

sci.optics: Re: How can I couple the infrared light from an ordinary bulb into a single mode fibre?

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From: Louis Boyd (boyd_at_ap0.sao.arizona.edu)

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Alu wrote:

- > *Thank you for all of your replies. Actually, I want couple the light,*
- > *with the wavelengths from 1200nm to 1600nm, into a G652 fibre. But the*
- > *ordinary LED's bandwidth is not that wide. So if I don't use multiple*
- > *LEDs to cover the range, how can I do it? Thank you.*

A refocused xenon short arc lamp would produce the highest continuous (time and wavelength) energy density of any practical source I'm aware of. Melting the end of the fiber from the energy absorbed in the cladding will set the upper limit of the amount of power you can couple.

Bandpass and spatial filtering and perhaps liquid cooling of the fiber end could raise the level where damage occurs.

How much energy do you actually need in the fiber core across that bandwidth?