Dependence of the Air-Fluorescence Yield on Electron Energy

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The fluorescence yield of nitrogen (air) induced by electrons is related with several molecular parameters according to well established relationships. Experimental cross sections available in the literature in combination with theoretical data on Franck-Condon factors and branching ratios can be used for the calculation of the fluorescence yield in a wide energy range (keV - GeV). Some results are compared with available measurements.