

Anharmonic properties of the vibrational quantum computer

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The vibrational quantum computer is a quantum computer that uses the vibrational degrees of freedom of a molecule as the qubits. The qubits are represented by the vibrational energy levels of the molecule. The quantum gates are represented by the vibrational energy levels of the molecule. The quantum gates are represented by the vibrational energy levels of the molecule. The quantum gates are represented by the vibrational energy levels of the molecule.

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II. THEORY

As a first step, we consider the case of a constant magnetic field $\mathbf{B} = B_0 \hat{z}$. The Hamiltonian is then given by

$$M_{kl,ij} = {}_0 k i_{Q_1} l j_{Q_2} + {}_1 k_{Q_1} i_{Q_1} l$$



III. RESULTS AND DISCUSSION

A ...
 1, 2, 12 ... 40 120 ...
 10 ...
 CNO ... F ...
 ... O ... 9
 9 9 ... 1, 2, 12 ...
 729 ...
 ... 3D ... F ...

$i+1, j-1 \rightarrow i+1, j$. N $j-2$ $i+2, j-2 \rightarrow i+2, j$
 1 $i+1, j-1$. I Ex. 6 $i+1, j-1$

Ex. 5 i, j $i+1, j-1$ $i+1, j$ $i, j+1$
 $i, j+1$ $i+1, j-1$ $i+1, j$ $i, j+1$

$1, 2, 12$. S . $F = 0.5$.
 A . $F = 0.60$. C . $F = 0.65$. 12 .

C. A_1/A_2 plane

$F = 0.985$. $F = 0.987$.
 $1, 2, 12 = 40, 50, 50$. $50, 90, 90$.
 $60, 115, 115$. $12 = 115$. $F = 0.984$. $F = 0.984$.

N . i, j .
 $\rightarrow i, j+1$. $j-1$.
 $i+2, j-1 \rightarrow i+2, j$. A . $F = 0.6$.
 6 . A . $F = 0.6$.

1, 2, 12
A₁/A₂
Fi. 4. A₁

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