

CL42_Q1. What are the different modes of vibrations in a CO_2 molecule?

CL42_Q2. With an energy level diagram discuss how lasing action is achieved in molecular laser.

CL42_Q3. Mention the possible laser transitions that occur in CO_2 laser.

CL42_Q4. One of the transitions that happens in carbon dioxide molecules, leading to laser light production, is between the (001) level and (100) level. (i) Explain what (001) and (100) stands for (ii) Calculate the energy difference between these levels.