



## **Table-top Laser-driven microwire for Intense Terahertz radiation**

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### **Abstract:**

We propose a novel table-top intense terahertz source based on a high-intensity femtosecond laser-driven microwire. An intense transient radial electric field instantaneously created on the wire after laser irradiation can guide the helical motion of the electron bunch along the wire and induce periodic THz emission. We have presented that this approach can produce a well directional and intense THz source with a high conversion efficiency of up to 1% by using a sub-TW-class femtosecond laser facility and central frequency easily tunable in the range 0.1~0.4 THz by adjusting the diameter of the wire.

### **References**

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