Electronic Supplementary Material (ESI) for Soft Matter.

Supporting Information: Conceptualizing flexible papers using cellulose model surfaces and polymer particles

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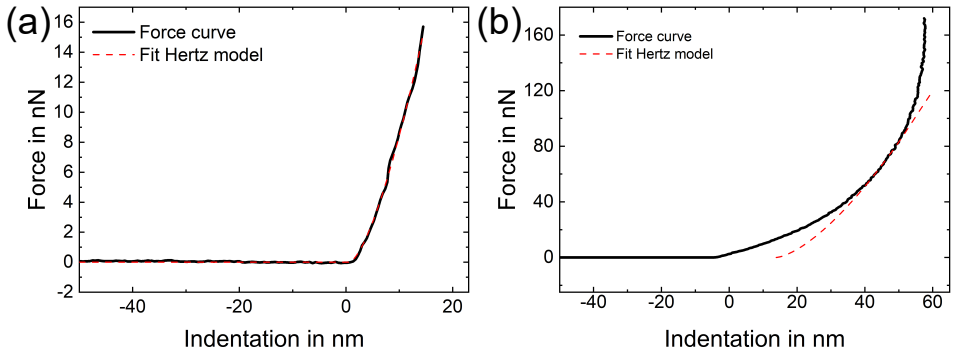

Figure S1: Exemplary force curves and fitting at (a) low indentations and (b) high indentation using an offset in the Hertz model.

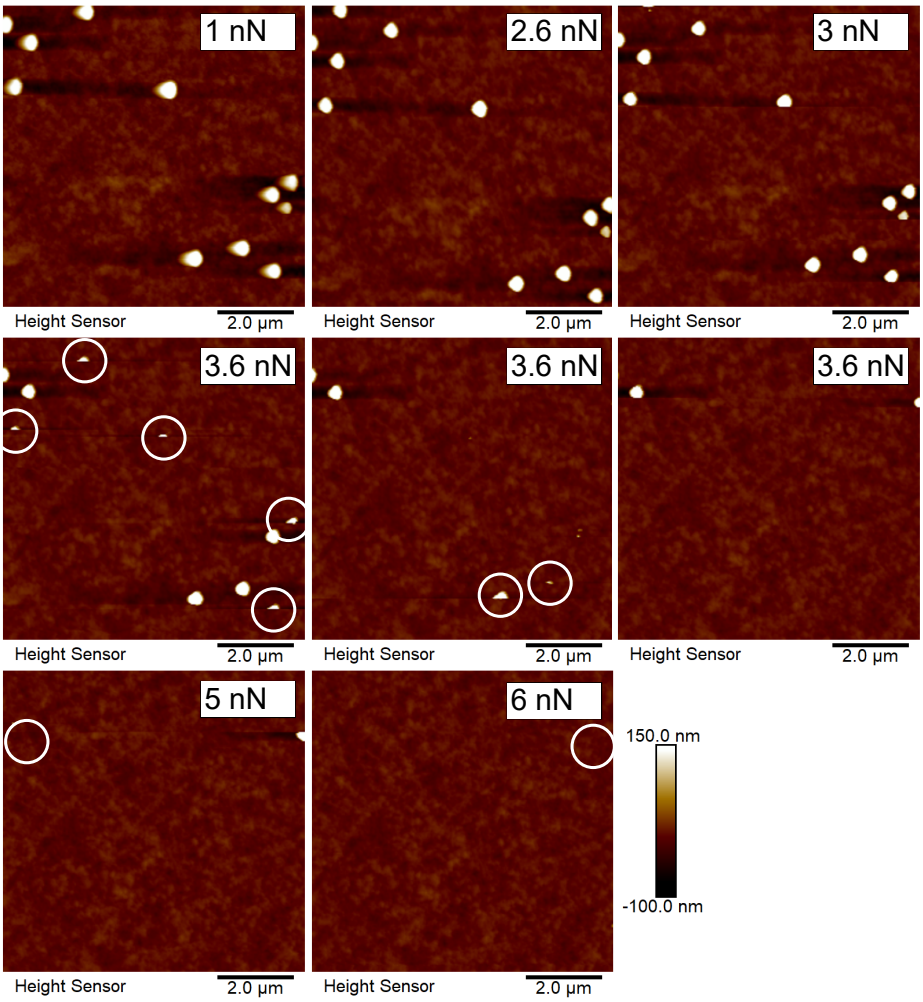

Figure S2: Exemplary results of the pushing particles measurement for the CSP on CMS at pH 3. All images have a size of 8 x 8 µm and a height scale of 250 nm. The movement of the particles is monitored and shown here with the white markers.

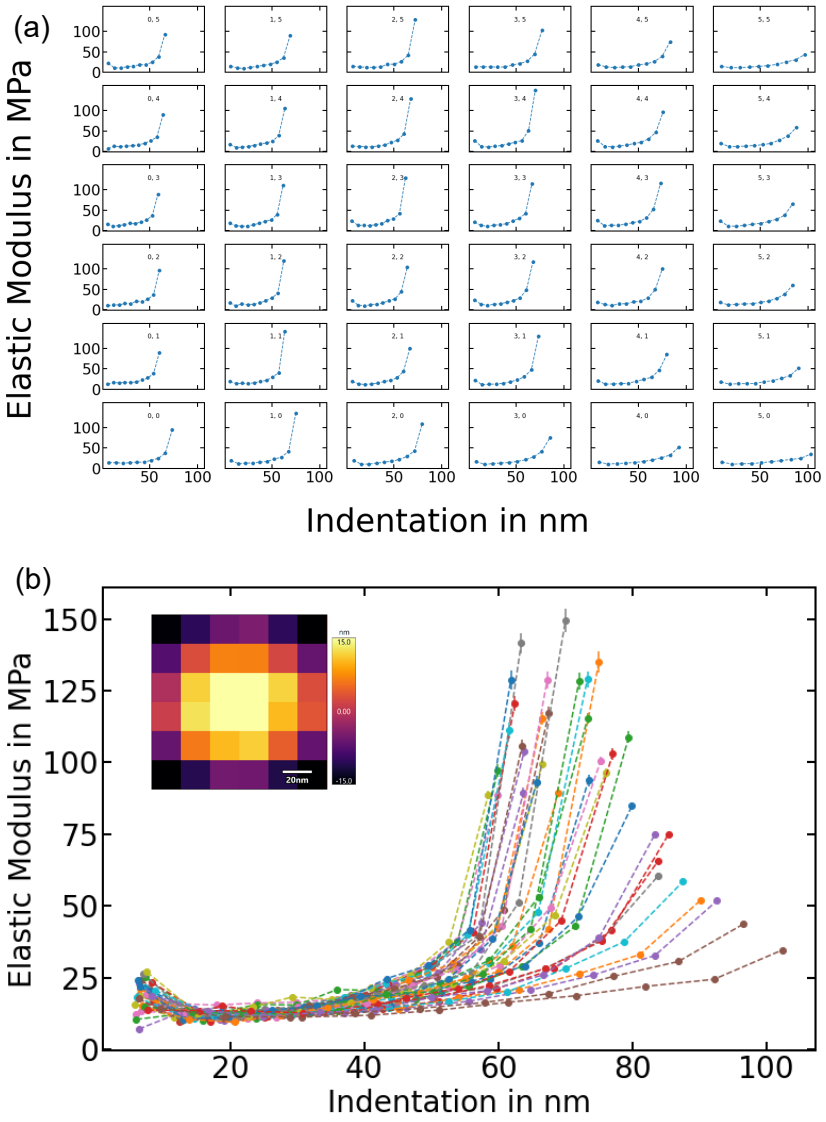

Figure S3: Indentation measurements of the CSP at varying indentation depth. (a) shows the E modulus in dependence of the indentation depth for specific position measured at the center of the particle. The graphs are ordered to match the height map shown in (b) which has a size of 100 x 100 nm. (b) also shows all the E moduli curves superimposed for easier comparison.

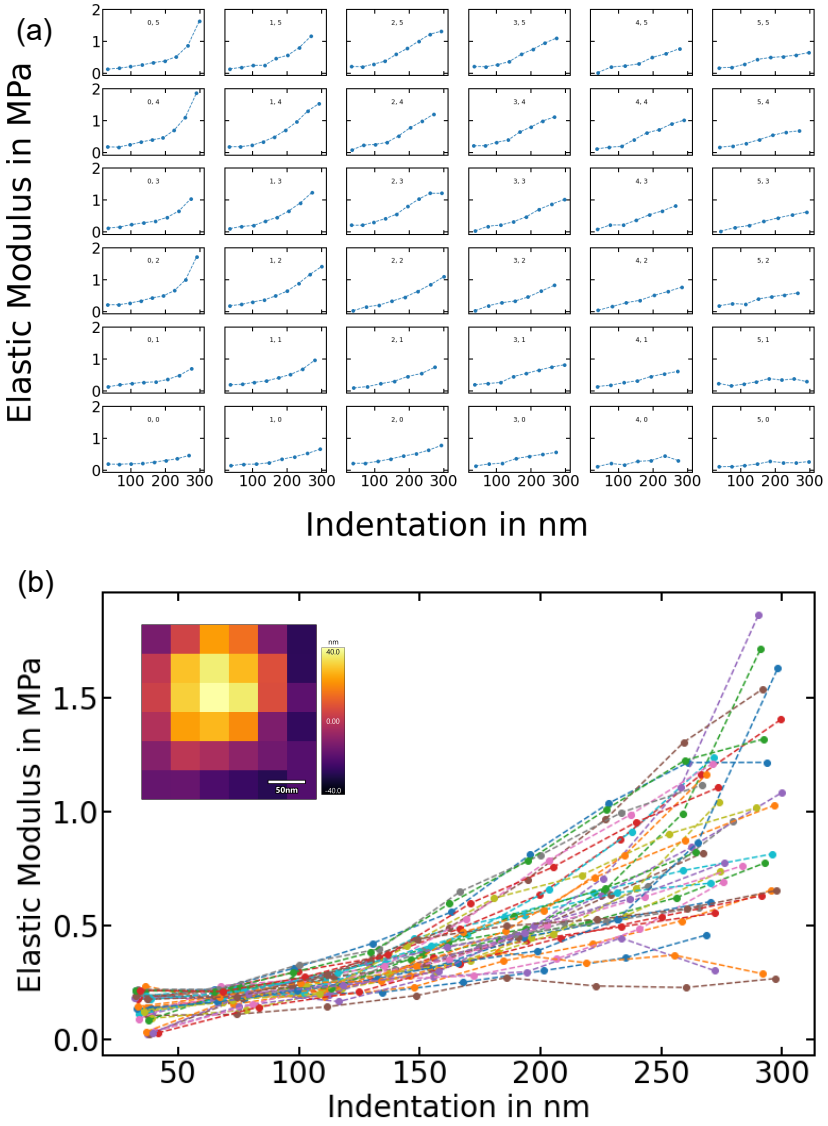

Figure S4: Indentation measurements of the MG at varying indentation depth. (a) shows the E modulus in dependence of the indentation depth for specific position measured at the center of the particle. The graphs are ordered to match the height map shown in (b) which has a size of 200 x 200 nm. (b) also shows all the E moduli curves superimposed for easier comparison.