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Generation of polymer nanowires by a pulsed laser irradiation

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Polymer nanowires have much attention for their excellent use in gas sensors, lasers, and organic field-effect transistors and so on. The production method of novel polymer nanowires is quite important for realizing future nanotechnology applications. Numerous methods of fabricating polymer nanowires have been developed, including wetting of porous alumina templates, electrospinning, and solution chemistry methods, so far. However in their case, it is difficult to synthesize the polymer nanowires with the diameter of several tens nm and to introduce some functional nanomaterials in the polymer nanowires. In this presentation, it will be shown the advanced fabrication method of the functional polymer nanowires by a pulsed laser irradiation and also discuss the generation mechanism.

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