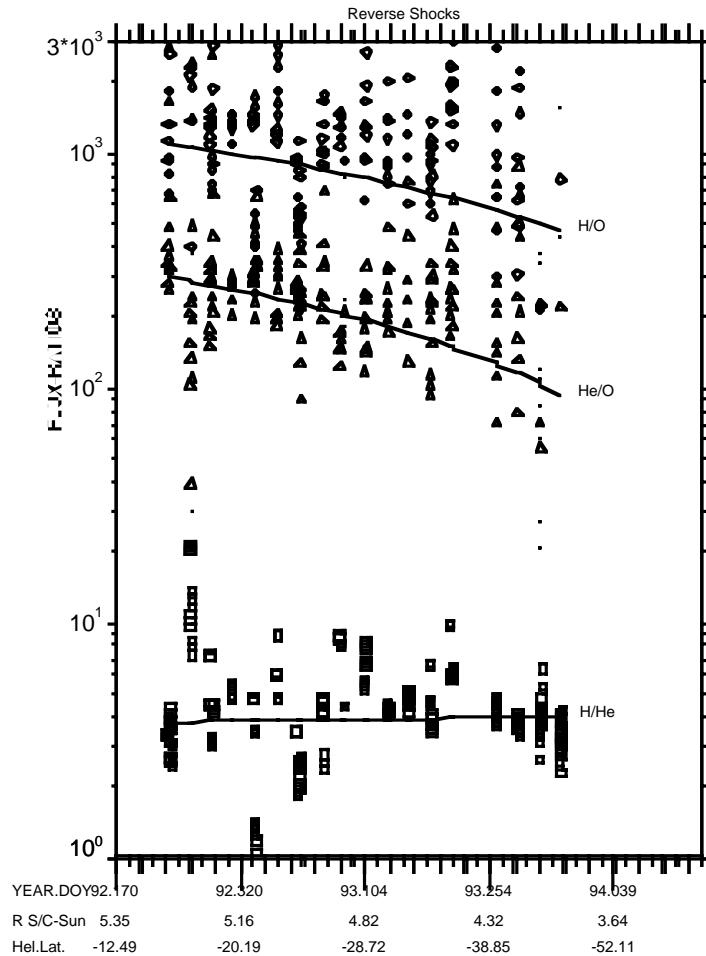
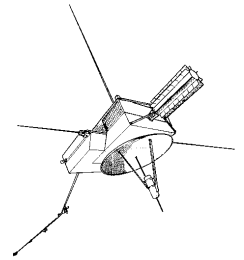


Energetic Ion Abundances at Corotating Reverse Shocks



Data from the Ulysses Energetic Particle Anisotropy and Composition investigation have been analyzed to determine the composition of ions accelerated at reverse shocks in the energy range from 0.1 to 4.0 mev/nucleon. The H/O ratio decreases with decreasing radial distance. The He/O ratio also decreases with distance; and is anomalously large compared to solar wind values. The H/He ratio has a value of about 3, in contrast to a solar wind ratio of 20. These results imply that the He overabundance results from pick-up of interstellar ions which dominate the superthermal tail of the particle distributions. The O and other heavy ions agree with solar wind thermal abundances. (From Fraenz et al., GRL in press)