

Supporting Information

Anodic oxidative modification of egg white for heat treatment

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Additional figures and original figures of PAGE analysis

Native-PAGE

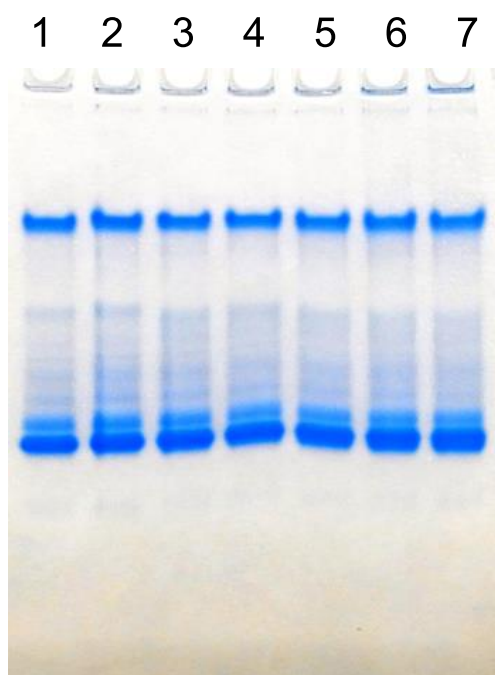


Figure S1

Lane 1: 0 C without salts; Lane 2: 0 C; Lane 3: 19.3 C; Lane 4: 38.6 C; Lane 5: 57.9 C;

Lane 6: 116 C; Lane 7: 174 C

(Carried out with TEFCO unit)

SDS-PAGE

Without 2-mercaptoethanol

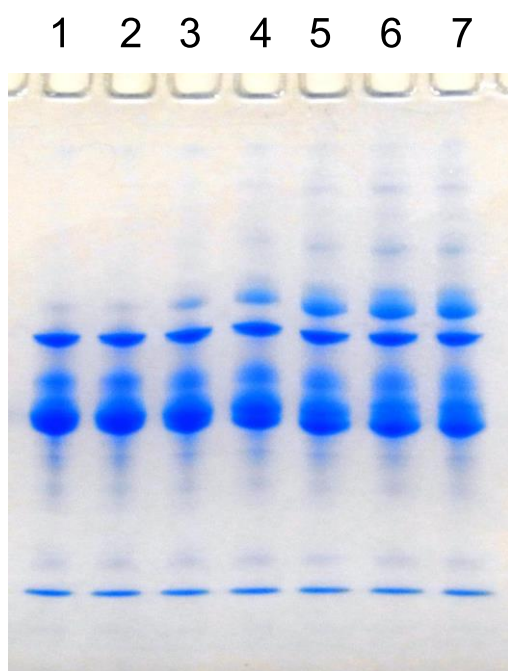


Figure S2

Lane 1: 0 C without salts; Lane 2: 0 C; Lane 3: 19.3 C; Lane 4: 38.6 C; Lane 5: 57.9 C;

Lane 6: 116 C; Lane 7: 174 C

(Carried out with TEFCO unit)

With 2-mercaptoethanol

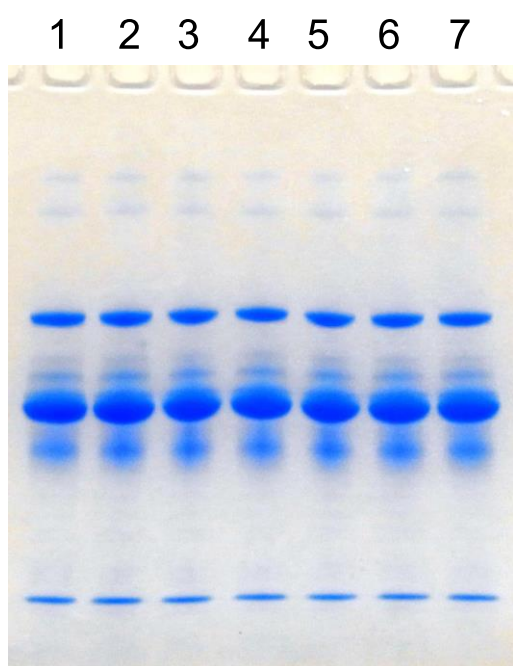


Figure S3

Lane 1: 0 C without salts; Lane 2: 0 C; Lane 3: 19.3 C; Lane 4: 38.6 C; Lane 5: 57.9 C;

Lane 6: 116 C; Lane 7: 174 C

(Carried out with TEFCO unit)

Identification of protein bands

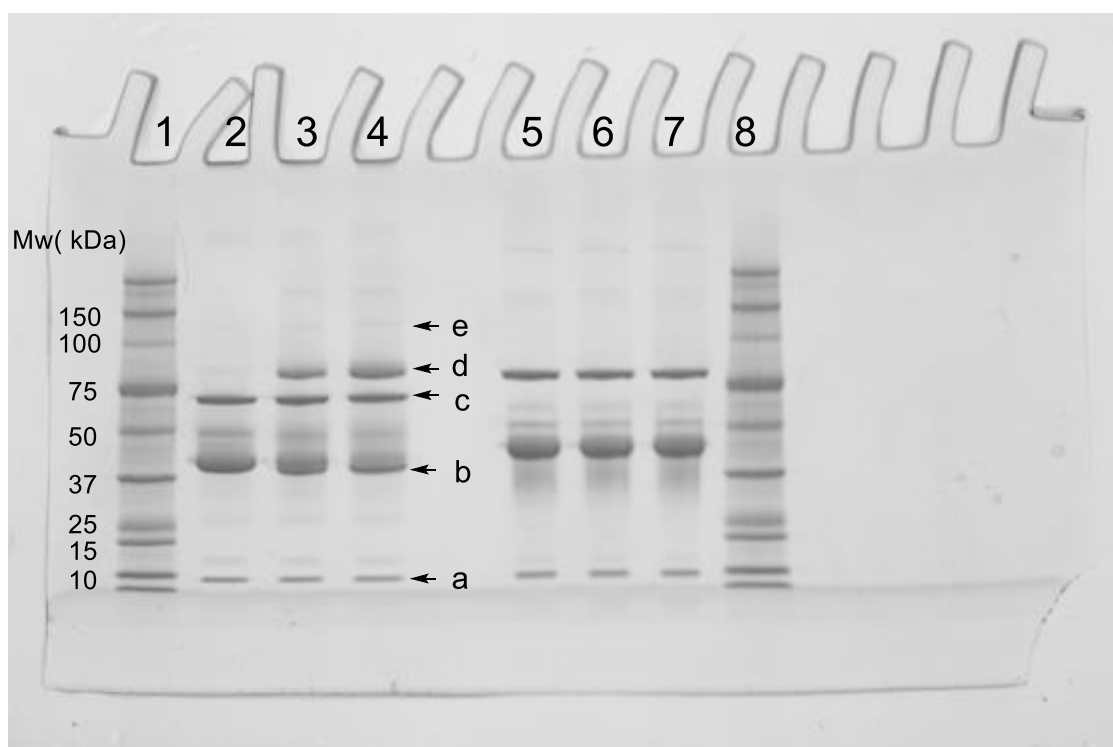


Figure S4

Without 2-mercaptoethanol (Lane 2: 0 C; Lane 3: 57.9 C; Lane 4: 174 C)

With 2-mercaptoethanol (Lane 5: 0 C; Lane 6: 57.9 C; Lane 7: 174 C)

Lane 1, 8: protein marker

a: lysozyme, b: ovalbumin monomer, c: ovotransferrin, d: ovalbumin dimer, e: ovalbumin trimer

(Carried out with DRC unit)

After heat treatment

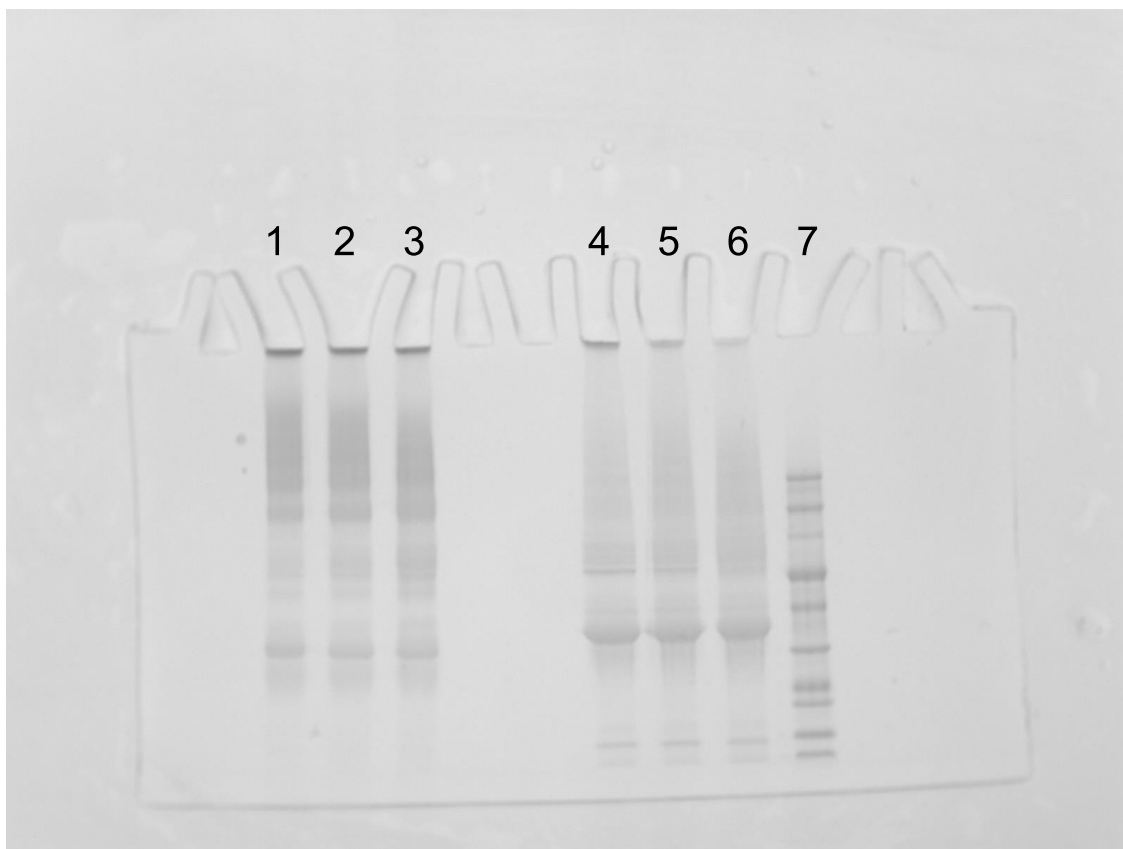


Figure S5

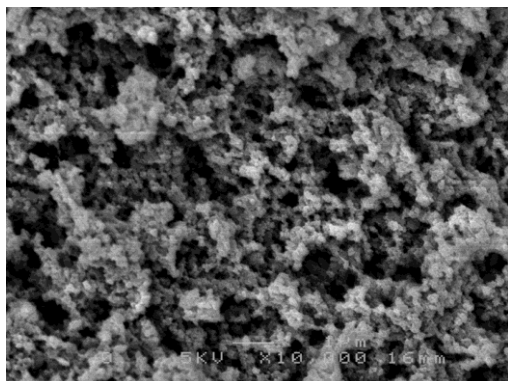
Without 2-mercaptoethanol (Lane 1: 0 C; Lane 2: 38.6 C; Lane 3: 174 C)

With 2-mercaptoethanol (Lane 4: 0 C; Lane 5: 38.6 C; Lane 6: 174 C)

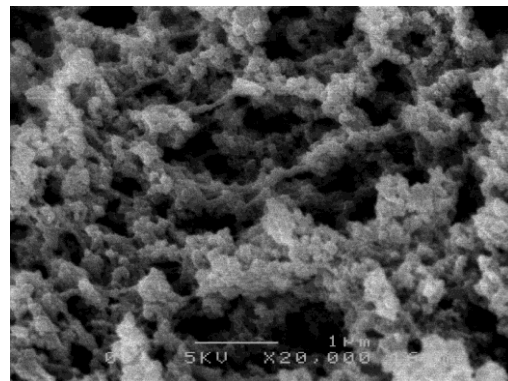
Lane 7: protein marker

(Carried out with DRC unit)

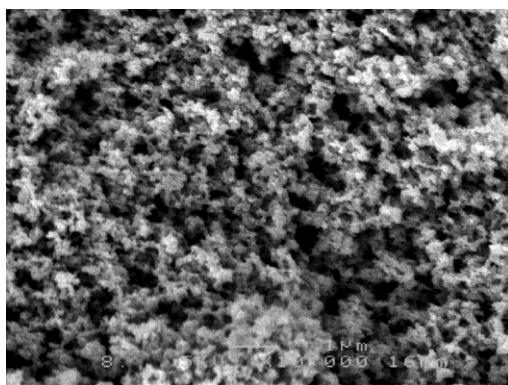
SEM figures



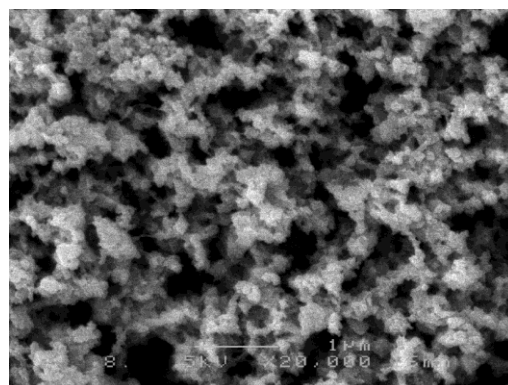
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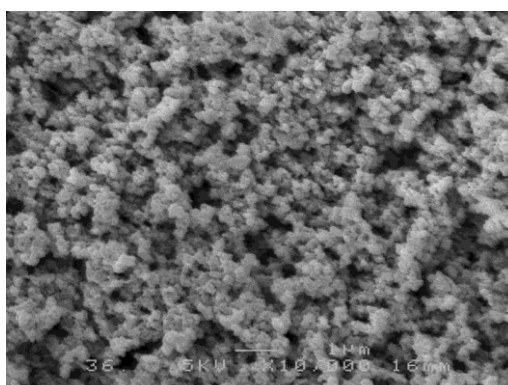
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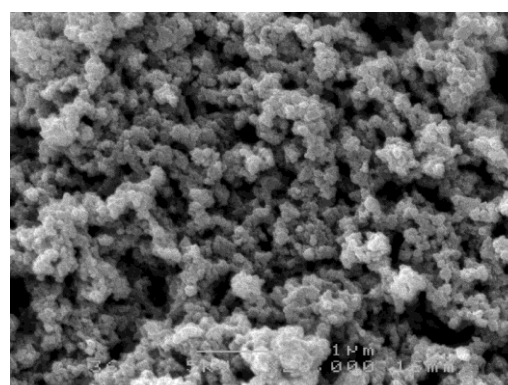
38.6 C x 10,000



38.6 C x 20,000



174 C x 10,000



174 C x 20,000

Figure S6

Figures of apparatus

Glassy carbon electrode

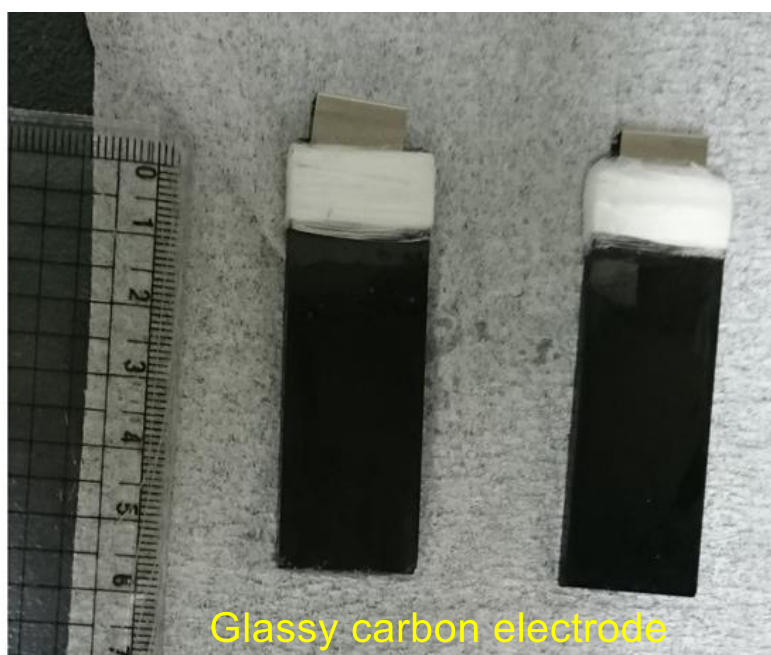


Figure S7

Reaction tube

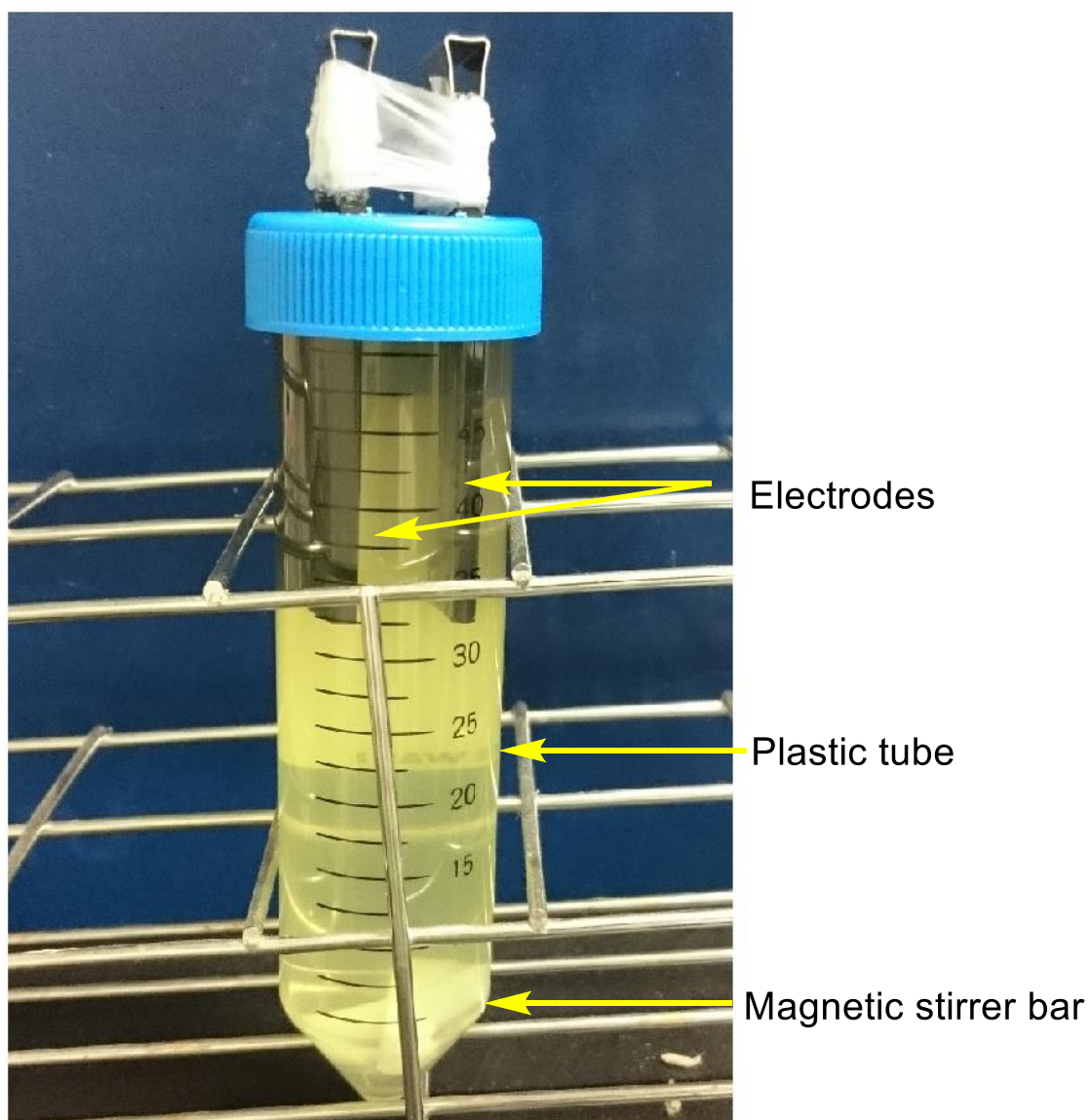


Figure S8



Figure S9