the possibility of a direct band gap material. Short periods are necessary to obtain significant oscillator strength for such folded, pseudodirect transitions; as the thickness increases, the transition matrix elements quickly approach their vanishing bulk values. Growth of such materials has recently become possible through molecular beam epitaxy. Pearsall *et al.*^{1,8,11} studied electroreflectance of Si_nGe_n superlattices on (001)Si for n = 1, 2, 4 and 6 and observed new optical transitions at 0.76, 1.25, 1.70 and 2.31 eV for n = 4

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ELECTRONIC STRUCTURE OF STRAINED SUPERLATTICES



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	reduces the direct hand can and slightly modifies the valence hand offsets. The effect
	of spin, orbit on the confirmant of the superlattice states is thus expected to be
	or spin-orbit on the commentent of the superlattice states is thus expected to be
	small.
	J. CONCLUSIONS
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- 23 S.-H. Wei and A. Zunger, Appl. Phys. Lett., 53 (1988) 2077.
- 24 C. G. Van de Walle and R. M. Martin, Phys. Rev. B, 34 (1986) 5621.
- 25 F. H. Pollak and M. Cardona, Phys. Rev., 172 (1968) 816.
- 26 M. Tinkham, Group Theory and Quantum Mechanics, McGraw-Hill, New York, 1964.