STARDUST: First results from the Cometary and Interstellar Dust Analyzer. J. Kissel[1], and J. Silén[2], [1]Max-Planck-Institut f. Aeronomie, Max-Planck-Str.2 D-37191 Katlenburg, Germany ,'cometkissel@ onlinehome.de', [2]Finnish Meteorological Institute, Vuorikatu 24, SF-00101 Helsinki, 'johan.silen@fmi.fi'.

Introduction: The Cometary and Interstellar Dust Analyzer CIDA [1] was active during the Flyby at comet Wild-2. For about 90 seconds around the spacecrafts closest approach to the nucleus impacts of dust particles were registered and mass spectra taken.

The Amount of Dust: CIDA was designed and prepared to handle the data of e few thousand dust particles, yet only 29 events were seen during flyby. This is a factor of 100 less than expected. Several explanations seem possible and will be discussed: unintended shadowing of the CIDA target due to an adverse attitude of the spacecraft or STADUST hit a time of very low comet activity.

The Mass Spectra: this is the second attempt for in-situ measurement of mass spectra from cometary dust particles after the success of the PUMA and PIA instruments 18(!) years ago. Due to the 10 times lower encounter speed more molecular ions were expected. They would also arise predominantly from the surface atomic layers of the dust particles. The low statistics makes it necessary to handle each event separately. So far we know that very few mineral ions were found, while the spectra are indeed dominated by molecular ions of the organic phase. Some of the mass lines of the organic component, which could only inferred at Halley [2] are clearly found here.

For the first time mass spectra of negative ions are available for cometary particles. Unlike the spectra from interstellar particles they show only a few lines indicating small dust particles as their source.

References: [1] Kissel J. et al. (2003), *J. Geophys. Res*., 108, E10, pp. 8. [2] Kissel J. and Krueger F.J. (1987), *Nature,* 236 755-760.