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Dynamic response of aluminum corrugated sandwich subjected to underwater impulsive loading: experiment and numerical modelling

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Highlights

- FSI experiment and simulation are carried out to quantify response of corrugated sandwich panels to water-based impulsive loading.
- The effect of core height, intensity of impulses are investigated.
- Comparisons are conducted between water-backed and air-backed conditions.
- DIC is used to capture the in-situ response of sandwich plates.
- Quantitative relations are developed to provide guidance for design of structures to maximize blast resistance.

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