

Discovery of the laser: Historical aspects

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The main steps undertaken by the mankind towards the discovery of the laser are reviewed, starting from the development of quantum theory of radiation by Albert Einstein in 1917, first demonstration of stimulated emission by R. C. Rutherford in 1947, invention of the MASER (Microwave Amplification of Stimulated Emission of Radiation) by Charles Townes at Columbia University and Nikolai Basov and Alexandr Prokhorov at the Levedev Physical Institute in 1951, invention of the first working laser based on ruby by Theodore Maiman at Hughes Research Laboratories in 1960, followed by registration of two commercial laser companies in 1961, namely of Trion Instruments and Spectra-Physics. The main achievements in subsequent development of lasers along with their applications in various fields of human activities will be reported.

