

c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l
c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l
c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l
c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l

$$\hat{H}c1\hat{H}c1sc1\hat{H}c1Ec1\hat{H}c1SEc1 \quad (1)$$

c l \hat{H}_E c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c
l $\hat{H}_S = \Omega \mathbf{h} \cdot \hat{\boldsymbol{\sigma}}$ c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l
c l c l c l c l c l c l c l c l c l

$$\hat{H}_{SE} = \chi(t) \boldsymbol{\alpha} \cdot \hat{\boldsymbol{\sigma}} \otimes \hat{O}. \quad (2)$$

c l $\mathbf{h} \cdot \hat{\boldsymbol{\sigma}}$ c l $\boldsymbol{\alpha} \cdot \hat{\boldsymbol{\sigma}}$ c l c l c l c l c l c l c l c l c l c l c l c l \mathbf{h} c l $\boldsymbol{\alpha}$ c l c l c l c l \hat{O}
c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l
c l c l c l c l c l c l c l c l
c l c l $\chi(t)$ c l c l c l c l c l c l c l c l c l c l c l c l c l c l c
l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l c l
l c l c l c l χ c l c l c l c l c l c l c l c l c l c l c l