**Laser-fabricating complex hierarchical micro/nanostructures**

*Peking University, China*

**San Zhang**

**Email: xxxxxxxxxx**

Complex surface structures have stimulated a great deal of interests due to many potential applications in surface devices. However, in the fabrication of complex surface micro-/nanostructures, there are always great challenges in precise design, or good controllability, or low cost, or high throughput. Here, we present a route for the accurate design and highly controllable fabrication of surface quasi-three-dimensional (quasi-3D) structures based on a thermal deformation of simple two-dimensional laser-induced patterns. A complex quasi-3D structure, coaxially nested convex–concave microlens array, as an example, demonstrates our capability of design and fabrication of surface elements with this method. Moreover, by using only one relief mask with the convex–concave microlens structure, we have gotten hundreds of target patterns at different imaging planes, offering a cost-effective solution for mass production in lithography and imprinting, and portending a paradigm in quasi-3D manufacturing.

**Short Bio:**

**San Zhang** received his PhD degree in Applied Physics from Peking University, Japan. He is a professor of Peking University, China.