

Abstract Submitted
for the APR14 Meeting of
The American Physical Society

The Effect of Sulfur on Interstellar Extinction DHANESH KRISHNARAO, ULYSSES SOFIA, American University — We examine the prominence of sulfur in interstellar dust and any effects it may have on extinction. Sulfur is one of the most copious elements in the universe, so proper understanding of its role in the interstellar medium is crucial. Previous studies show little to no sulfur in interstellar dust but, recent evidence of observed interstellar grains and Glass Embedded with Metal and Sulphides (GEMS) suggest an abundance of sulfur in dust. Sulfur's location on the flat part of the curve of growth results in the need for very careful modeling in the form of the Voigt profile. We use custom-built IDL routines to perform Voigt profile fitting on Hubble Space Telescope spectroscopic data sight lines, using other species as a template to accurately fix parameters and extract column densities of sulfur in the gas.

Dhanesh Krishnarao
American University

Date submitted: 06 Jan 2014

Electronic form version 1.4