

Diffuse Interstellar Bands vs. the 2175 Angstrom Interstellar Extinction Bump

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Despite 85 years' extensive observational, experimental, and theoretical studies of the diffuse interstellar bands (DIBs), not even a single DIB has been identified. A promising candidate for the DIBs is PAHs, of which the electronic transitions have been proposed as responsible for some of the DIBs. The 2175 Angstrom interstellar extinction feature also remains unidentified since its first detection 43 years ago. In recent years, it was attributed to the π - π^* transition in PAHs. If PAHs are indeed responsible for both the DIBs and the 2175 Angstrom extinction feature, their strengths should correlate. We perform an extensive literature search for lines of sight for which both the 2175 Angstrom extinction feature and DIBs have been measured. Unfortunately, we found no correlation between the strength of the 2175 Angstrom feature and the equivalent widths of the strongest DIBs.