

Germanium Vacancy Diamond Zero Phonon Line Temperature Response

Joe Becker

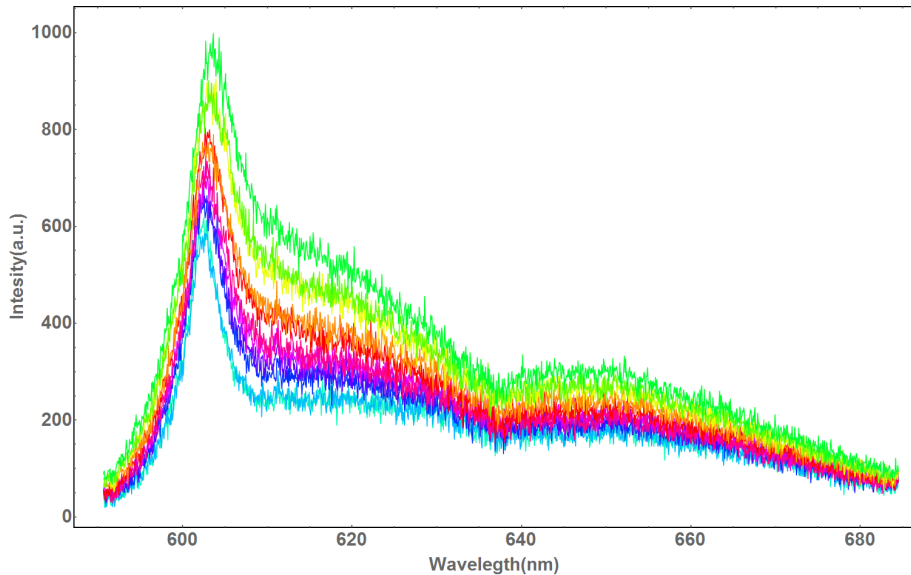
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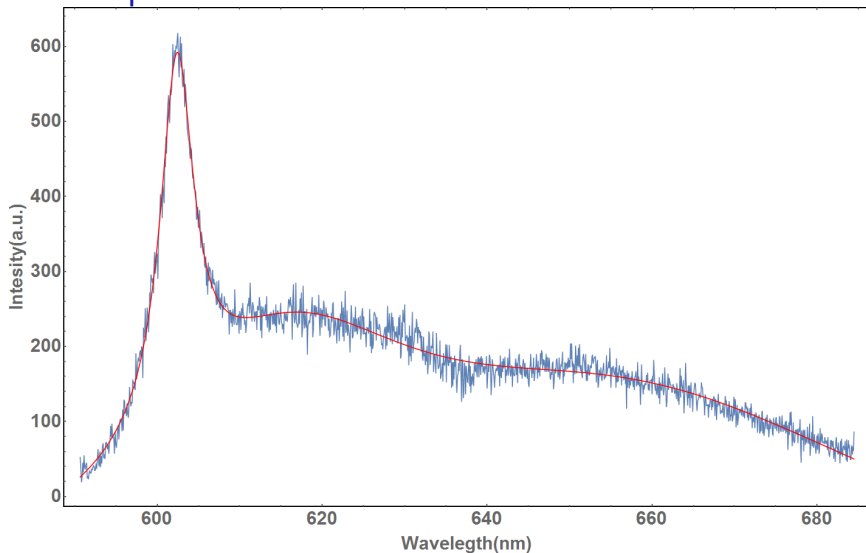
January 26, 2017



GeV Temperature Spectra

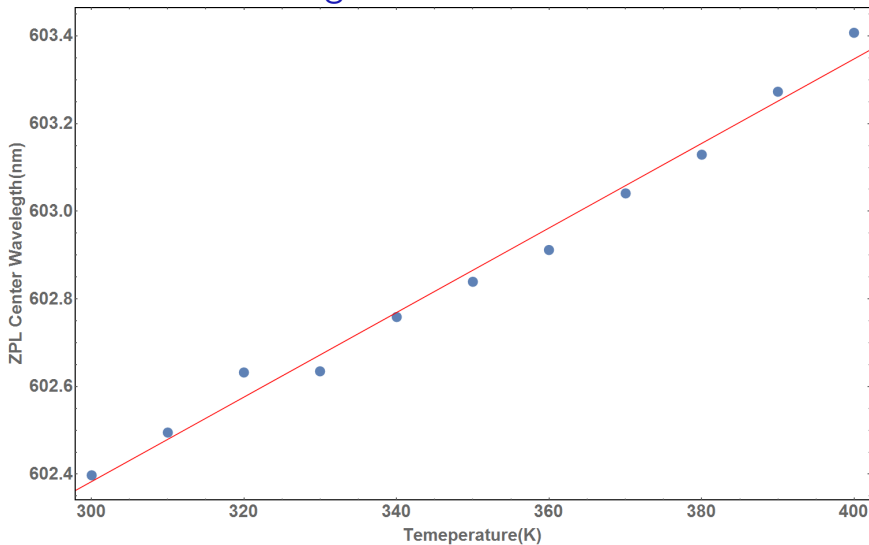


300 K Spectrum Fit



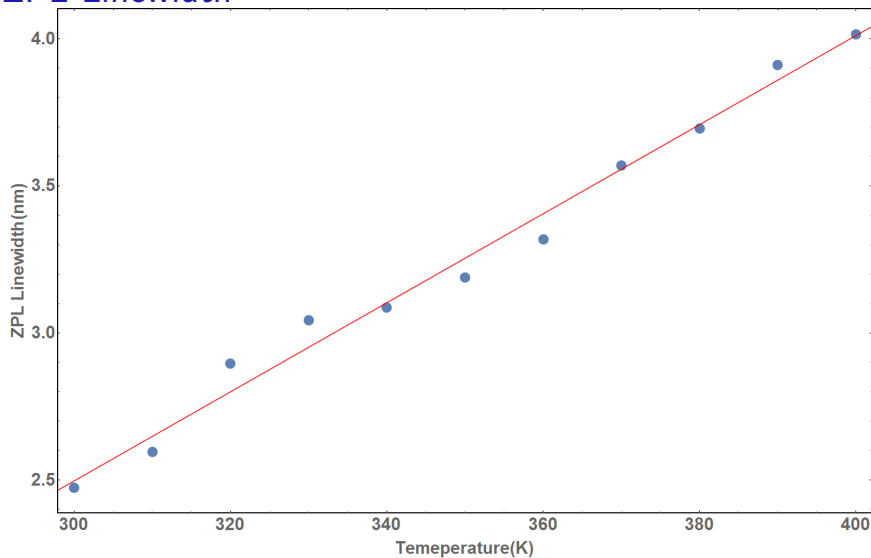
Fit using 3 Lorentzian functions with an error function filter

ZPL Center Wavelength



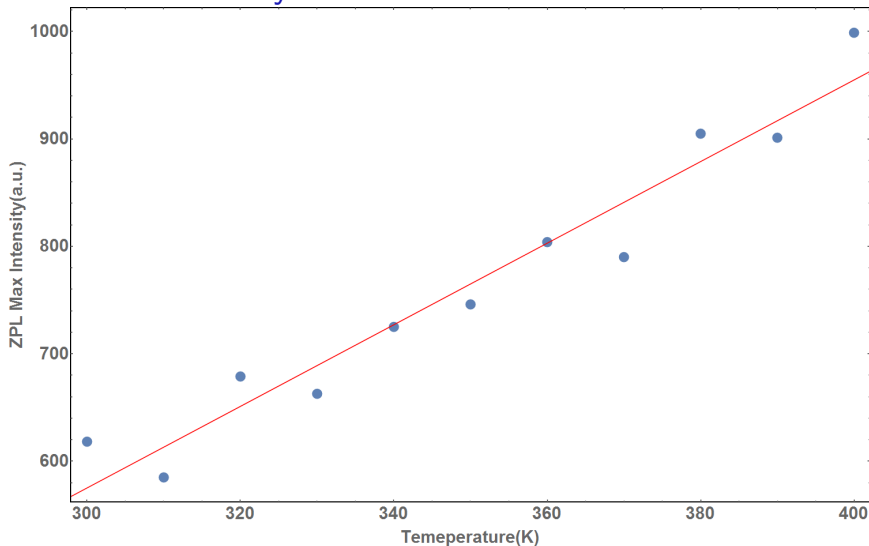
Fit: $y(x) = 599.488 + 0.00965032x$

ZPL Linewidth



Fit: $y(x) = -2.04259 + 0.0151333x$

ZPL Max Intensity



Fit: $y(x) = -565 + 3.8x$