

# **New Amorphous Oxide Hosts for Erbium-Doped Fiber Amplifiers Applications**

In a method of amplifying optical input signals over a wide bandwidth, the optical input signals are applied to an optical waveguide made from a rare-earth-doped amorphous material (e.g., erbium-doped yttrium aluminum oxide material). The optical input signals include optical signals having wavelengths over a range of at least 80 nanometers, and, preferably, over a range of at least 160 nanometers. Pump light is applied to the optical waveguide to cause the waveguide to provide optical gain to the optical input signals. The optical gain causes the optical signals to be amplified within the waveguide to provide amplified optical signals over the extended 80-160-nanometer range, including, in particular, optical signals having wavelengths at one end of the range and optical signals having wavelengths at a second end of the range.

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## **Patents**

- Published Application: [WO200210801A1](#)
- Published Application: [20030112499](#)
- Published Application: [20030086154](#)
- Published Application: [20040246569](#)
- Published Application: [20040246570](#)
- Published Application: [WO200210801](#)

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