



Focusing Diffraction Gratings Element with Advanced Aberration Control and Wavefront Transformation

Description

This new type of focusing diffractive element can disperse light in such a way that all directions of dispersed light are all parallel to a single plane (dispersion plane). Moreover, it can focus or de-focus diffracted light in the direction perpendicular to the dispersion plane. The device is composed of a diffraction grating with grooves in the form of identical equidistant arcs.

Features and Benefits

- The optical element can disperse light in a manner similar to that of a straight groove diffraction grating in one plane, and at the same time focus (or de-focus) diffracted light in the direction perpendicular to the dispersion plane.
- The focusing mechanism has unique properties in terms of wavelength dependence and focal distance vs. diffracted angle as the focal length for a fixed wavelength does not depend on the incident or diffracted angle.

Applications

- Spectrometers
- Optical Processors
- Remote Sensors

For More Information

If you are interested in more information or want to pursue transfer of this technology, GSC-14725-1, please contact:

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