《黑科技：瑞典科学家制造出人造蛛丝！》

导读:蜘蛛丝是自然界最强的材料之一，强度高、重量轻、可降解，是理想的材料之一。

Supple, light and biodegradable but stronger than steel: researchers said Monday they have succeeded in producing synthetic spider silk, one of nature’s strongest materials.

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Refined through the long process of evolution, the silk threads spun by spiders are 30 times thinner than a human hair and stronger even than Kevlar, a synthetic fibre used in making bullet-proof vests.

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Scientists have long strived to copy the unique properties of the threads -- essentially long chains of linked protein molecules.

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When spinning, the spider secretes a protein solution through a narrow duct, along which the acidity changes and pressure increases, causing the molecules to form chains.

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But spiders are difficult to farm, producing small quantities of silk, and with a propensity for eating each other.

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Now a team from Sweden said they have managed to copy the spider’s feat using proteins in E.coli bacteria and a "spinning apparatus" which mimics the pH changes that spiders use to make silk.

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"This allowed us for the first time to spin artificial spider silk without using harsh chemicals," study co-author Jan Johansson of the Swedish University of Agriculture Sciences in Uppsala told AFP.

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The threads are bio-compatible and may prove useful in regenerative medicine, the team said.

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