

Mean lifetimes of the two lowest singlet excited states of linear conjugated polyenes from ethene to docosaundecaene were explored. The semiempirical OM2/MNDO method using MRCISD computational level was used to perform molecular and electronic dynamics of these molecules in *n*-hexane. In each step the time-dependent Schrödinger equation was solved and the transitions between states were carried out by the Tully's fewest switches algorithm. Mean lifetimes were determined by fitting the time dependent probabilities of the excited states according to the exponential decay law. The lifetimes of the S_2 state are very short: from hexatriene's 7 fs to octatetraene's 51 fs. As for the S_1 state lifetime, ethene has the shortest one, 89 fs, in contrast to octatetraene, whose S_1 state lifetime is 1275 fs. The lifetimes are significantly shorter in comparison with the previous gas-phase study.