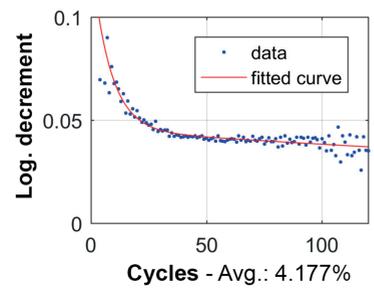
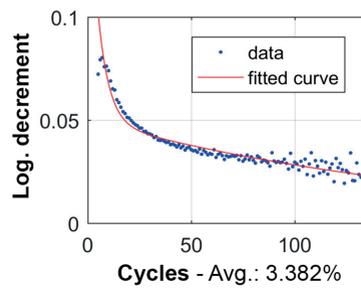
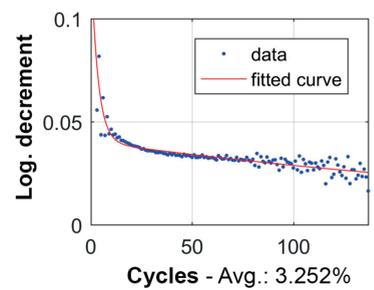
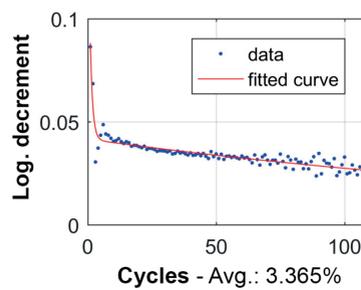


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INVESTIGATION OF THE DAMPING BEHAVIOUR OF BEECH MATERIAL

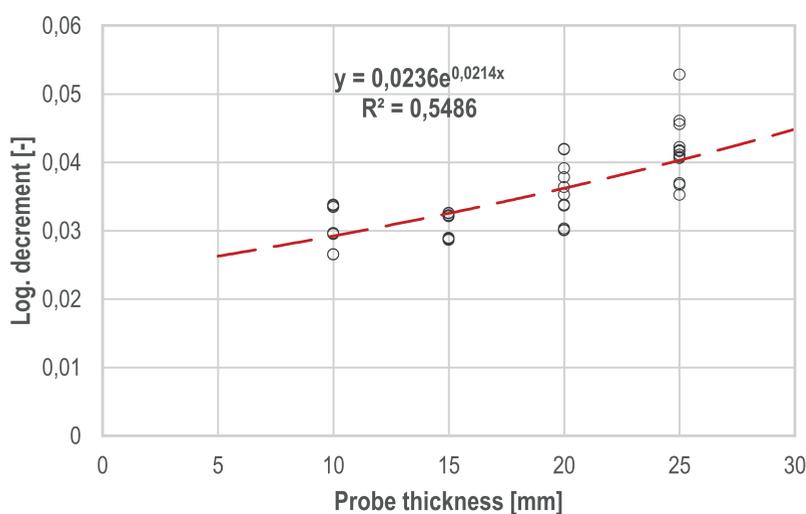


In order to produce a replicable set of measurement, a high-strength adjustable measurement frame was constructed. The frame itself was welded stiff to a thick steel sheet of 30 mm thickness, whilst a high-mass vise was used to clamp the wooden specimens.



The effect of the increasing thickness on the logarithmic decrement at 10 mm initial amplitude - notice the increase in the logarithmic behaviour. Upper left corner: 10 mm thickness, upper right corner: 15 mm thickness, lower left corner: 20 mm thickness, lower right corner: 25 mm thickness

The function of the mean logarithmic decrement over the thickness



After taking 12 measurement at each thickness (ranging from 10 mm to 25 mm) and measuring the mean logarithmic decrement at the same initial amplitude the decrement/thickness function could be determined. The logarithmic nature of the curve corresponds to the findings of LAZAN (1968).

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