
CHAPTER 36

OPTICAL PROPERTIES OF SEMICONDUCTORS

Paul M. Amirtharaj and David G. Seiler

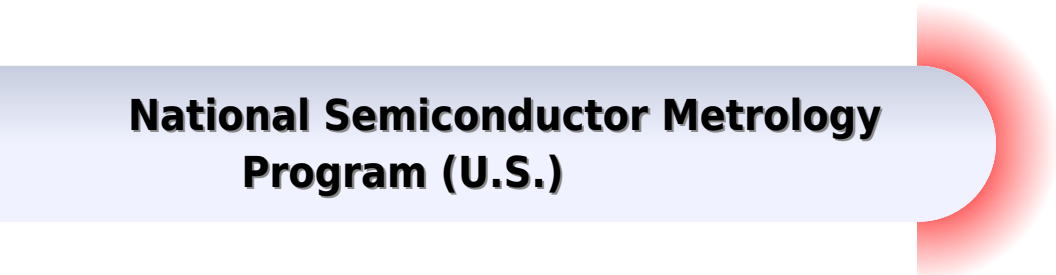
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36.1 GLOSSARY

A	power absorption
B	magnetic field
c	velocity of light
D	displacement field
d	film thickness
E	applied electric field
E_c	energy, conduction band
E_{cb}	exciton binding energy
E_g	energy band gap
E_{H1}	hydrogen atom ionization energy = 13.6 eV
E	electric field
E_L^z	Landau level energy
E_v	energy, valence band
e_i	ionic charge
g^*	effective g-factor
K	phonon wave vector
k	extinction coefficient
k_B	Boltzmann's constant
k	electron/hole wave vector
L_{cp}	coupled LO phonon-plasmon frequency
m_e^*	electron effective mass
m_h^*	hole effective mass

Chapter 36 Optical Properties Of Semiconductors

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needed to understand the engineering issues and solve real world problems With its clear explanations and design examples the book provides experienced and budding engineers with the information necessary to design the structure and fabrication process of a semiconductor integrated optical device Invaluable for engineers and applied scientists in optics semiconductors R D engineers in communications sensors and medicine and graduate students Complete with 280 equations and 95 illustrations **Journal of the Chemical Society** ,1981 **Chemical Processing of Advanced Materials** Larry L. Hench,Jon K. West,1992-08-07 Based on material submitted by the world s leading scientists at the Fifth Ultrastructure Processing Conference held in February 1991 Their current research results provide a comprehensive treatment of the recent state of science and applications in chemically derived glasses polymers ceramics composites and advanced optical materials Includes Sol Gel and Silica Science Thin Films and Coatings Ultrastructural Polymers Chemically Processed Fibers and Composites and much more

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