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Relative Transition Probabilities of Rare Gases DANIEL DELANIS, KATHERINE DUNCAN-CHAMBERLIN, NAVEED PIRACHA, John Carroll University — We have measured relative transition probabilities for emissions from the noble gasses using hollow cathode lamps. Relative transition probabilities are reported for thirty lines from Ne I, twenty-four lines from Ar I, fourteen lines from Kr I, and twenty-one lines from Xe I. All transitions discussed are from the 2p level to 1s levels. Uncertainty has been measured and found to be within 5%. This data can be applied to calibrate the relative detection efficiency of a spectrometer over a range of 4000 Å–10000 Å. Comparisons between the relative transition probabilities of each species is discussed.

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