0.0

-0.5

-1.0

Molecular weight 0.86 0.33 4.4e-17 -0.38 0.55 0.053 0.12 -0.13 -0.073 -0.17 -0.14 -0.0069 -0.64 -0.14 0.47 Surface area 0.86 0.049 -9.6e-19 -0.55 0.59 0.073 0.13 -0.2 -0.091 0.27 -0.23 -0.11 0.07 -0.6 -0.16 Dipole moment -0.13 0.33 0.049 1.1e-17 -0.075 0.49 -0.0084 -0.0045 **0.15** 0.43 -0.13 -0.039 -0.57 -0.35 -0.15 Chain length 4.4e-17 -9.6e-19 1.1e-17 -0.41 -0.13 0.91 -0.17 0.9 -0.6 0.2 0.011 -0.4 COF -0.075 -0.41 -0.53 -0.025 0.5 0.29 -0.38 -0.55 -0.49 -0.028 -0.3 0.36 -0.26 Intercept 0.024 0.0018 1 -0.11 -0.69 0.59 -0.13 -0.53 -0.026 -0.073 0.46 -0.39 -0.3 0.49 Nematic order 0.053 0.073 -0.0084 0.91 -0.49 -0.026 0.0056 0.83 -0.44 0.13 0.055 0.012 -0.33 -0.53 Δ Nematic order 0.12 0.13 -0.0045 -0.17 -0.028 0.21 0.0056 -0.14 0.34 0.017 0.093 -0.13 -0.078 -0.11 Tilt angle -0.13 -0.2 0.15 0.9 -0.3 -0.073 0.83 -0.14 -0.59 0.034 0.46 -0.043 -0.18 0.24 -0.34  $\triangle$  Tilt angle -0.073 -0.091 -0.13 -0.6 0.36 -0.11 -0.44 0.34 -0.59 -0.23 -0.035 -0.28 -0.022 0.25 0.13 Interdigitation 0.2 -0.26 0.46 0.13 0.017 -0.23 0.48 -0.48 0.27 0.43 0.24 -0.35 -0.13 -0.17 Δ Interdigitation -0.17 0.33 -0.39 0.055 -0.078 -0.035 -0.017 0.71 0.14 -0.044 0.099 0.034 Roughness -0.14 -0.11 -0.039 0.44 -0.025 0.024 0.27 -0.11 0.46 -0.28 0.48 -0.017 0.035 -0.031 -0.16 Δ Roughness -0.0069 0.07 -0.051 -0.047 -0.15 0.026 0.0018 0.012 0.093 -0.043 -0.022 0.035 0.011 0.71 Interaction energy -0.57 -0.22 -0.69 1 -0.6 0.5 -0.33 -0.13 -0.18 -0.48 -0.031 -0.051 0.51 0.25 0.14 Δ Interaction energy -0.14 -0.16 -0.35 -0.53 -0.083 -0.34 0.13 -0.17 -0.044 1 -0.4 0.29 -0.3 -0.16 -0.047 0.51 Interaction energy A Interaction energy Dipole moment Nematic Order A Roughness Surface area Nematic order A Tilk angle Interdigitation A Interdigitation Chain length Tilk angle Royanness CO<sup>x</sup>