

## Supporting Information

# Ellagitannins with a Glucopyranose Core Have Higher Affinity to Proteins than Acyclic Ellagitannins by Isothermal Titration Calorimetry

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## List of Supporting Information

Figure S1. Examples of thermograms for the interaction of cyclic monomeric ellagitannins with BSA (raw heat data, no control experiments subtracted): A) tellimagrandin I into 30  $\mu\text{M}$  BSA, B) tellimagrandin II into 30  $\mu\text{M}$  BSA and C) geraniin into 40  $\mu\text{M}$  BSA.

Figure S2. Examples of thermograms for the interaction of cyclic dimeric and trimeric ellagitannins with BSA (raw heat data, no control experiments subtracted): A) agrimoniin into 30  $\mu\text{M}$  BSA, B) gemin A into 30  $\mu\text{M}$  BSA, C) sanguin H-6 into 30  $\mu\text{M}$  BSA and D) lambertianin C into 30  $\mu\text{M}$  BSA.

Figure S3. Examples of thermograms for the interaction of acyclic monomeric ellagitannins with BSA (raw heat data, no control experiments subtracted): A) castalagin into 30  $\mu\text{M}$  BSA, B) vescalagin into 30  $\mu\text{M}$  BSA, C) castavalonic acid into 30  $\mu\text{M}$  BSA and D) vescavalonic acid into 30  $\mu\text{M}$  BSA.

Figure S4. Examples of thermograms for the interaction of cyclic monomeric ellagitannins with gelatin (raw heat data, no control experiments subtracted): A) tellimagrandin I into 15  $\mu\text{M}$  gelatin, B) tellimagrandin II into 20  $\mu\text{M}$  gelatin and C) geraniin into 20  $\mu\text{M}$  gelatin.

Figure S5. Examples of thermograms for the interaction of cyclic dimeric and trimeric ellagitannins with gelatin (raw heat data, no control experiments subtracted): A) agrimoniin into 30  $\mu\text{M}$  gelatin, B) gemin A into 30  $\mu\text{M}$  gelatin, C) sanguin H-6 into 30  $\mu\text{M}$  gelatin and D) lambertianin C into 30  $\mu\text{M}$  gelatin.

Figure S6. Examples of thermograms for the interaction of acyclic monomeric ellagitannins with gelatin (raw heat data, no control experiments subtracted): A) castalagin into 20  $\mu\text{M}$  gelatin, B) vescalagin into 20  $\mu\text{M}$  gelatin, C) castavalonic acid into 20  $\mu\text{M}$  gelatin and D) vescavalonic acid into 20  $\mu\text{M}$  gelatin.

Table S1. Estimated Entropies for the Interaction of Ellagitannins with BSA and Gelatin Fitted by Two-Site and One-Site Binding Models

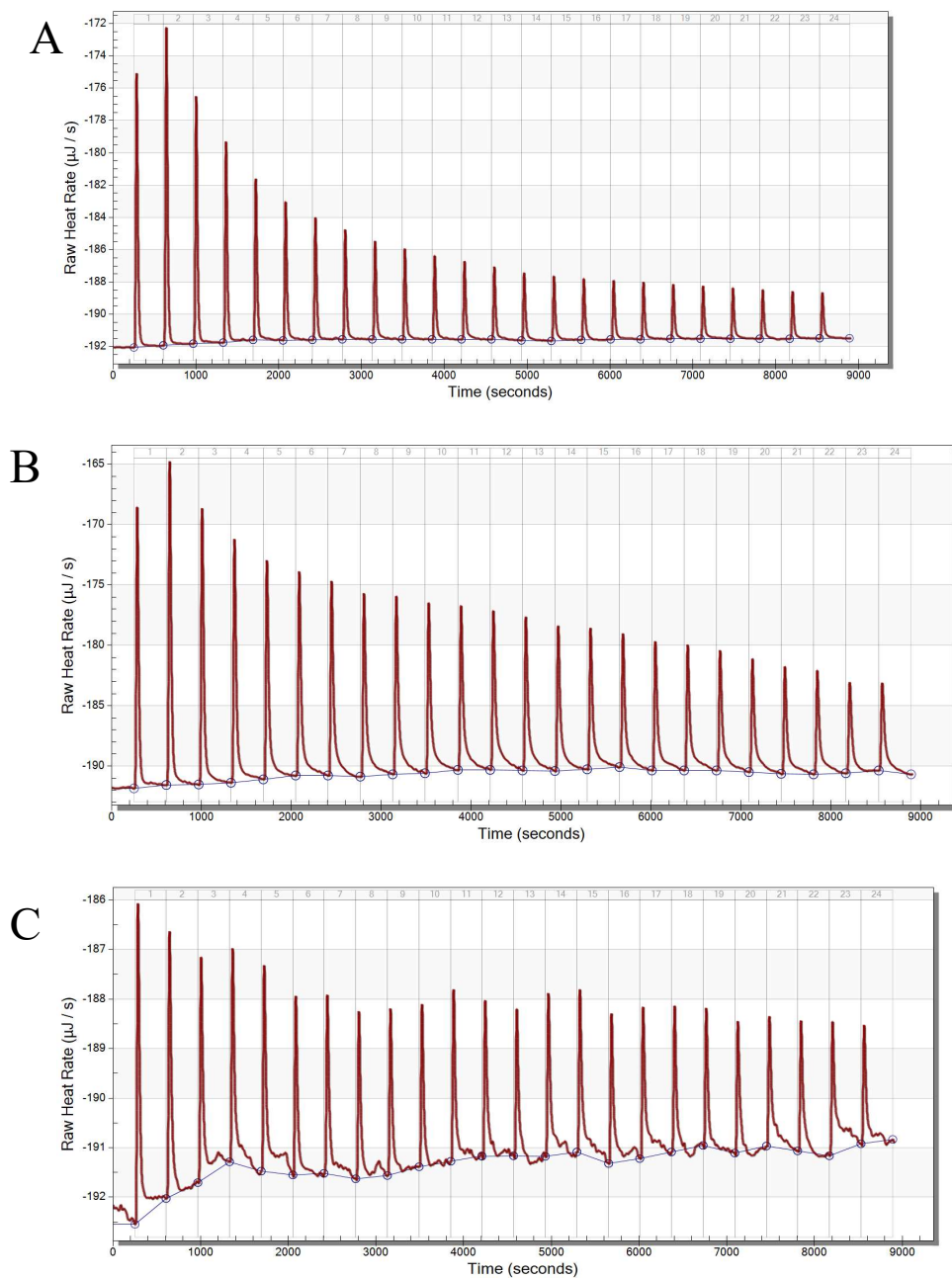


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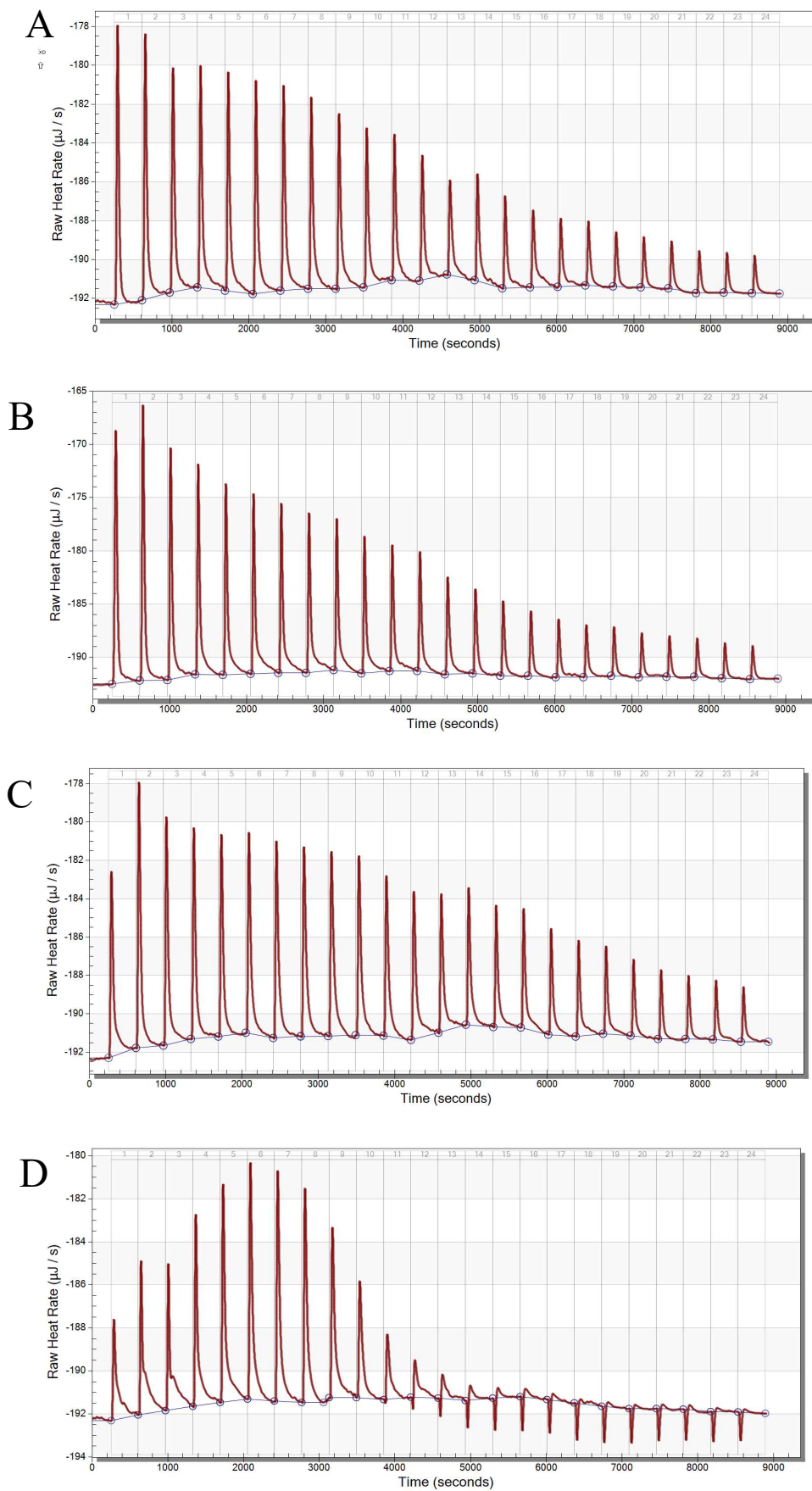


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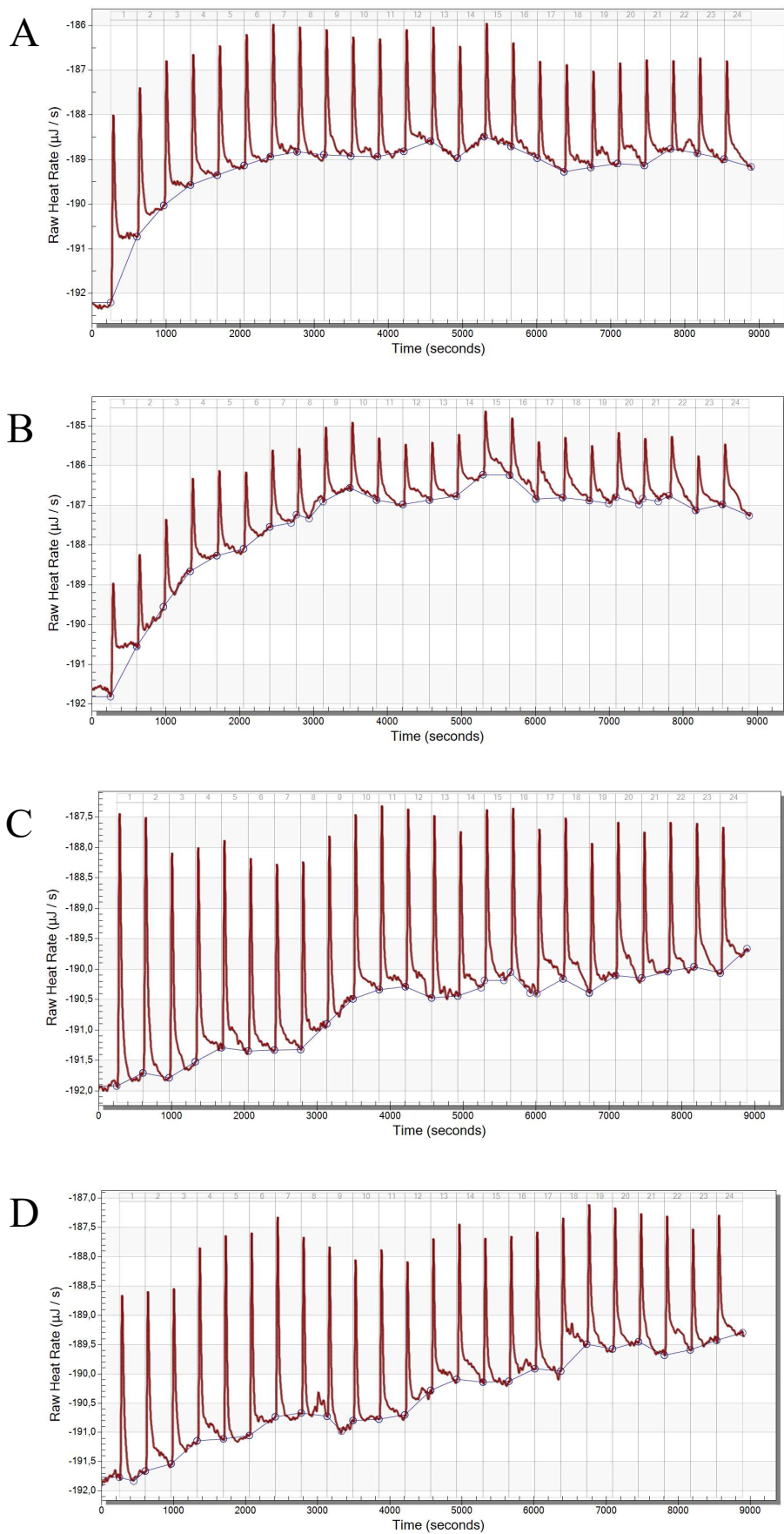


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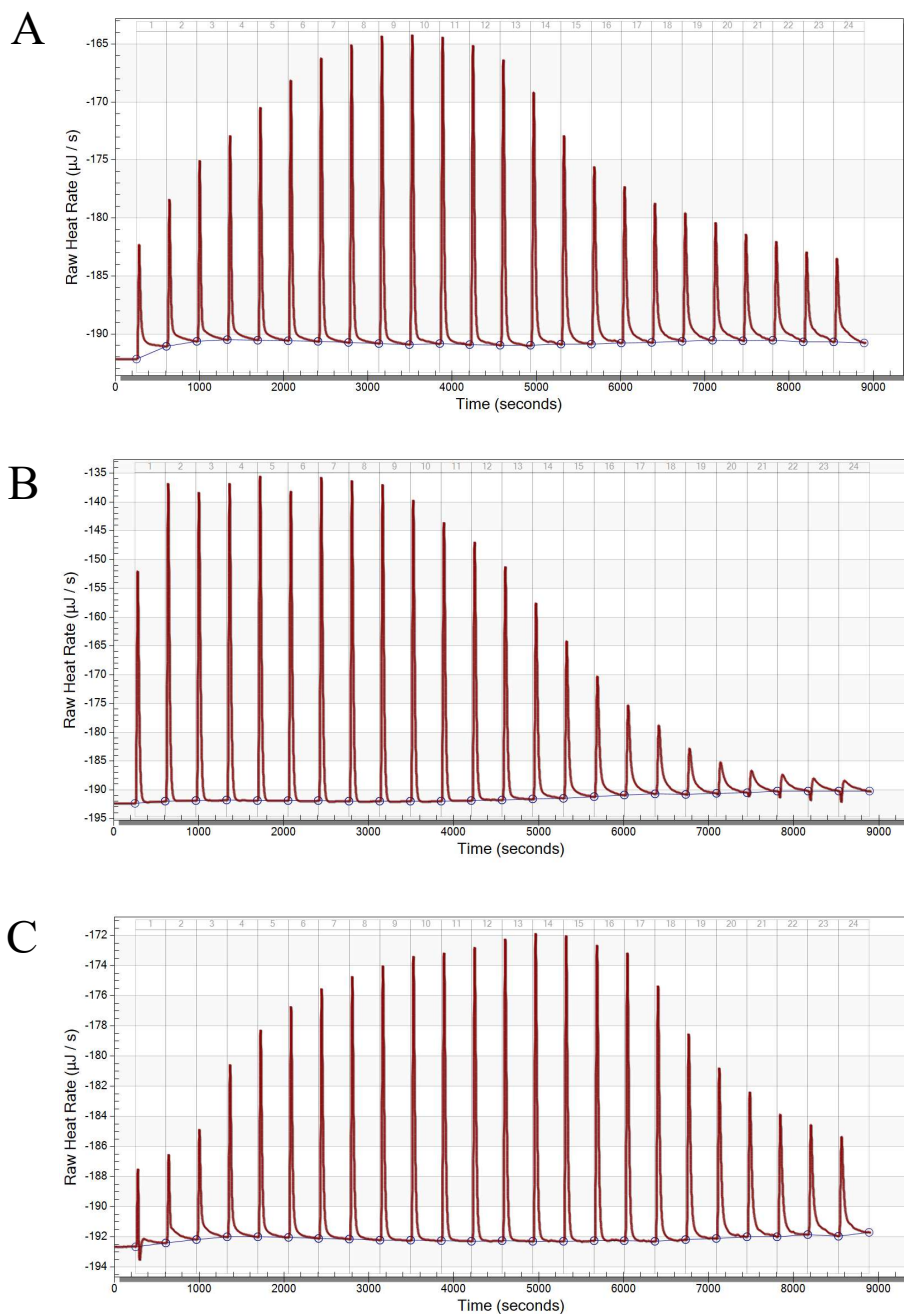


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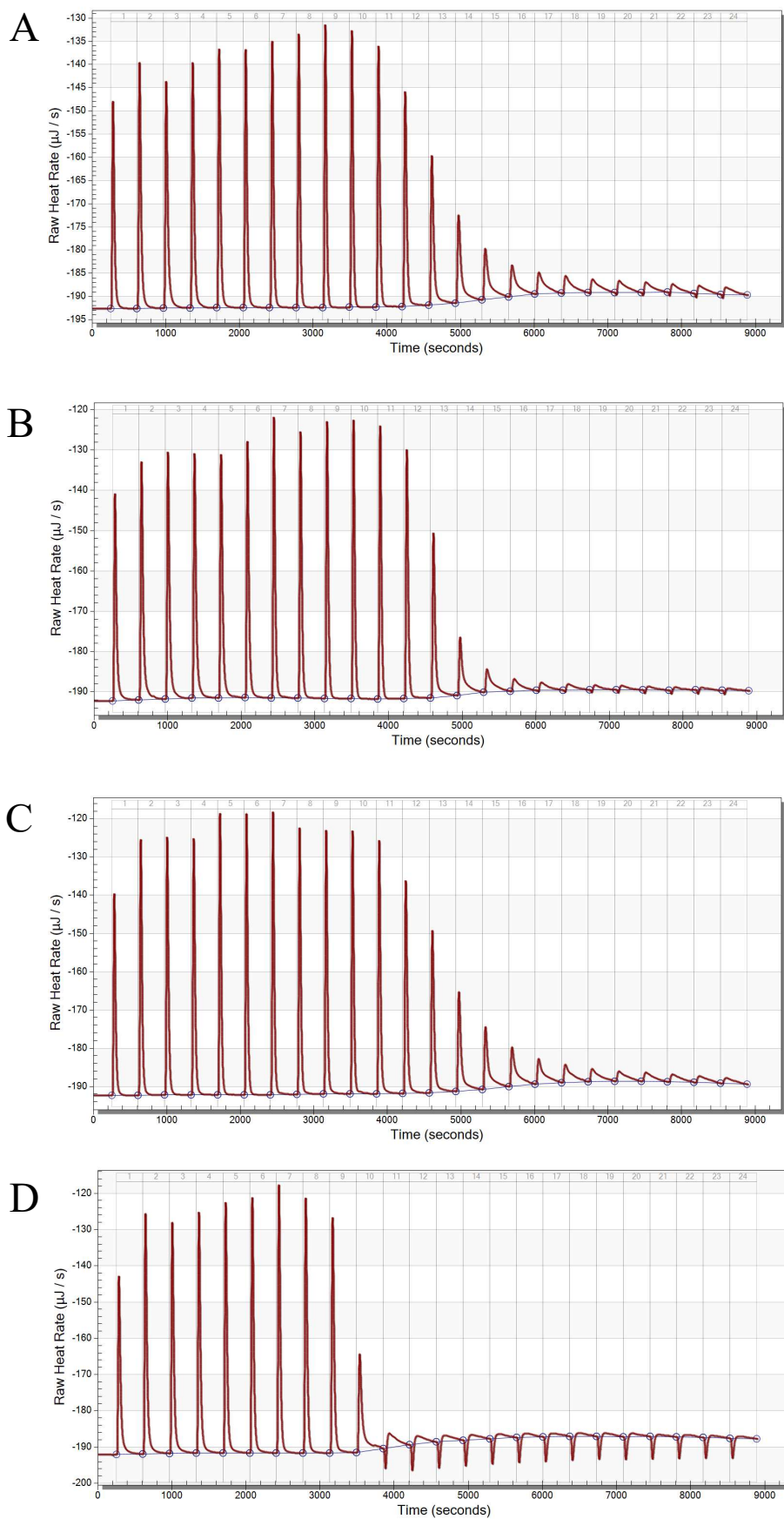


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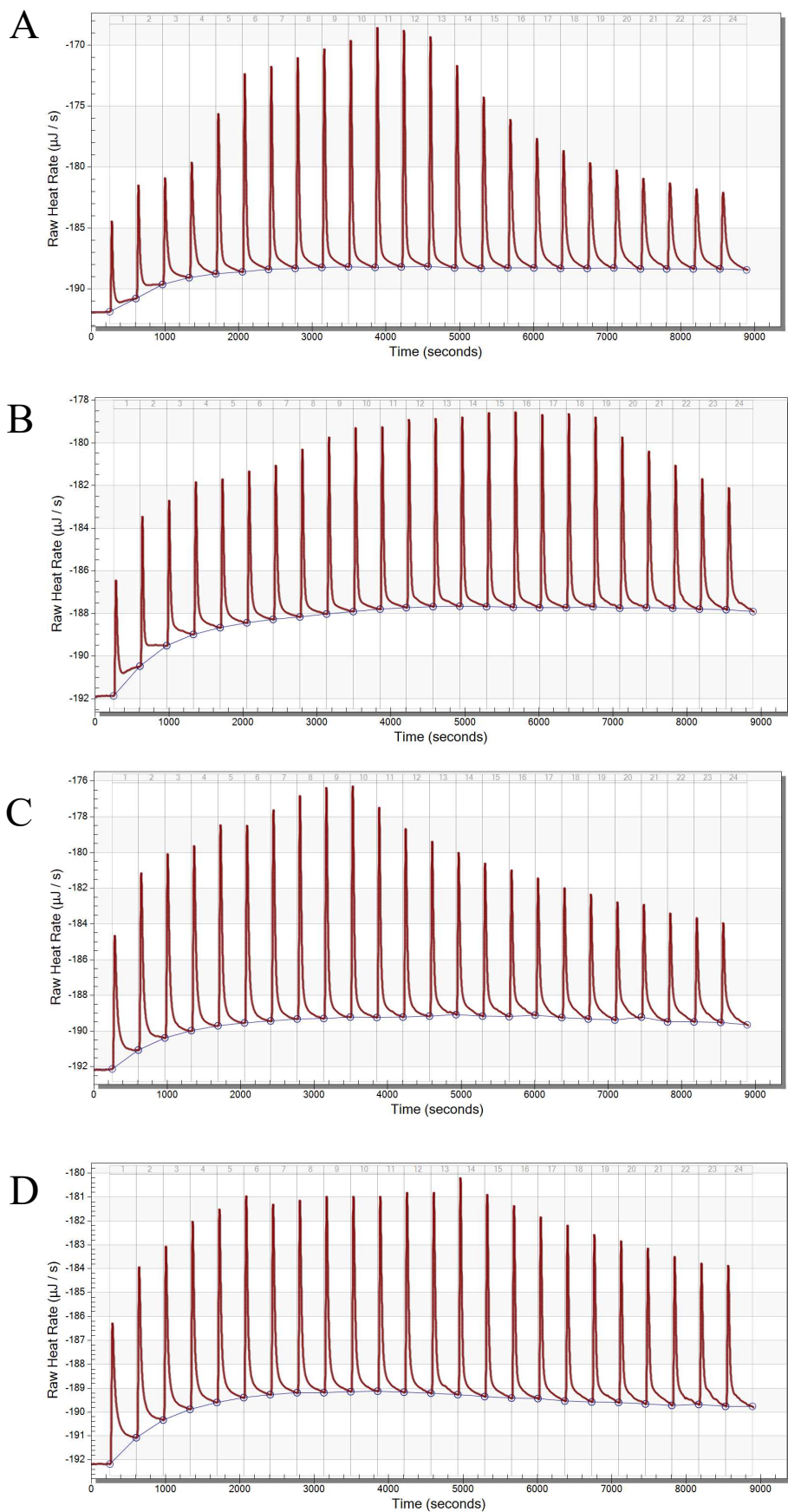


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	Tellimagrandin I	Tellimagrandin II	Agrimoniin	Gemin A	Sanguiin H-6	Roshenin C	Lambertianin C
<b>BSA</b>							
<b>Two-Site</b>							
$\Delta S_1$ (J mol <sup>-1</sup> K <sup>-1</sup> )	15 ± 14	-38 ± 22	26 ± 17	-45 ± 2	28 ± 4		16 ± 7
$\Delta S_2$ (J mol <sup>-1</sup> K <sup>-1</sup> )	18 ± 22	-64 ± 23	28 ± 4	29 ± 7	38 ± 7		46 ± 13
<b>One-Site</b>							
$\Delta S_1$ (J mol <sup>-1</sup> K <sup>-1</sup> )	2 ± 24	-52 ± 25	1 ± 18	-73 ± 14	-8 ± 10		4 ± 7
<b>Gelatin</b>							
<b>Two-Site</b>							
$\Delta S_1$ (J mol <sup>-1</sup> K <sup>-1</sup> )	53 ± 10	-93 ± 1	-117 ± 17	-99 ± 8	-108 ± 14	-2 ± 13	-185 ± 22
$\Delta S_2$ (J mol <sup>-1</sup> K <sup>-1</sup> )	55 ± 8	64 ± 2	44 ± 7	32 ± 4	49 ± 2	31 ± 4	-28 ± 34
<b>One-Site</b>							
$\Delta S_1$ (J mol <sup>-1</sup> K <sup>-1</sup> )	-57 ± 30	-103 ± 7	-163 ± 17	-165 ± 5	-170 ± 9	-112 ± 27	-194 ± 18