

## Optics in China: past, present and future

Fuxi Gan

Shanghai Institute of Optics and Fine Mechanics, Chinese Academy of Sciences  
P.O.Box 800-211, Shanghai 201800, China

### ABSTRACT

In this paper a very brief review of historical development of optical science and technology in China is presented. More attention has been paid on Modern Optics, which developed since 1950s.

The recent development of optical science and technology in following fields are introduced.

1. Optical engineering and instrumentation  
(tracking theodolites, high speed cameras, satellite laser ranging systems, satellite flying attitude control, cameras for remote sensing, astronomical optical instrument)
2. Applied optics  
(adaptive optics, optical metrology, infrared optics, optical processing, optical holography)
3. Laser science and technology  
(ultrashort pulse lasers, UV-X ray lasers, high power laser facilities and laser fusion, laser isotope separation)
4. Laser and nonlinear materials  
(rare earth elements doped laser glasses and crystals, tunable laser crystals, borate series and organic nonlinear crystals)
5. Optoelectronic science and technology  
(Optical communication, optical data storage, optical computing)

The current situation and developing prospect of optical and optoelectronic industry in China are presented. Furthermore it points out that the optical industry could be developed vigorously only if products development capacity is enhanced and new products industrialization is heightened.

The main research and education institutions in the optics field in China, as well as the Chinese Optical Society (COS) are introduced.