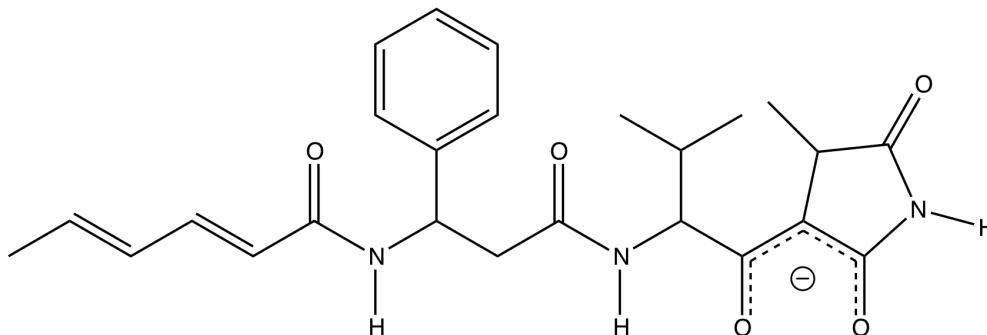
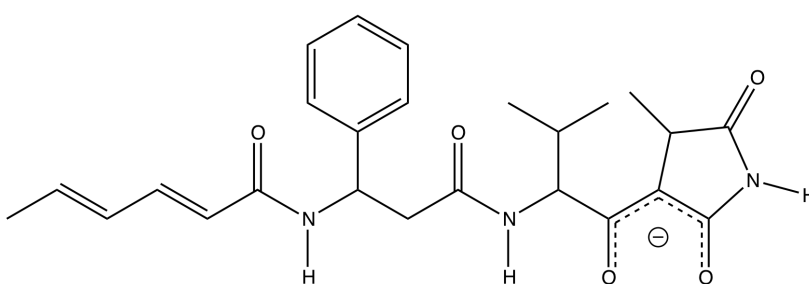


2. (20 pts) Below is the structure of Moiramide B. The authors write that this molecule is “a pseudopeptide that was extracted from a marine isolate of *Pseudomonas fluorescens*”.
- Label each chiral carbon as “R” or “S”
 - List the chemical characteristics of Moiramide B that lead to its appropriate designation as a pseudopeptide

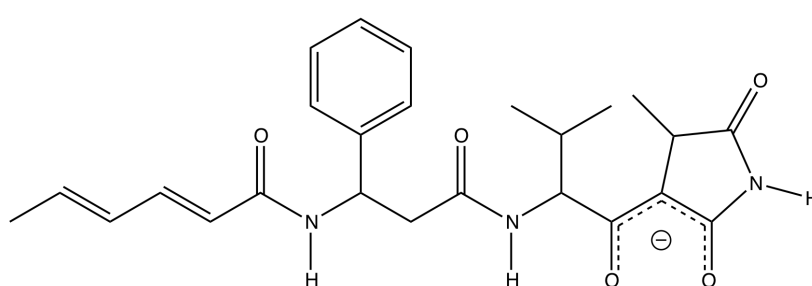


Login to your Beloit email and download the structure for use in PyMol. Logout of your email account. You may not visit any other papers, websites, or electronic accounts during the exam.

3. (20 pts) Using the structure of Moiramide B, create a ligand map of the interactions of Ser 198 (chain A), Gly 199 (chain A), and Gly 208 (chain B). Draw the chemical structure of the residue interacting with the appropriate elements of Moiramide B. Identify the type of interactions for each.



4. (20 pts) Using the structure of Moiramide B, create a ligand map of the interactions of Ile 221 (chain A), Leu 229 (chain A), Met 170 (chain B), and Val 235 (chain B). Draw the chemical structure of the residue interacting with the appropriate elements of Moiramide B. Identify the type of interactions for each.



5. (20 pts.) The authors write:
“The unsaturated fatty acid tail interacts with Met 134 (chain B) and Leu 229 (chain B), and with Met 179 (chain A).” Do you agree with this statement? If not, suggest the three residues that the unsaturated fatty acid tail actually interacts with (e.g., correct the statement).