

Recent advances of light-field modulated operation in laser-induced breakdown spectroscopy

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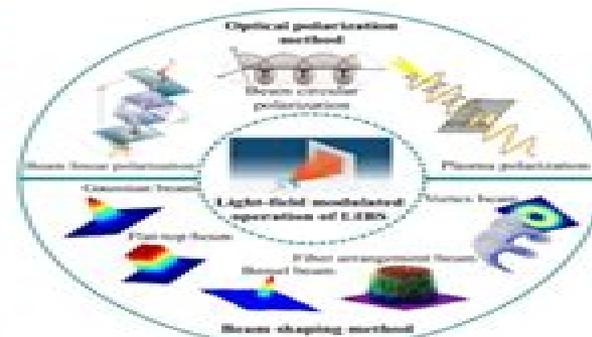
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ABSTRACT

The simplicity and low-cost way to improve qualitative and quantitative analytical performance has always been a crucial concern for laser-induced breakdown spectroscopy (LIBS), and many scientists have been engaged in this evolving research direction. In this review, we investigated an update on recent developments in light-field modulated operation in LIBS. It covered a brief description of LIBS, optical polarization, and beam shaping. Here, the optical polarization is divided into laser beam polarization and plasma polarization. In addition, the methodology and development of light-field modulated LIBS were summarized and discussed. Finally, the existing problems with light-field modulated LIBS were presented, along with some of their own insights and the future direction of their development. This review will provide a guideline for LIBS researchers with basic knowledge, which is very useful in the signal optimization of LIBS research and applications.

Keywords laser-induced breakdown spectroscopy, light-field modulated, laser beam polarization, plasma polarization, beam shaping



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Advances In Laser Light Spectroscopy

Rosina Ehmann



Advances In Laser Light Spectroscopy:

This book delves into Advances In Laser Light Spectroscopy. Advances In Laser Light Spectroscopy is an essential topic that needs to be grasped by everyone, ranging from students and scholars to the general public. The book will furnish comprehensive and in-depth insights into Advances In Laser Light Spectroscopy, encompassing both the fundamentals and more intricate discussions.

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