Studying the Formation, Evolution, and Habitability of the Galilean Satellites

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Highly sensitive, high-mass resolution mass spectrometry is an important *in situ* tool for the study of solar system bodies. In this talk we detail the science objectives, develop the rationale for the measurement requirements, and describe potential instrument/mission methodologies for studying the formation, evolution, and habitability of the Galilean satellites. We emphasize our studies of Ganymede and Europa as described in our instrument proposals for the recently selected JUICE mission and the proposed Europa Clipper mission.