Lubin Initiates Laser–Matter Interaction Studies

University of Rochester Assistant Professor Moshe J. Lubin initiates laser–matter interaction studies using ruby, and Nd:glass lasers. Eastman Kodak Company abandons their medical laser line and Lubin obtains surplus Kodak lasers and electronics.

Many different types and sizes of Nd:glass rod amplifiers were developed and tested in the late 1960s and early 1970s. The first Rochester Nd:glass disk amplifier was built under a Los Alamos National Laboratory (LANL) contract.

Early Lasers

The earliest lasers at the University of Rochester emphasized short-pulse (<100 ps) capability.

Nd:Glass Disk Amplifier

David Lonobile works on an early Nd:glass disk amplifier

Early mode-locked Nd:glass oscillator-amplifier system in the Hopeman Engineering Building

ALPHA Laser

The ALPHA Laser operated in the Hopeman Engineering Building on the University of Rochester River Campus for several years.

Q-Machine

Laser-produced plasma and Q-machine plasma interaction (collisionless shock waves)

Laser Fusion

Laser fusion became a focus of the Rochester work in the late 1960s. Classified meetings were held at Lawrence Livermore National Laboratory (LLNL) including participation by R. Kidder, J. Nuckolls, J. Dawson, and M. Lubin.