

# Probability estimators of oxygen abundance based on calibrations made with the direct method

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We present here a new approach to derive oxygen abundances based on strong-lines indicators calibrated through a large catalog of HII regions with estimations based on the so-called direct method (Te-based on weak auroral lines).

Our method uses all the possible lines ratios and provides the best estimation of the oxygen abundance based on a probability distribution for a subset of pair of line ratios.

With the current approach we provide with a calibration with an error of the order of 0.09 dex.