



1960-2010 Celebrating 50 years of the laser

Light Amplification by Stimulated Emission of Radiation

In 1960 (16 May 1960) Theodore Maiman constructed the first laser source: the ruby laser. It was a key scientific achievement in a long history of theoretical and experimental studies of the amplified stimulation of radiation. It was in 1950 when Charles Townes and Joseph Weber in the United States and Nikolay Basov and Alexander Prokhorov in the former Soviet Union independently proposed the use of stimulated emission to amplify microwave-frequency signals. Construction of the laser gave rise to an exponential increase on the scientific publications related to laser sources. Historically, the first text book on the laser was published by Bela A. Lengyel in 1962 and the subject was introduced in academic physics programs.

Since then, research on lasers and their applications have seen dramatic expansion in an incredible short period of time. New discoveries make possible the construction of highly coherent laser sources that are more powerful and ray in a wider range of the optical band. The technological links of the laser research has been proved by the great expansion of its use for industrial, biomedical, chemical, physical, biological and optical communications applications among emerging examples, with a key connection with global and local economies.

ICO would like to share this unique anniversary with the world optics and photonics community. (Maria L. Calvo, ICO President).