Tunable and storage potential wells using microring resonator system for bio-cell trapping and delivery

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Abstract

Bio cell manipulation is becoming area of importance and interesting. Meanwhile, the optical technique manipulation has been widely used to uncover fundamental aspects of molecular and biology. In this work, we propose the technique that can be used to trap/delivery molecules/bio cell by using the concept of dark solitons and potential well, in which the trapping force is introduced to manipulate the trapping tool. This optical technique has become a powerful tool for manipulation of bio-molecules. It has the unique ability to manipulate matter mesoscopic scales that has led to widespread application in biology.

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