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Sommario/riassunto

The challenge for producing "invisible" electronic circuitry and opto-electronic devices is that the transistor materials must be transparent to visible light yet have good carrier mobilities. This requires a special class of materials having "contra-indicated properties" because from the band structure point of view, the combination of transparency and conductivity is contradictory. Structured to strike a balance between introductory and advanced topics, this monograph juxtaposes fundamental science and technology / application issues, and essential materials characteristics versus device a