in pressure. The thickness in active areas is 3 to 5
times smaller than in quiet areas. (4) The chromo-
spheric EUV emission does not appear to be directly
correlated with the amount of heat conducted from the
corona to the chromosphere.

EUV Observations of Solar Flares. A. T. WOOD, JR.,
- The Harvard College Observatory experiments flown on
the satellites OSO-IV and OSO-VI have, for the first time,
provided spatially resolved observations of solar flares
in the extreme ultraviolet. Several hundred flares have
been observed from both OSO-IV and OSO-VI, with time reso-
lutions as short as 30 seconds. Analysis of these observa-
tions shows: 1) the flare intensity usually reaches
maximum in the EUV 2-3 minutes before Hα, and also 2-3
minutes before the soft x-rays; 2) the flare enhancement
peaks for spectral lines normally formed in the solar
transition zone; 3) the energy released in EUV lines in
a flare is typically 3-4 orders of magnitude less than
the energy released in Hα. We will propose a new model
for the flare phenomenon which accounts for most of the
observations.

Magnetic Field Morphology and the Development
of Active Regions. HAROLD ZIRN, Hale Observatories.
- By use of high resolution filtergrams and fine scan mag-
etograms, a close correlation is established between Hα
morphology and the magnetic field pattern. Horizontal
fields or polarity changes are marked by dark regions
with horizontal fibrils. Vertical following fields
above a threshold value are marked by bright plages, while
preceding fields are typically darker (although bright
preceding plage may occur). In general, pictures with
one arc second resolution will provide a determination
of the field structure.

The magnetic fields of an active region have
been shown always to emerge in bipolar form, with velo-
city downflow. The polarity in these emerging flux
regions (EFR) is always symmetric. Yet complex regions
evolve from these. Hence the symmetric fields are
transformed by surface interactions into the complex con-
figurations in large groups. Examples of this evolution
are given.