5 On–disc: the footpoints

- The EIT/TRACE bandpasses are ~ blind at the footpoints temperatures (T=0.1–0.8 MK).
- The literature of on–disc AR observations is extensive, but there are virtually no detailed studies on this issue.
  Only Young & Mason, [1997] and Fletcher et al., [2001] presented CDS TR brightenings, but no relationship between the brightenings, the underlying photospheric field, and the overlying coronal structures was studied or found, respectively.

- The footpoints of AR loops are normally very compact and have strong emission (due to their high density) in transition region (TR) lines formed in the range T=0.1–0.8 MK.
- Many studies based on Skylab SO82A overlapping spectroheliograms concentrated on footpoints of AR loops and Ne/Mg relative abundances (FIP effect): Widing & Feldman, [1993], Sheeley, [1995], Sheeley, [1996], Widing, [1997], and Widing & Feldman, [2001].
  Main results: FIP bias increase in a matter of hours, reaching coronal values ($A_{Mg/Ne}$=1.4, FIP bias=4) just after a day or two, up to values of 7–9 in 3–7 days.
  FIP–bias evolution can give us clues to understand the (still unknown) basic physical processess at work in the element fractionation.