

THE DETERMINATION OF SPECTRAL LINE  
SHAPES FOR HYDROGENIC IONS IN DENSE  
PLASMAS

By

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The task of calculating line-shapes in ultra-dense fusion type plasmas is discussed. The application of line-broadening theory to derive a consistent formulation for ionized emitters including ion dynamics, Debye shifts and perturber-ion correlations is outlined. The difficulties in extending the standard theories are explored with special emphasis given to the modifications necessary to treat the cases which occur in the experimental situations. Preliminary results will be presented.