

Nanostructured Surface Preparation for Joining Dissimilar Materials

Disclosure Number

201403405

Technology Summary

The invention relates to material joining and more specifically to a surface treatment to improve the bond strength between joined dissimilar materials. The applications include, but not limited to any metal and carbon-fiber polymer composites, e.g. (1) metal to metal, (2) carbon fiber polymer composites (CFPC) and metal components, (3) CFPC to CFPC. The method is expected to increase the bond strength of the CFPC/adhesive interface. Additionally, surface treatment of substrate surface can be engineered to minimize the surface preparation cleaning processes, increasing industrial acceptance for high volume applications.

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