

Portable Diode Pumped Femtosecond Lasers (Paperback)

By David A Jones

Biblioscholar, United States, 2012. Paperback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****.Ultrashort pulse laser technology is receiving increased focus around the world, and as the size and expense are reduced, their applications will receive more attention. This thesis discusses the work to make ultrashort pulsed lasers smaller and more economical. Possibilities of these pulses include creation of terahertz radiation, characterization of materials through ablation, enhanced ring laser gyroscopes, ultrastable atomic clocks and fast ignition fusion. While sharing many of the basic properties of normal beam optics there are some specific properties in both creating and exploiting those pulses that must be understood. The discussion will focus on mode locking as the primary way of producing ultrashort pulses. Particular attention will be paid to intracavity group velocity dispersion and how to correct it inside the cavity. The discussion then turns to the basis of our work including initial cavity design and component selection with a focus on the specific crystals used in the solid state laser. The primary focus for the rest of the experiment setup is based on the evolution of the designs in order to get the systems lasing and then mode locked....



Reviews

This type of publication is almost everything and helped me looking forward and much more. I am quite late in start reading this one, but better then never. You wont really feel monotony at whenever you want of your own time (that's what catalogs are for relating to if you ask me). -- **Prof. Buddy Leuschke**

Merely no phrases to describe. It generally does not price an excessive amount of. Its been designed in an extremely simple way in fact it is simply soon after i finished reading through this pdf through which really altered me, modify the way i really believe. -- Natasha Rolfson