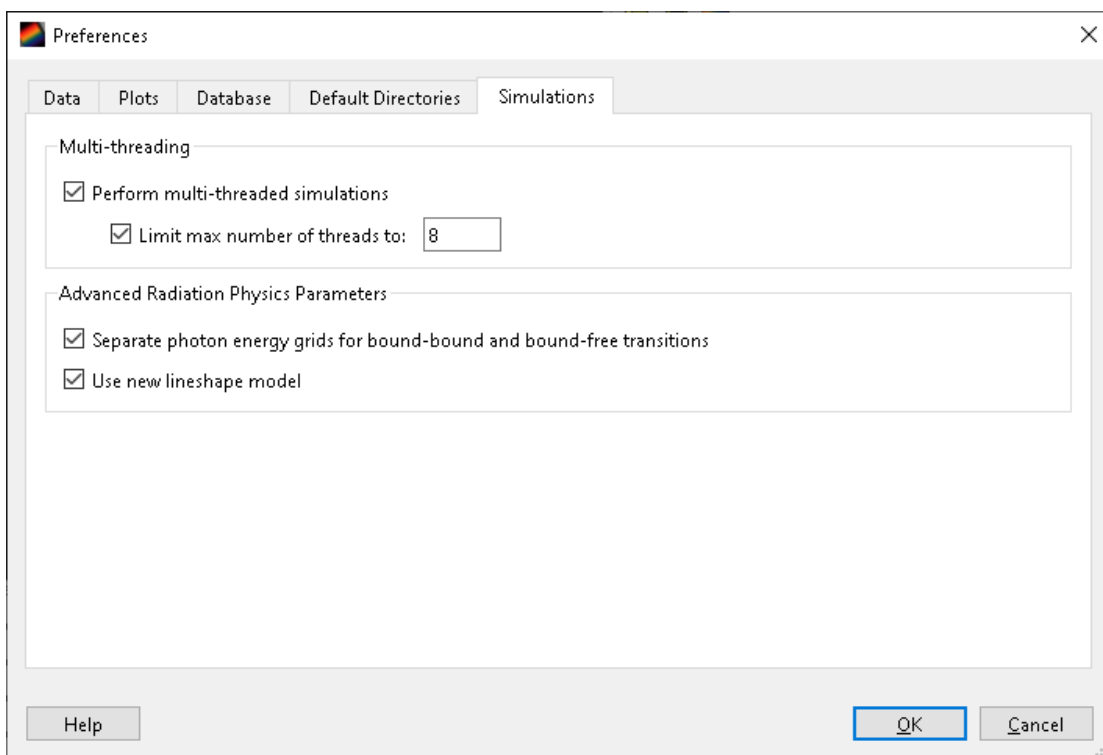


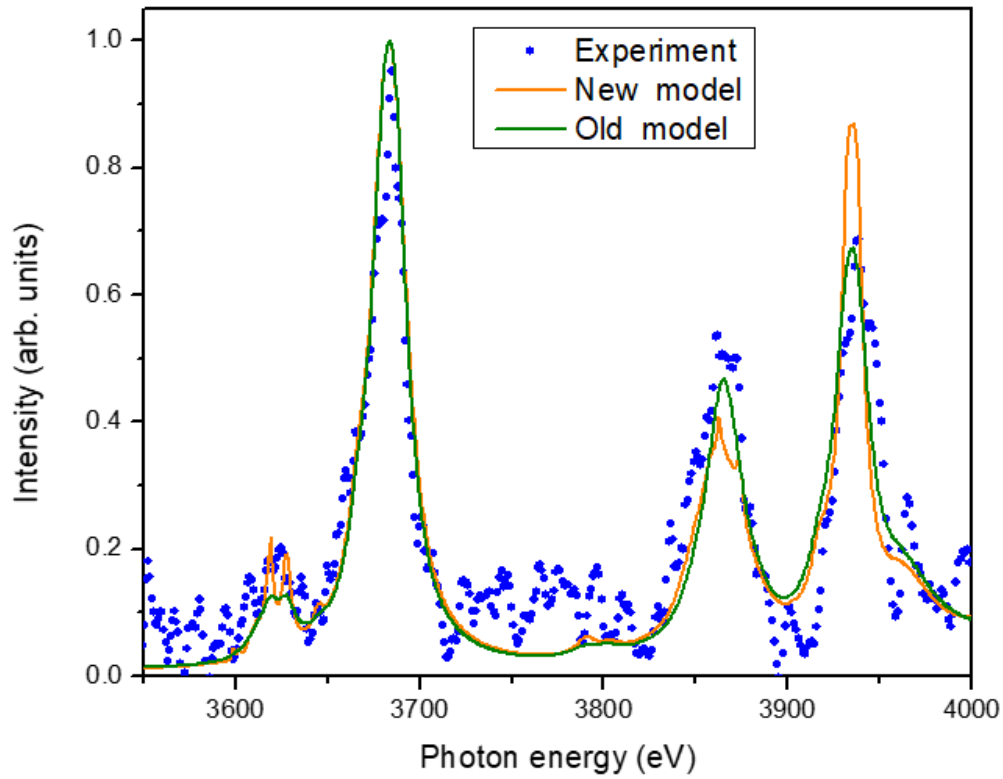
Revisions for PrOpacEOS version 9.0.0

- This version is built with a new version of Qt - a cross-platform framework for creating user interfaces and graphics. This is a major upgrade to the long-term support version of Qt 6.2.x. It was required to ensure stable operation of Prism software the most recent Windows, Mac, and Linux operating systems.
- New Stark broadening models were implemented based on the semi-empirical approach detailed in Gu and Beiersdorfer (Phys. Rev. A, 101, 032501). Users of Prism software can control whether to use the old or the new Stark broadening model in preferences for each application. The default option is to use the new model. For more information on the models please refer to a appendix in the documentation titled "Stark Broadening Models in Prism Codes".

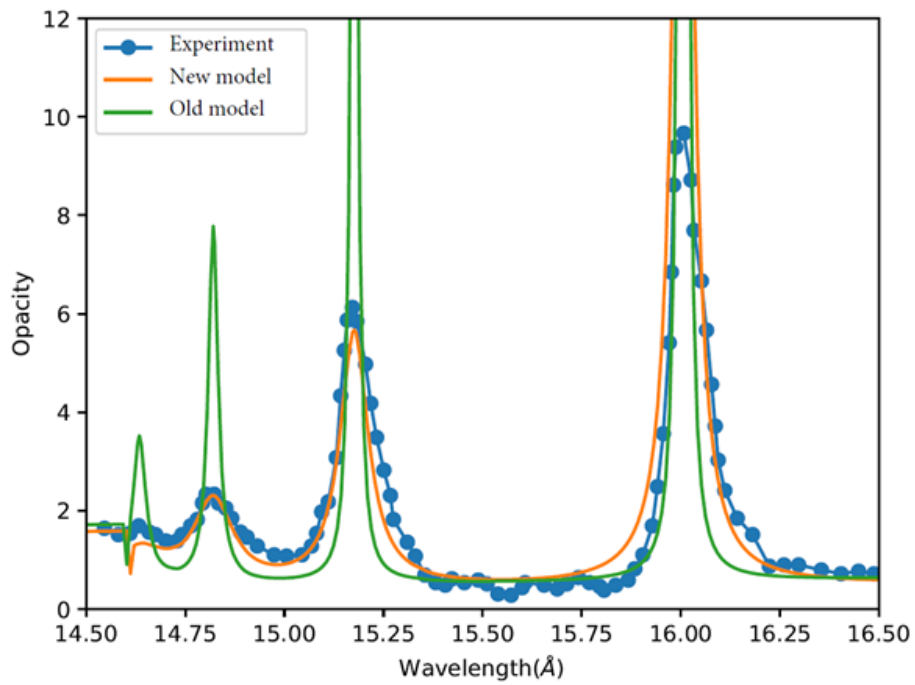


Depending upon plasma conditions and composition, the new Stark broadening model may have a significant impact on the spectral distribution Figures below show the results of the simulations for:

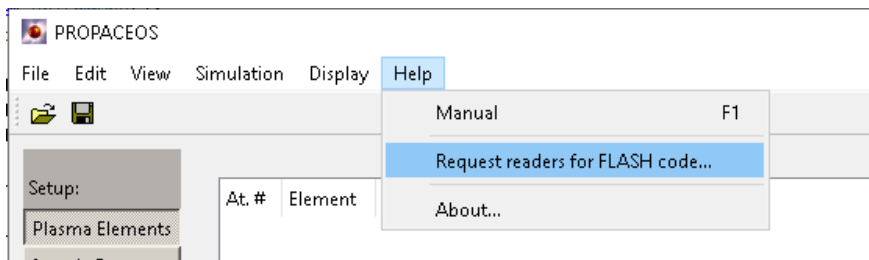
Typical Ar K-shell emission spectrum from ICF implosions



Calculations of Oxygen opacities



- Added option to request PROPCEOS tables readers for [FLASH hydro code](#).



- Bug fixes:

- Previously, for non-LTE calculations, if either "Use non-zero thickness" or "Include hot electrons" was selected, but the user then changed it back to LTE, the calculation would still run grid points for non-zero thickness and/or hot electrons. This has been fixed.
- Previously, if populations did not converge, a warning message would be shown for every grid point in the calculation. Now, the calculation will end with that message appearing only once.