

Effect of various surface modification techniques on the wettability properties of shape memory alloys.

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Abstract:

In this work, the results of the characterization of shape memory alloy surfaces subjected to various thermo-mechanical modifications (among which chemical etching and laser surface texturing) are presented in terms of surface roughness and their effect on interaction with water, in view of evaluating ice-surface interaction. The results have highlighted a complex effect of surface morphology on water interaction in its two condensed states, which cannot be solely attributed to the average roughness value of the surface. Part of the activities presented in with work were financed through PRIN 2022 SMARTICE project.