

SPACE EXPLORATION SYMPOSIUM (A3)
Small Bodies Missions and Technologies (4)

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FUTURE IN-SITU EXPLORATION TOOLS FOR ASTEROIDS AND COMETS

Abstract

The next generation of in-situ instruments for planetary exploration should not only be more compact and highly integrated, but at the same time be more sensitive, precise and allow for a limited sample preparation and handling. Presently it seems that only sample return missions could fulfill the science demands in the near future. We will discuss potential pathways for technical developments and future mission proposals, focussing on elemental and isotopic composition analysis and the technical and science questions that should be addressed with the next generation of in-situ instrumentation for small body explorations in the solar system.