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## Using Polarized Electron Beams to Explore the Origins of Biomolecular Homochirality

The discovery of bio-molecules in meteorites with an excess of one chiral state has created one of the biggest questions in science today. That is, what is the origin of bio-molecular homochirality? Studies of this question are highly interdisciplinary, and while several phenomenological models exist, we examine the relationship between fundamental symmetries at the particle level and the macroscopic formation of bio-molecules. Interactions with leptons may selectively destroy one chiral state over the other. Possible sites are proposed in which this model may exist. We propose an experiment to test the formation of chiral bio-molecules in space in an electron beam experiment with polarized targets. Such an experiment will be discussed along with several problems and questions associated with it.

### Summary

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