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New diagnostic method for evaluating penetration strength of rubber sheet by measuring electromagnetic induction

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Highlight

- A new diagnostic method for evaluating the penetration strength based on electromagnetic induction phenomena was established by considering the experimental results of the impact tests for rubber sheets during small impactor collisions.
- The impact force and specimen deformation were analyzed from the electromotive force generated in the coil when the impactor containing a magnet collided with a specimen.
- The penetration strength of the rubber sheet was determined from the impact-force history and the impact force-specimen deformation curve by considering the analyzed impactor behavior.

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