Literature discussion

Please read the following paper before coming to the class: Origins of Enantioselectivity during Allylic Substitution Reactions Catalyzed by Metallacyclic Iridium Complexes.

J. Am. Chem. Soc., 2012, 134 (19), pp 8136–8147

 DOI: 10.1021/ja212217j

In the SI, the researchers identified the positions of allylic protons, including the *syn* and *anti* protons for the terminal allylic position for the allyliridium compound **2c**.

1. Which methods were used to identify the abovementioned protons?
2. Do you agree with the reported assignment of allylic protons, please explain why?
3. Why did researchers use ROESY method vs. the common NOESY?
4. Why was it important to identify the *syn* and *anti* terminal allylic protons?