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## Laser-interference fabricating micro/nanostructures and its application

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Micro/nanostructures structures have been researched due to many potential applications in improving properties on surface. However, in the fabrication of micro-/nanostructures on surface, there are always great challenges in regular arrays, good controllability, low cost, and high throughput. Here, we present a route for the accurate design, low cost and highly controllable fabrication of micro/nano-structures based on laser-interference lithography, forming a series methods including laser-interference-reduced back/forward-transfer, direct writing patterns, and additive manufacturing. These micro/nanostructures of Ag/Au can demonstrate the SERS property, and its can also show single or complex function such as anti-reflection, self-cleaning, anti-resistance and anti-icing on the surface. In addition, this method can also be used to explore additive manufacturing on micro- and nano scale for high throughput voxels. Finally, We offer a cost-effective solution for mass production in micro/nano-structures with single and complex functions, and additive manufacturing on micro and nano scale with a large number of voxels.



**Short Bio:**

**Zhankun Weng** received his bachelor and master degrees from Changchun University of Science and Technology, his PhD degree in Microelectronics and Solid State Electronics from Dalian University of Science and Technology, China. He is a professor of Foshan University, China.