

Theoretical Plate N Estimate for Real Samples - HPLC Primer

One can estimate a reasonable plate number for any column as:

$$N \approx 300 L/d_p$$

L is the column length (*in millimeters*) and d_p is the particle diameter (*in micrometers*).

For example for 250 mm x 4.6 mm column packed with 5 micron particles, the predicted value is

$$N \approx 15,000$$

If the measured value of N is about 20% of this predicted value, the column is in good conditions.



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