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| Title | Thermocapillary manipulation of droplets using holographic beam shaping: Microfluidic pin ball |
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| Abstract | We demonstrate that holographically generated optical patterns offer greater flexibility for the thermocapillary control of water droplets than Gaussian spots; droplets can be stopped in faster flows while using less optical intensity when the surface tension variations are created by line patterns instead of single spots. Further, experiments are performed making use of variable light patterns to achieve controlled droplet routing in a four-way cross microfluidic channel. Finally, multiple droplet storage is demonstrated as well as changing drop order. |
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