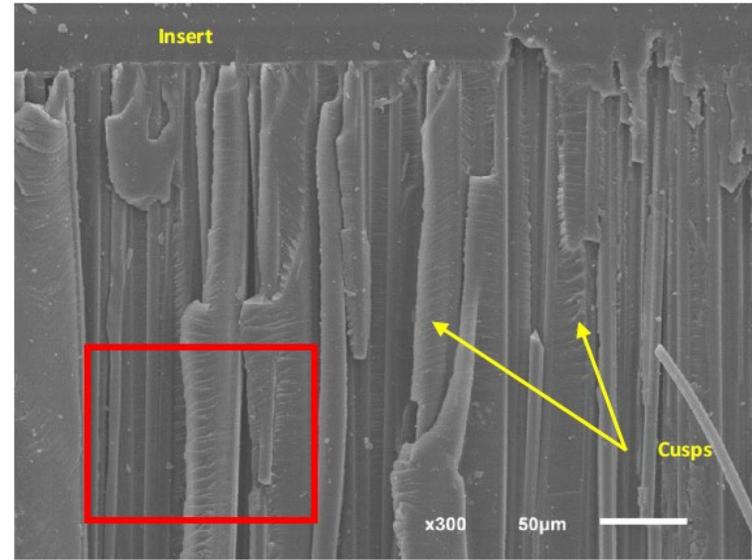


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Analysis of mode III interlaminar fracture toughness of laminated composites using a novel testing device

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Article

A new method for testing composite materials under mode III fracture

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Validation of the Longitudinal Half Fixed Beam method for characterizing mode III delamination of composite laminates

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