

## GAS-PHASE CHARGE TRANSFER ELECTRONIC SPECTROSCOPY OF Ag<sup>+</sup>-BENZENE COMPLEX

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Charge transfer electronic spectroscopic results were reported for the Ag<sup>+</sup>-benzene complex in the gas phase using photodissociation. The Ag<sup>+</sup>-benzene complex was generated by laser vaporization of a silver rod in combination with pulsing an inert gas seeded with benzene then mass selected and probed using a time-of-flight mass spectrometer. The mass-selected ions were then fragmented and scanned using a solid state OPO capable of scanning through the UV-Visible range. A high-resolution electronic spectrum of Ag<sup>+</sup>-benzene was reported in the UV-Visible range to determine the upper threshold for the dissociation energy of the Ag<sup>+</sup>-benzene complex which were compared with previous velocity map imaging results. An unexpected feature was observed in the lower UV region which was attributed to the HOMO-LUMO absorption on an excited benzene ligand.