The pectenotoxins are a family of polyether macrolactones. They were first isolated from the scallop, *Patiniopecten yessoensis*. Some of the pectenotoxins are cytotoxic agents which depolymerize actin filaments and are proving to be valuable tools for understanding actin disassembly. Below is some of the chemistry that has been used in synthetic approaches to the pectenotoxins.

1. Suggest a method for performing the first transformation.
2. Give the structure of the product of the second step.

Reference: DOI: 10.1021/ol8025457