

Promising trends of telescope optical system

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Abstract. Currently, telescope systems are widely used in various fields, such as agriculture observation, military detection, space exploration and video surveillance system. This article is devoted to the promising trends in telescope optical system development along with the tendencies in modern science and technology.

Trends of system design for telescope

Sometimes there is a need in a larger telescope diameter. However, the enlargement of a telescope diameter is challenging. A possible solution can be the use of many smaller lenses to combine the main mirror and to get a larger diameter, such as Keck Telescope possesses.

Therefore, we can combine the traditional telescope with visible light as a source and different elements including optical components for the system to be widely used and meet requirements in various fields. We can expect the universal application for telescopes, for example, in watch, mobile phone, glasses, and other portable devices. Moreover, it is possible to connect a telescope with recent internet and cloud calculation technology increasing its social features. For professional application, telescope systems should be combined with elements by different methods, change the structure of a system, make more precise machining of materials and its surfaces to face different environments and resist severe conditions during space missions in future.

Conclusion

The innovation for telescope systems is crucial in the long run. From the development of the telescope, we know the optical system is one of the most important parts in a telescope structure. With the progress and development of science and technology, the requirement for a telescope is not only more precise parameters, but also the fusion of various ideas and methods with advancing technologies. The telescope technology should become more accessible to ordinary people for improving their life quality.

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