

THE PURE ROTATIONAL SPECTRA OF FCptF AND FPtI

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Transitions measured by a chirped pulse Fourier transform microwave spectrometer in the frequency range 6.5-18.5 GHz have been fitted and tentatively assigned to the linear molecules FCptF and FPtI, each in a $^1\Sigma$ electronic state. Laser ablation was used to introduce Pt into the gas phase from a metal rod with natural isotopic abundance. CF_3I was used as a source of C, F and I atoms. The products of reactions between the chemical precursors were cooled to a rotational temperature approaching 2K through supersonic expansion of the gaseous sample. Different isotopologues of Pt were observed. The spectra of other palladium and platinum containing complexes obtained in a similar way will be presented.