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## He I 10830 Emission in Solar Flares

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Solar flares release tremendous amounts of energy which is transported through the various layers of the Sun's atmosphere, resulting in heating, ionisation, mass flows, and non-thermal effects. The response of the plasma is detected by the radiation it produces. Often the radiation emitted during flares is formed under complex conditions, requiring forward modelling to guide the interpretation. This synthetic radiation can also be used to attack flare model assumptions. Here I discuss recent work that aimed to determine what is responsible for observations of flare-induced *dimming* of the He I 10830A line, and what potential diagnostics it might reveal of flare energy transport into the chromosphere. Many electron beam driven flares were performed, with the result that non-thermal collisional ionisation of helium (e.g. with the beam itself) is required to reproduce this dimming, and that the properties of the the dimming depend on the non-thermal electron distribution. Simulations that did not include non-thermal collisional ionisation failed to reproduce the observed dimming.

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