

## **LASER BEAMS METHODS AND SYSTEMS**

### **ABSTRACT**

Methods and apparatuses for manipulating and modulating of laser beams. The methods and apparatuses enable activating and deactivating of laser beams, while the laser systems maintain their operating power. Further, a hybrid pump module configured to be coupled to an optical fiber having a core and at least one clad, comprising: at least one focusing lens in optical with the optical fiber; plurality of diode modules, each configured to output a multi-mode beam in optical path with the clad; and at least one core associated module, in optical path with the core, configured to provide selected functions. Further, apparatus and methods configured for frequency doubling of optical radiation.

Fig. 2