



Contribution ID: 196

Type: **Poster Presentation**

## Generation of a Laguerre-Gaussian TEM<sub>01</sub> mode in a monolithic microchip laser

*Thursday, 14 July 2011 17:00 (2 hours)*

We explore a method in the selection of a specific higher-order mode through judicious shaping of the pump light to create a high modal overlap with the desired mode. To demonstrate this principle, we create a donut-shaped pump profile in the focal plane of a converging lens by use of a beam shaping element. This pump profile is used to longitudinally pump a monolithic microchip laser and a plano-concave resonator cavity where we achieve a TEM<sub>01</sub> output with powers of 12 mW and 14 mW at slope efficiencies of 17

**Level (Hons, MSc, <br> &nbsp; PhD, other)?**

MSc

**Consider for a student <br> &nbsp; award (Yes / No)?**

Yes

**Would you like to <br> submit a short paper <br> for the Conference <br> Proceedings (Yes / No)?**

No

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**Session Classification:** Poster2

**Track Classification:** Track C - Lasers, Optics and Spectroscopy