

When this exponential stage is reached, the extrusion is considered as achieved and the assumption is made that the change in volume of the cell is proportional to the piston displacement. On the other hand, the pressures which are generated inside the cell are related the overall compressibility of its components through a law, which can be shown empirically to be close to an exponential with a good approximation within the range of experimentation. (28). From these considerations an expression of the calibration curve follow :

$$P = - A \log (B + \exp - F/k)$$

A, B and C are constants which can be evaluated knowing accurately at least three experimental values. They will be chosen among the best known transition points ($B_i 1 - 2, T_1, B_a$). It is obvious that when the load F is increased indefinitely the pressure P must go to a limiting value, which is the case with the above expression provided that B is positive. It also gives curves whose concavity is towards increasing load as expected.

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