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Supporting information for article:

SOLEIL SHINING ON THE SOLUTION-STATE STRUCTURE OF BIOMACROMOLECULES BY SYNCHROTRON X-RAY FOOTPRINTING AT THE METROLOGY BEAMLINE

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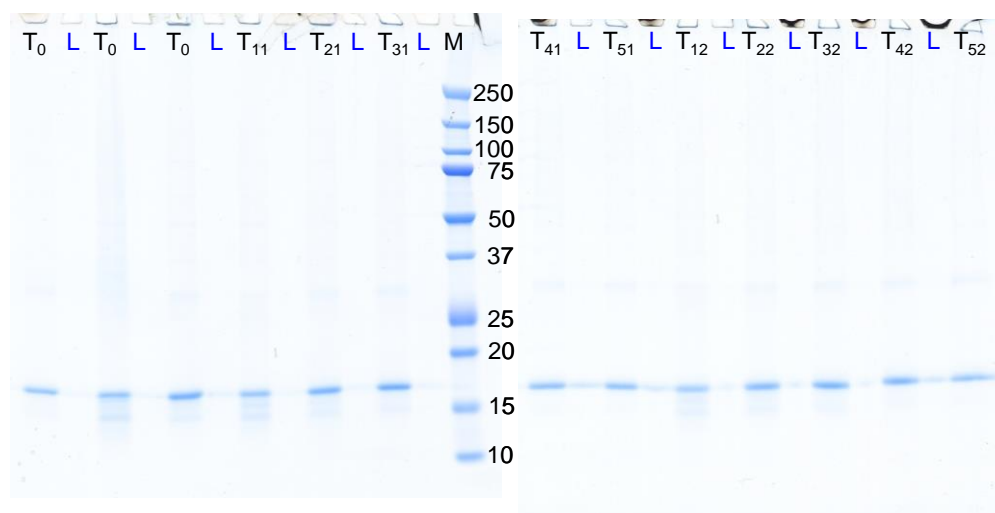
Figure S1 *SDS-PAGE of oil bodies purified from S. cerevisiae expressing S3 oleosin and irradiated by X-ray beam from 0 to 100 ms.* Three non-irradiated samples (T0) were injected, followed by two series of irradiated samples (series T_{x1} and T_{x2}) submitted to increasing irradiation time *(2.5 ms [x = 1]; 10 ms [x = 2]; 25 ms [x = 3]; 50 ms [x = 4]; 100 ms [x = 5])*. The intermediate washing fractions (L) were also analyzed in order to check all collected fractions.
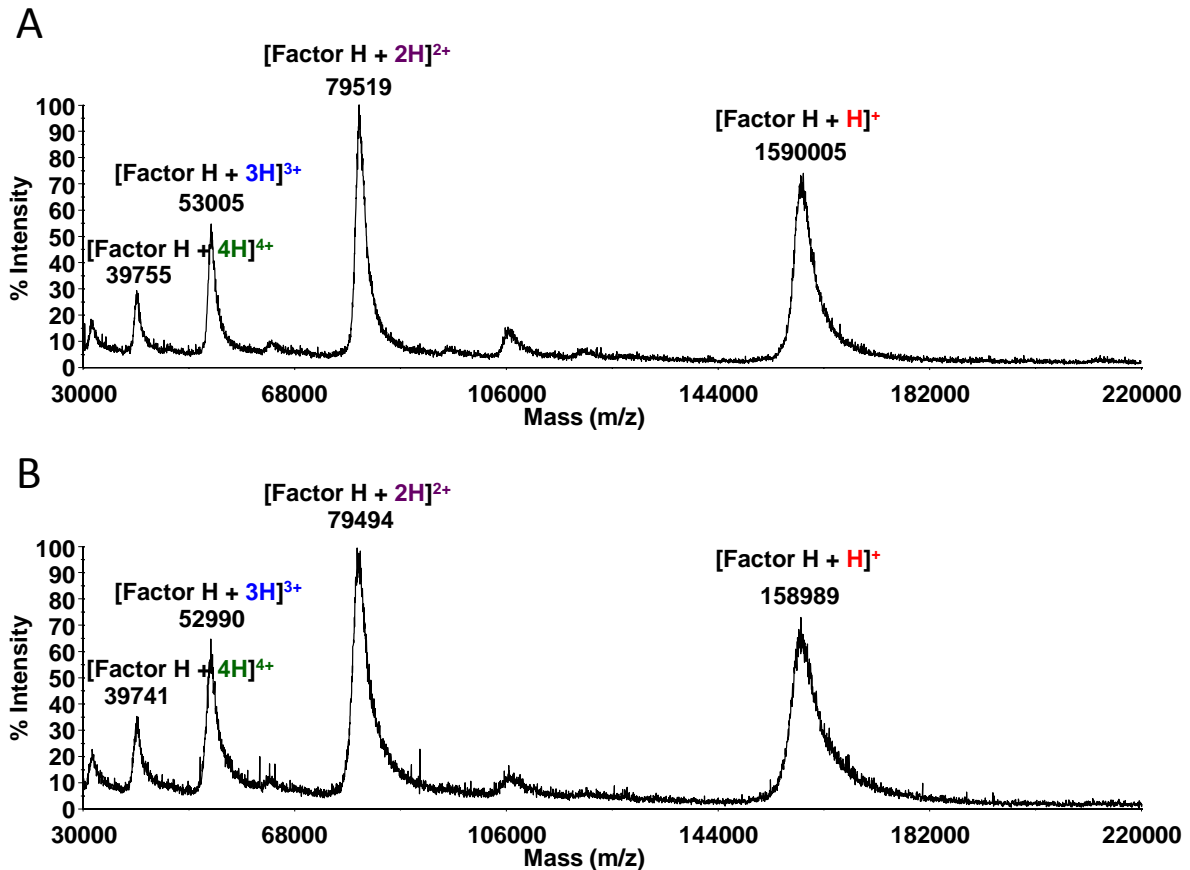
Figure S2 *Mass spectrometry control of synchrotron-irradiated FH.* Positive MALDI-TOF mass spectrum in linear mode of Factor H (2 pmol spotted) before (A) and after (B) synchrotron irradiation for 30 ms. Please note that no mass shift of FH molecular weight was observed after the irradiation, confirming the integrity of the protein. Irradiation-specific mass shift could not be observed due to the low resolution of the MALDI-TOF MS. Matrix is 2,4,6-trihydroxyacetophenone (THAP) at 10 mg/mL in acetontrile/water (50:50 v/v) 0.1% trifluoroacetic acid. MALDI parameters: Voltage: 25 kV, grid %: 70%, extraction delay: 1000 ns, laser attenuation (λ=337 nm): 3400 arbitrary units and 500 laser shots were averaged.

Table S1 *Quantification of S3 oleosin bands from fig. S1 gel by using gel densitometry (MultiGauge software)*. Determined optical densities after background subtraction where normalized by the average intensity of the non-irradiated sample.

Irradiation time (ms)	0	2.5	10	25	50	100
Relative S3 gel band density	100 ± 21	82 ± 8	118 ± 13	128 ± 10	106 ± 11	87 ± 0.8