streamers in terms of the brightness of the mean solar disk. Except for an interval centered about noon the coronagraph was guided on the sun to an accuracy of ± 5 sec of arc maximum excursion. Diurnal motion of the image of the corona as seen from the altazimuth guiding system allows one to distinguish between coronal streamers and artifacts due to the scattered light in the optical system. A level of scattered light in the coronagraph was approximately 10^{-9} the brightness of the mean solar disk.

Inspection of the observations shows the corona of 5 March 1964 to be a typical sunspot minimum corona. Two complex streamers appear at the east limb while the west is dominated by a single, equatorial streamer extending to the limit of the field. Hypotheses connecting these streamers with recurrent geomagnetic storms and high-energy interplanetary nuclei observed during the early months of 1964 are presented.

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Possible Identification of Permitted *Fe* XIV Lines in the Extreme Ultraviolet Solar Spectrum.

W. M. NEUPERT AND E. V. P. SMITH, *Goddard Space Flight Center and University of Maryland*.—The physical conditions and composition of the corona lead one to expect that permitted *Fe* XIV lines should appear with considerable strength in the extreme ultraviolet solar spectrum. Earlier attempts at identification have been quite uncertain and incomplete. Satellite observations, such as the OSO-1 data used here, have the advantage over rocket observations in permitting the study of line intensity variations during solar activity. We have tentatively identified several lines in the extreme ultraviolet as due to *Fe* XIV on the basis of almost identical enhancements relative to background and other lines with increased plage activity. The lines we attribute to *Fe* XIV lie at wavelengths within 2 Å of wavelengths predicted from the energy levels computed by Garstang (*Ann. d'Astrophys.* **25**, 109, 1962). Exceptions are the $3p\ ^2P^\circ-3d\ ^2D$ transitions, which we suggest may actually lie 10 Å toward shorter wavelengths. In every case, however, the separation of the term intervals agree within a few hundred wave numbers with the predicted values.

The absence of the resonance lines, expected at $\lambda\lambda$ 345, 366, 368, may be due to their rather low oscillator strengths, as computed by Garstang, and to the decreased sensitivity of the OSO-1 spectrometer at these wavelengths. The relative intensities of the observed lines agree only very approximately

with Garstang's calculations. The lines observed are:

Transition	<i>J</i> - <i>J</i>	Predicted wavelength	Observed wavelength
$3p\ ^2P^\circ-3p\ ^2S$	1/2-1/2	272.9	274
	3/2-1/2	287.7	289
$3p\ ^2P^\circ-3p\ ^2P$	1/2-1/2	256.0	Blended (<i>He</i> II)
	1/2-3/2	250.5	252
	3/2-1/2	269.0	270.5
	3/2-3/2	262.9	264
$3p\ ^2P^\circ-3d\ ^2D$	1/2-3/2	214.1	204
	3/2-3/2	223.1	211
	3/2-5/2	222.0	211

***HeH*⁺ in Model Stellar Atmospheres.** ROBERT H. NORTON, *Jet Propulsion Laboratory*.—The effect of the radiative charge transfer reaction

upon the radiative equilibrium of nongray model stellar atmospheres has been investigated. Approximate wavefunctions and molecular potential energy curves were obtained for the two lowest $^1\Sigma^+$ states of *HeH*⁺. With the use of classical statistics for the distribution of internuclear separations, approximate absorption coefficients for this radiative charge transfer reaction have been computed.

Eight nongray model stellar atmospheres with solar abundances and $\log g = 4.0$, and with effective temperatures between 9500°K and 30 000°K, were computed excluding *HeH*⁺ as a source of opacity. When the opacity of *HeH* was introduced and radiative equilibrium to $\pm 1\%$ re-established, it was found that less than 1% of the total flux of the models was redistributed. It is concluded that the absorption coefficient for the above reaction may be neglected in calculations of this type.

Physical Conditions in the Nucleus of the Seyfert Galaxy NGC 1068.

D. E. OSTERBROCK AND R. A. R. PARKER, *Yerkes Observatory and Washburn Observatory*.—Photographic spectrophotometric measurements have been made of the emission lines of the nucleus of the Seyfert galaxy NGC 1068 in order to identify the mechanism by which excitation and ionization energy is supplied to the gas. The absolute calibration was provided by measurements with the same equipment of standard planetary nebulae with known fluxes. The observational result is thus a table of relative line strengths (in energy units) over the wavelength interval $\lambda\lambda$ 3346–7330, together with upper limits to the strengths of the unobserved lines.