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Ultrasonic Nebuliser

Patent GB2542384

Atomisation using an ultrasonic standing wave

Developed for laboratory spray drying with potential adaptation for a range of spraying, nebulisation or atomisation applications across many industries.

James Hutton Limited is seeking interested parties to discuss licensing, purchasing and partnership

Novel ultrasonic nebuliser for problem fluids

Developed at the James Hutton Institute

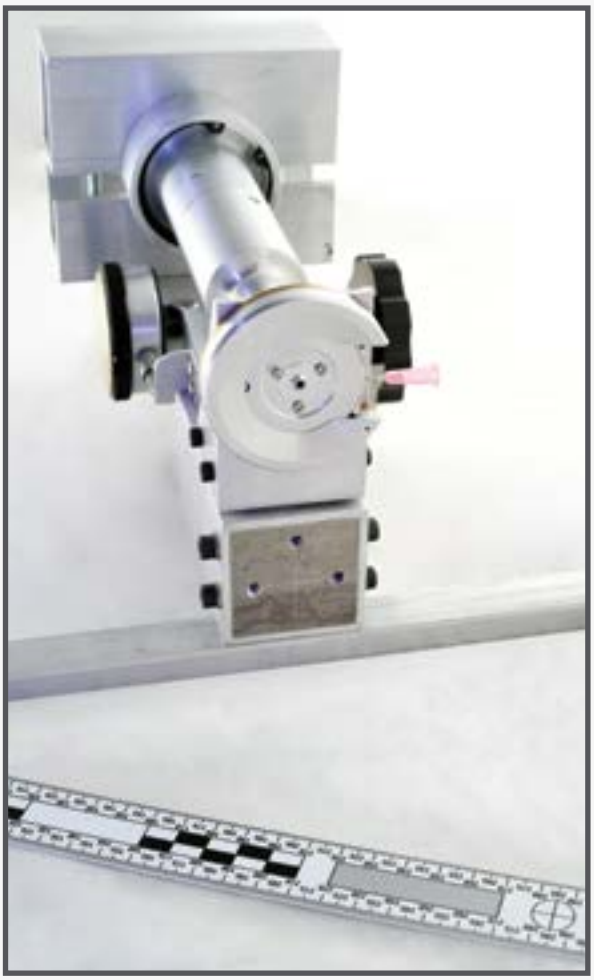
The atomiser assembly is described in patent application publication number GB2542384

The device uses a standing wave method to produce an intense acoustic field which causes the fragmentation of introduced fluids.

An important advantage of this approach is that the working fluid does not come into contact with any vibrating parts, with dispersion being achieved solely by the effects of high amplitude and high frequency air pressure differences.

This allows well-dispersed aerosols to be produced from suspension types that are often difficult to atomise, including viscous products, and it is believed that the concept used in the device may be capable of development for a wide range of applications that require nebuliser or spray technology.

The device was conceived and designed during an appraisal of methods for improving laboratory spray drying, a technique used at the James Hutton Institute for preparing random powder samples as specimens for analysis by X-ray powder diffraction[1].



[1] Hillier, S. Spray drying for X-ray powder diffraction specimen preparation. Commission on Powder Diffraction, International Union of Crystallography. Commission on Powder Diffraction [Newsletter No. 27], p. 7-9. 2002.

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