

The Ultimate Tool for Passive and Active Fibers Devices

Wouldn't you like to

- *quantitatively* understand fiber lasers & amplifiers and passive fiber devices
- profit from competent support
- reduce trial & error in prototype development
- minimize your development cost
- optimize time to market

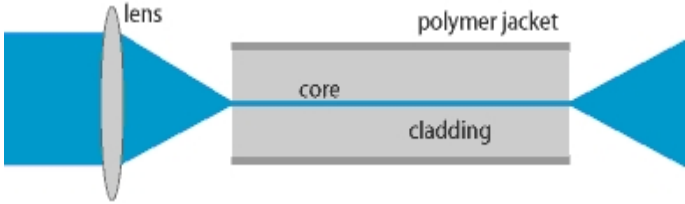
RP Fiber Power is a powerful modeling software for designing and optimizing fiber devices – in particular, fiber amplifiers and lasers as well as other types of waveguide lasers, but also fiber couplers, multi-core fibers, helical core fibers and tapered fibers.

Ultrashort pulse propagation can also be studied, for example in fiber amplifier systems, mode-locked fiber lasers, telecom cables and automatically optimized pulse compressors.

This software is a must-have for anyone seriously dealing with fiber devices – be it in industrial development, scientific research or in education. Its user interface combines uttermost flexibility with an easy start. It is therefore equally well suited for efficient routine checks and for most sophisticated simulation work.

Applications

RP Fiber Power can be applied to analyze and optimize a wide range of devices:

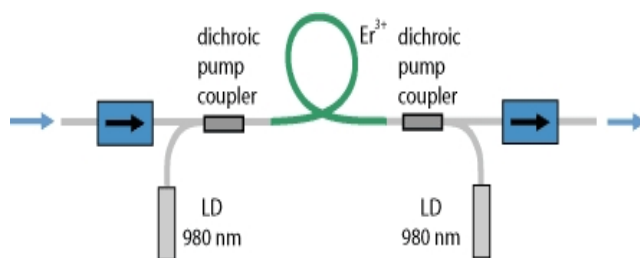
Devices	Example for Applications
single-mode and multimode fibers 	calculate mode properties such as amplitude distributions, effective mode areas, effective indices, chromatic dispersion; calculate fiber coupling efficiencies; simulate effects of bending, nonlinear self-focussing or gain guiding on beam propagation, higher-order soliton propagation

**fiber couplers, double-clad fibers, multi-core fibers,
planar lightwave circuits**



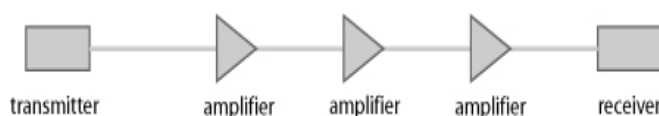
simulate pump absorption in double-clad fibers, study beam propagation in fiber couplers, light propagation in tapered fibers, analyze the impact of bending, cross-saturation effects in amplifiers, leaky modes, etc.

fiber amplifiers



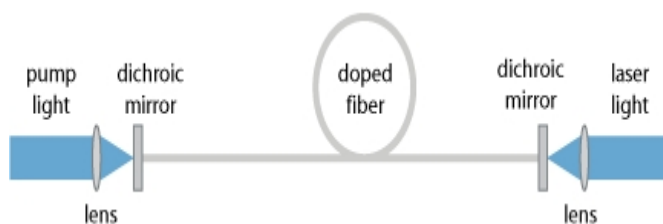
study the gain and saturation characteristics (continuous-wave or pulse amplification), energy transfers in erbium-ytterbium-doped amplifier fibers, influence of quenching effects, amplified spontaneous emission etc. in single amplifier stages or in multi-stage amplifier systems

fiber-optic telecom systems



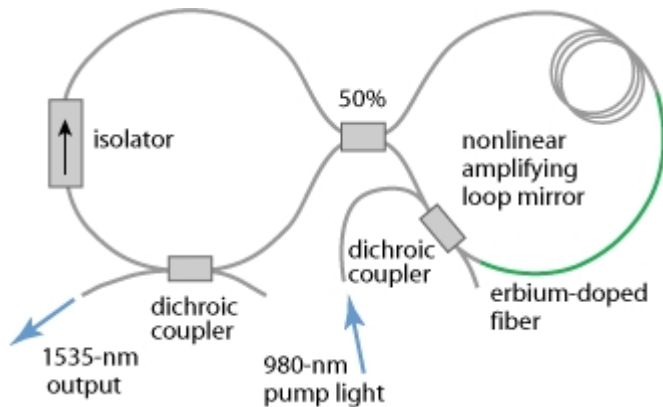
analyze dispersive and nonlinear signal distortions, impact of amplifier noise, optimize nonlinear management and placement of amplifiers

fiber lasers



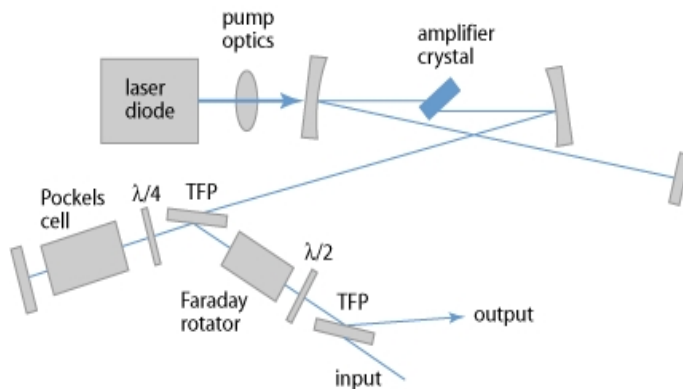
analyze and optimize the power conversion efficiency, wavelength tuning range, Q switching dynamics

ultrafast fiber lasers and amplifiers



study pulse formation mechanisms, stability ranges, impact of nonlinearities and chromatic dispersion, parabolic pulse amplification, optimum dispersive pulse compression, feedback sensitivity, supercontinuum generation

pulsed and ultrafast bulk lasers and amplifiers



study Q switching, the mode-locking behavior, find the required characteristics of saturable absorbers, analyze the feedback sensitivity, chirped-pulse amplification study stability limits of regenerative amplification

Get more information:

- Learn about the software's features and the used physics model.
- See also the video demos and our large selection of case studies!
- Download the RP Fiber Power PDF brochure with 39 pages.
- See also the frequently asked questions.

If you have any further questions or need a quote, just contact us.