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Lifetime and Branching Fraction Measurements for P II [1]
STEPHANIE TOROK, MIKE BROWN, RICHARD IRVING, STEVEN FEDERMAN, LORENZO CURTIS, University of Toledo — Lifetime and branching fraction measurements using foil excitation of a fast ion beam are reported for transitions within the $3s^2\ 3p^2 - 3s^2\ 3p4s$ multiplet in P II. The studies were undertaken to test theoretical and semiempirical calculations which suggest that branching fractions within this multiplet can be accurately specified from intermediate coupling amplitudes deduced from measured energy level data. The results and their possible use a much-needed intensity calibration standard in the vacuum ultraviolet wavelength region will be discussed.

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