$$|m_s = i + 1\rangle \quad |m_s = j + 1\rangle$$

$$|m_s = i\rangle \quad |m_s = j + 1\rangle$$

$$|m_s = i\rangle \quad |m_s = j\rangle$$

$$|m_s = i\rangle \quad |m_s = j\rangle$$