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Making light of it

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TAKE a pinch of zinc oxide powder, add a dash of energy and you've got one of the world's smallest and cheapest lasers.

Physicists have built various types of microlasers, but all rely on ordered structures, such as shaped microdiscs or a series of uniformly spaced layers of materials, and require expensive nanofabrication equipment. "Our way is much simpler and cheaper," says Hui Cao of Northwestern University in Evanston, Illinois. Over the past two years she has shown that clumps of disordered powder can scatter light waves coherently to build up laser emission. Now she has managed to make a laser with clumps of powder just a micrometre wide (Applied Physics Letters, vol 76, p 2997).

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