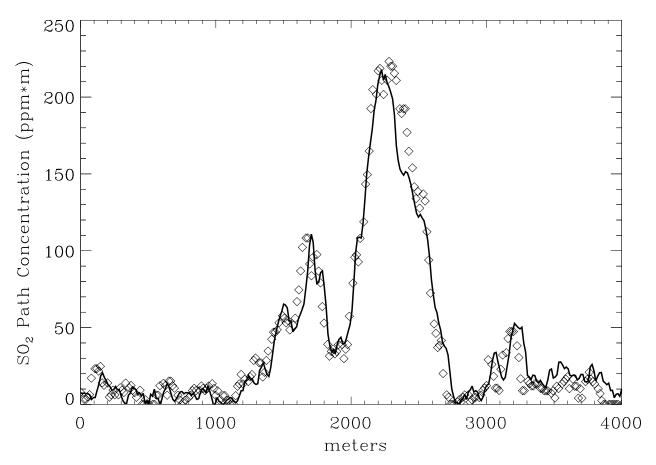
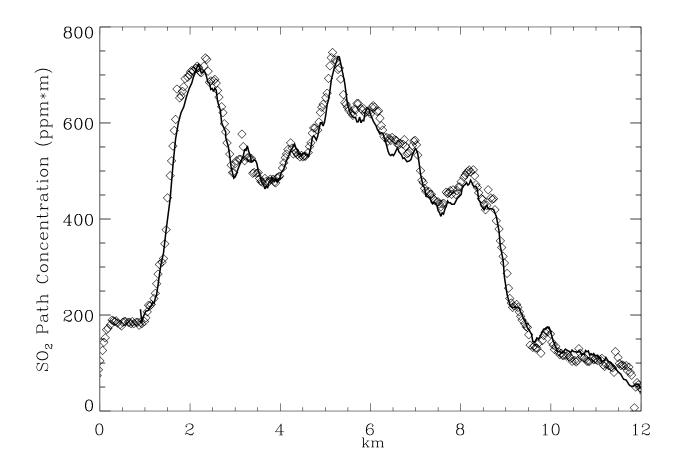


Screen shot of data collection program showing window with solar spectrum (top) and running real-time plot of  $SO_2$  column abundance.



Profile comparing real-time FLYSPEC (line) results and reduced COSPEC (diamonds) data acquired simultaneously at Kilauea in the caldera region. Results from 5 runs gave an  $SO_2$  emission rate of  $97 \pm 17$  t d<sup>-1</sup> for COSPEC and  $95 \pm 13$  t d<sup>-1</sup> with FLYSPEC.



Profiles of  $SO_2$  column abundance from the Pu'u O'o plume comparing COSPEC and FLYSPEC. There is excellent agreement between the two instruments even at significantly higher  $SO_2$  concentrations.