

*Supplementary Information*

**Oxidative stress via UVC irradiation on the structural rearrangement of Hen  
Egg White Lysozyme**

Debdip Brahma and Amar Nath Gupta<sup>1\*</sup>

<sup>1</sup> Biophysics and Soft Matter Laboratory, Department of Physics, Indian Institute of Technology Kharagpur,  
721302, India

\* Corresponding author, *Email address:* [ang@phy.iitkgp.ac.in](mailto:ang@phy.iitkgp.ac.in) (A.N. Gupta)

Table 1. Changes in the secondary structure of Lysozyme with heating/cooling

Temperature (°C)	$\alpha$ -helix (%)	$\beta$ -sheet (%)	Unordered (%)	Turn (%)
20	34 ± 3	16 ± 3	30 ± 3	20 ± 2
30	36 ± 5	13 ± 2	32 ± 8	18 ± 5
40	36 ± 5	15 ± 3	31 ± 6	18 ± 4
50	36 ± 4	15 ± 2	30 ± 5	19 ± 4
60	37 ± 6	15 ± 3	28 ± 7	21 ± 4
70	28 ± 2	15 ± 3	37 ± 5	19 ± 1
80	15 ± 1	20 ± 3	48 ± 5	16 ± 2
90	12 ± 3	20 ± 3	53 ± 2	15 ± 2
80	11 ± 4	27 ± 6	51 ± 3	14 ± 4
70	15 ± 9	29 ± 7	44 ± 5	16 ± 4
60	11 ± 5	27 ± 1	44 ± 4	19 ± 1
50	10 ± 3	33 ± 2	36 ± 6	21 ± 1
40	11 ± 4	31 ± 6	37 ± 9	19 ± 1
30	11 ± 3	33 ± 4	33 ± 9	22 ± 4
20	11 ± 7	32 ± 3	38 ± 3	19 ± 1

Table 2. Changes in the secondary structure of UVC-exposed Lysozyme with heating/cooling

Temperature (°C)	$\alpha$ -helix (%)	$\beta$ -sheet (%)	Unordered (%)	Turn (%)
20	7 ± 1	34 ± 4	37 ± 9	22 ± 5
30	9 ± 3	33 ± 1	37 ± 7	21 ± 5
40	9 ± 4	30 ± 8	39 ± 9	18 ± 3
50	7 ± 4	31 ± 5	41 ± 9	22 ± 8
60	10 ± 5	33 ± 9	37 ± 9	25 ± 4
70	10 ± 1	28 ± 5	38 ± 8	24 ± 7
80	8 ± 1	24 ± 5	45 ± 3	22 ± 7
90	4 ± 1	32 ± 1	52 ± 5	13 ± 2
80	8 ± 2	30 ± 7	38 ± 8	23 ± 9
70	10 ± 1	29 ± 4	38 ± 7	23 ± 6
60	9 ± 1	30 ± 4	39 ± 7	23 ± 6
50	9 ± 1	25 ± 4	38 ± 9	17 ± 1
40	9 ± 1	33 ± 9	45 ± 3	13 ± 6
30	6 ± 3	26 ± 7	48 ± 2	15 ± 4
20	9 ± 4	32 ± 9	36 ± 9	18 ± 5