Supplementary Table 1. F-tests comparing common intercept (*K*i in equation 2) or slope (-1/σ) with independent lines (i.e., best fit lines), and one line with either common intercept or common slope, within each sorption series (de-1, ad-1, de-2, adsorption-2) for seeds equilibrated at 30, 40, 50, 60 and 70% RH.

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| Sorption cycle | Model | Comparison | F (df1, df2) | *P* |
| Oilseed rape | | | | |
| Desorption 1 | Common intercept | Independent | 0.34 (4, 15) | 0.85 |
| Common slope | Independent | 21.86 (4, 15) | <0.0001 |
| One line | Common intercept | 129.90 (4, 19) | <0.0001 |
| One line | Common slope | 16.76 (4, 19) | <0.0001 |
| Adsorption 1 | Common intercept | Independent | 2.16 (4, 16) | 0.12 |
| Common slope | Independent | 33.68 (4, 16) | <0.0001 |
| One line | Common intercept | 81.94 (4, 21) | <0.0001 |
| One line | Common slope | 9.22 (4, 21) | <0.0001 |
| Desorption 2 | Common intercept | Independent | 0.61 (4, 24) | 0.66 |
| Common slope | Independent | 27.47 (4, 24) | <0.0001 |
| One line | Common intercept | 103.0 (4, 28) | <0.0001 |
| One line | Common slope | 14.70 (4, 28) | <0.0001 |
| Adsorption 2 | Common intercept | Independent | 0.34 (4, 21) | 0.85 |
| Common slope | Independent | 16.15 (4, 21) | <0.0001 |
| One line | Common intercept | 59.14 (4, 25) | <0.0001 |
| One line | Common slope | 10.82 (4, 25) | <0.0001 |
| Barley | | | | |
| Desorption 1 | Common intercept | Independent | 0.21 (4, 15) | 0.93 |
| Common slope | Independent | 13.70 (4, 15) | <0.0001 |
| One line | Common intercept | 66.13 (4, 19) | <0.0001 |
| One line | Common slope | 11.32 (4, 19) | <0.0001 |
| Adsorption 1 | Common intercept | Independent | 2.61 (4, 23) | 0.06 |
| Common slope | Independent | 53.13 (4, 23) | <0.0001 |
| One line | Common intercept | 122.1 (4, 27) | <0.0001 |
| One line | Common slope | 12.51 (4, 27) | <0.0001 |
| Desorption 2 | Common intercept | Independent | 1.20 (4, 16) | 0.35 |
| Common slope | Independent | 37.33 (4, 16) | <0.0001 |
| One line | Common intercept | 175.6 (4, 20) | <0.0001 |
| One line | Common slope | 17.73 (4, 20) | <0.0001 |
| Adsorption 2 | Common intercept | Independent | 0.09 (4, 22) | 0.99 |
| Common slope | Independent | 40.80 (4, 22) | <0.0001 |
| One line | Common intercept | 123.2 (4, 26) | <0.0001 |
| One line | Common slope | 9.16 (4, 26) | <0.0001 |