

# Innovation award for improved radio frequency plasma reactor

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An invention by researchers from Oxford's Department of Engineering Science won recognition from the Institute of Electrical Engineers at their inaugural Innovation in Engineering Awards recently. Professor John Allen and Dr Beatrice Annaratone won the Electrical Technologies category for their improved radio frequency plasma reactor. Plasmas are used in the manufacturing industry either to remove or to deposit material on various surfaces, with applications including the manufacture of electronic circuits and the production of films for solar cells.

The judging panel – which included internet pioneer Sir Tim Berners Lee and Alice Rawsthorn, director of the Design Museum, as well as leading figures from the engineering and technology industries – were impressed that the invention was based on a scientific phenomenon, called plasma-sheaf resonance, and was not just an incremental improvement on an existing process.

Commenting on the invention the judges said: 'This entry is distinguished by a high level of engineering innovation, combined with the essential tenacity required to move any innovative product from academic research to commercial exploitation. Following extensive experimental and theoretical work carried out at the Engineering Science Department of the University of Oxford, this innovation places the design and production of future plasma reactors on a firm scientific basis.'

The IEE Innovation in Engineering Awards recognise and celebrate excellence in engineering innovation across a range of industry sectors and engineering disciplines. Entries were judged on a number of factors including social and economic impact, novelty, and patentability. Professor Allen and Dr Annaratone were the only winners from a university rather than industry.

Source: University of Oxford

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