

SYSTEMATICS IN THE IR ABSORPTIONS OF ODD CARBON CHAINS

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The selective laser induced oxidation method was applied to identify the IR absorptions of long carbon chain molecules isolated in oxygen containing cryogenic matrices. We have found a regular pattern in the absorptions of C_{2n+1} ($n \geq 4$) in which with increasing chain length the most intense IR absorption shifts to the red. In addition, our data allow conclusions regarding the spectra of unknown carbon chain oxides.