

## Cracking eggs: Researchers measure the toughness of eggshell

Eggs break easily – but how easily exactly? Surprisingly, nobody knew until researchers at Trinity College Dublin in Ireland found a way to measure it. Prof David Taylor of the Trinity Centre for Bioengineering explained that eggs are actually very strong – try breaking one by squeezing it in the palm of your hand and you'll find it's almost impossible. The key to breaking an egg is to first make a small crack in it, then it falls apart. This sensitivity to cracks is measured by an engineering property called Fracture Toughness. The Trinity researchers found a way to measure this property for eggs and published their work in the scientific journal *Acta Biomaterialia*.

These findings will be very useful for the egg industry, which loses many eggs every year due to cracking during packing and transport. It will also help biologists to better understand how eggshell works. Remember that eggs need to break, otherwise the chick will never be born: and without chickens, there would be no more eggs!

**David Taylor**

*Trinity Centre for Bioengineering, Trinity College Dublin, The University of Dublin, Dublin 2, Ireland*

### Publication

[The fracture toughness of eggshell.](#)

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