A random orbital drive system for a longitudinally pumped solid state dye laser

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Solid state dye lasers have been under investigation almost since the first observation of lasing in liquid dye media in the late 1968. We have been working on the unique system of a pulsed frequency doubled Nd:YAG longitudinally pumped solid state dye laser. The biggest problem with solid state dye media is "fatigue" of the dye. To solve this problem we have developed a novel electromagnetically translated air bearing system for producing random orbital motion of a solid state dye laser.