Title:	Atoms In High Intensity And Low Frequency Oscillating Fields : A Modi ed Floquet Approach
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Abstract:	The Floquet prescription for solving the time-periodic Schr odinger equation in oscillating elds involves a heavy diagonalization. In this work a new computational scheme is presented, which involves an analytical diagonalization of a uniform block tridiagonal matrix. This block diagonalization involves Coulson's expressions for eigenvalues and eigenvectors of a H uckel matrix for a linear polyene. The given method is found suitable for the high intensity- low frequency parameter regime of the oscillating eld. The high intensity eld is now built into the diagonal blocks of the Floquet matrix, thus resulting in zeroeth order solutions, which are resonances in an oscillating eld. However, in this basis, the diagonal number matrix, becomes o - diagonal. A further simpli cation in terms of maximal coupling involving the largest o diagonal element is used to nd positons and decay widths of the eld induced resonances as function of eld strength and oscillating frequency.
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