

FIRST HIGH RESOLUTION ABSORPTION SPECTRA USING THE FAR INFRARED SYNCHROTRON CONTINUUM SOURCE EXTRACTED BY THE “AILES” BEAMLINE AT SOLEIL

OLIVIER PIRALI^a, PASCALE ROY, JEAN-BLAISE BRUBACH, MATHIEU ROUZIÈRES, DIDIER BALCON^a, LAURENT MANCERON^b and MICHEL VERVLOET, *Synchrotron SOLEIL, L'Orme des Merisiers Saint-Aubin, 91192 Gif-sur-Yvette, France.*

In this talk we will present the first high resolution spectra obtained on the Far-Infrared (FIR) AILES beamline at SOLEIL. This bright FIR beam is used as a continuum source for high resolution absorption experiments. For this purpose a multipass cell (baselength of 2.52 m) has been developed in order to reach typical absorption pathlength of 150 m. We will show the absorption spectra of different molecules and the advantages of using FIR synchrotron sources compared to the classical continuum provided by globar and mercury lamps.

^aLaboratoire de Photophysique Moléculaire, Université Paris-Sud, 91405 Orsay Cedex, France

^bLaboratoire de Dynamique, Interactions et Réactivité, Université Pierre et Marie-Curie, France