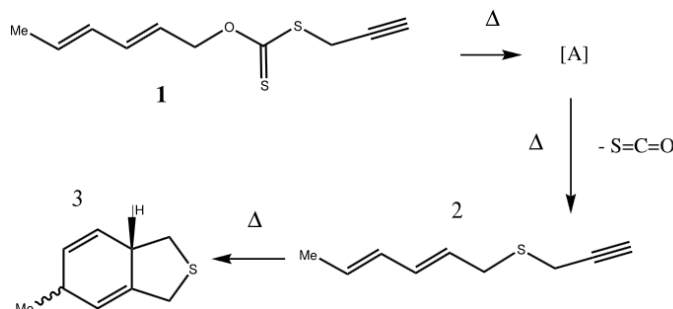


1. Determine the structure of [A] using the spectroscopic data provided. Propose a suitable mechanism for the following transformation, including a suggestion of the stereochemistry of the methyl group:



The <sup>1</sup>H NMR of [A] is:  $\delta$  1.70 (3H, d, 6Hz), 2.23 (1H, t, 3Hz), 3.73 (2H, d, 3Hz), 4.84 (1H, dd, 7,8Hz), 5.15 (1H, d, 10Hz), 5.27 (1H, d, 17Hz), 5.51 (1H, dd, 8,16.5 Hz), 5.77 (1H, dq, 6,16.5 Hz), 5.88 (1H, ddd, 7,10,17Hz).

2. Propose a suitable mechanism for the following transformation:

