9-Oxabicyclo[3.3.1]nona-2, 6-diene. Short Access and Allylic Bromination

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9-Oxabicyclo[3.3.1]nona-2, 6-diene (**3**) has been synthesized from cycloocta-1, 5-diene in two steps in an overall yield of 88%. The dihedral-angle dependence of its ^{1}H solution NMR data and the double signal set of its ^{13}C CP MAS NMR spectrum correspond to the results of the single crystal structure analysis. Reaction of **3** with N-bromosuccinimide in the presence of sodium peroxodisulfate or benzoylperoxide has led in good yield to a dibromo derivative **4**, and a tribromo derivative **5**, respectively. Compounds **4** and **5** feature two allylic bromine substituents, while an additional vinylic bromine atom is present in **5**. According to a single crystal structure study the lattice of **4** consists of pairs of enantiomers similar to those found in the case of **3**.

Key words: Bicyclic Ether, Allylic Bromination, Vinylic Bromination, Crystal Structure