Photonics Materials for the New Millennium

Peter Kazansky*

Optoelectronics Research Centre, The University of Southampton
Southampton SO17 1BJ, UK
E-mail: pgk@orc.soton.ac.uk

Information technology will shape the world in the 21 Century. It has already begun to affect everything from our personal lives to global management. The transformation is a result of being been able to couple computers to high bandwidth optical telecommunication networks.

The role of material research has been crucial in the development of three optical technologies of the emerging information revolution: semiconductor lasers, optical fibres and optical amplifiers. The discovery and optimization of new photonic materials is vital in the exploitation of new optical phenomena and the development of optical devices and systems.

Recently structured photonic materials have created new opportunities for advanced optical technologies. Continued advances in photonic networks will depend on continued reduction in the cost of photonic components, increased functionality and increased levels of integration.

Improved nonlinear optical materials, novel nonlinear fiber devices and a better understanding of light-matter interactions are still needed to cultivate the technology's success and widen its impact. As we move into the New Millennium, breakthrough capabilities will be achieved through engineered semiconductor, dielectric and nonlinear optical materials.

次世代フォトニクス材料・デバイス シンポジウム

講演予稿集

Abstracts of the
Symposium on Next-Generation
Photonics Materials and Devices

1998年12月8-9日
けいはんなプラザ

December 8-9, 1998
Keihanna-Plaza

ERATO
Hirao Active Glass Project

KYOTO UNIVERSITY VENTURE BUSINESS LABORATORY
KYOTO JAPAN

科学技術振興事業団・平尾誘起構造プロジェクト
京都大学ベンチャー・ビジネス・ラボラトリー

Hirao Active Glass Project, Japan Science and Technology Corporation
Kyoto University Venture Business Laboratory