ISOPHOT Spectrophotometry of Dust and Gas in SNRs

R. J. Tuffs[1], L. O'C Drury[2], J. Fischera[1], I. Heinrichsen[1], I. Rasmussen[3], S. Russell[2], and H.J. Völk[1]

[1] Max-Planck-Institut für Kernphysik, Heidelberg
[2] Dublin Institute for Advanced Studies
[3] Danish Space Science Research Institute, Copenhagen
[4] IPAC, Caltech, USA

Abstract

Outline: PHT-S spectra towards ejecta and the shocked interstellar and circumstellar medium will be presented for SNRs of different ages and progenitor types, including Cas A, MSH11-54, Tycho's SNR, Sgr A East, the Cygnus Loop, and several Magellanic Cloud SNRs. The results will be discussed in terms of (i) supernovae as sources of grains (ii) composition, evolution and destruction of grains in shocked gas (iii) effect of grain emission on shock structure.