

**THE HPLC SEPARATION OF A MIXTURE OF HERBICIDES: EFFECTS
OF TEMPERATURE AND GRADIENT STEEPNESS.**

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ABSTRACT

The application of a practical approach for the optimization of the separation of a mixture of 14 non-ionic herbicides and degradation products with reverse phase HPLC is presented. The separation method is based on the simultaneous optimization of temperature (T) and gradient steepness (*b*) as a means of varying selectivity and achieving an acceptable resolution. The effect of flow rate is also examined. Preheating the solvents stream before its entrance in the analytical column is necessary in order to avoid peak broadening. The overall separation is achieved within a few experiments.