

Table 1s. The %BII for each nucleotide step in the C3 methylated sample.

TempK	C1pG2	G2pC3	C3pG4	G4pA5	A5pA6	A6pT7	T7pT8	T8pC9	C9pG10	G10pC11	C11pG12
287.2	46.3	13.9	68.1	28.2	15.0	5.2	8.8	17.5	61.4	48.2	61.4
289.2	46.6	13.6	67.5	29.4	15.6	6.1	7.5	18.0	62.0	48.0	61.2
291.2	47.1	13.6	66.8	30.4	16.2	4.9	7.6	18.1	62.6	48.0	61.2
293.2	47.3	13.2	66.3	31.6	16.4	5.3	7.4	18.7	63.1	47.9	61.2
295.2	47.7	12.9	65.7	32.8	16.9	4.9	6.6	18.8	63.7	47.9	61.0
297.2	48.0	12.7	65.1	33.8	17.1	5.4	6.7	19.1	64.3	47.7	61.1
299.2	48.1	12.2	64.4	34.8	17.6	4.8	6.4	19.2	64.6	47.6	60.9
301.2	48.5	11.8	63.8	35.6	17.8	5.0	5.7	19.2	65.1	47.6	60.9
303.2	48.8	11.5	63.3	36.3	18.2	4.8	5.6	19.4	65.4	47.6	60.6
305.2	49.2	11.2	62.8	37.3	18.5	4.4	5.1	19.8	66.0	47.5	60.6
307.2	49.5	10.9	62.3	38.1	18.9	4.3	4.7	19.9	66.4	47.6	60.7
309.2	50.0	10.4	61.9	38.7	19.2	3.9	4.3	20.1	66.8	47.5	60.5
311.2	50.4	10.1	61.4	39.4	19.5	3.8	4.0	20.1	67.1	47.4	60.7
313.2	50.9	9.6	60.9	40.3	19.8	3.9	3.7	20.3	67.4	47.5	60.7
315.2	51.4	9.1	60.6	40.9	20.0	3.8	3.0	20.4	67.8	45.8	60.5
317.2	51.7	8.8	60.1	41.7	20.3	3.6	2.9	20.3	68.1	45.6	60.5

Table 2s. The %BII for each nucleotide step in the C9 methylated sample.

TempK	C1pG2	G2pC3	C3pG4	G4pA5	A5pA6	A6pT7	T7pT8	T8pC9	C9pG10	G10pC11	C11pG12
285.15	43.8	34.1	58.2	35.3	16.5	2.2	18.0	24.1	67.4	53.4	61.8
287.15	44.9	33.6	58.4	36.9	18.3	2.9	17.8	24.5	68.6	54.1	62.7
289.15	44.7	32.8	57.9	37.2	18.1	2.6	16.9	24.3	68.9	53.6	62.3
291.15	45.4	32.9	57.7	38.4	19.1	3.1	17.0	24.5	69.6	53.8	62.5
293.15	45.7	33.1	57.4	39.1	19.8	2.8	16.6	24.2	70.2	53.7	62.8
295.15	46.1	32.8	57.2	39.8	20.4	3.0	16.1	24.2	70.6	53.9	62.9
297.15	46.6	32.5	57.0	40.8	20.7	3.4	15.8	24.4	71.2	53.9	62.8
299.15	47.0	32.3	56.6	41.3	21.4	2.4	15.5	23.8	71.5	53.7	62.7
301.15	47.3	32.0	56.4	42.1	21.9	3.0	14.6	23.8	71.8	54.2	62.8
303.15	47.8	31.8	56.3	42.8	22.4	3.1	14.1	23.9	72.3	53.8	63.0
305.15	48.4	31.3	56.1	43.5	22.9	3.2	13.8	23.8	72.7	54.1	62.9
307.15	48.8	31.0	56.1	44.0	23.5	3.0	13.3	23.8	73.0	53.9	63.2
309.15	49.4	30.7	56.0	44.7	23.9	3.1	12.7	23.6	73.4	53.8	63.3
311.15	49.9	30.1	55.9	45.2	24.5	2.6	12.7	23.3	73.7	54.1	63.3
313.15	50.4	29.9	55.9	45.7	24.8	2.8	12.1	23.4	74.1	54.2	63.5
315.15	51.0	29.7	55.8	46.2	25.3	2.7	11.7	23.3	74.3	54.6	63.5
317.15	51.5	28.9	55.9	46.5	25.6	2.7	11.3	23.2	74.6	54.1	63.7

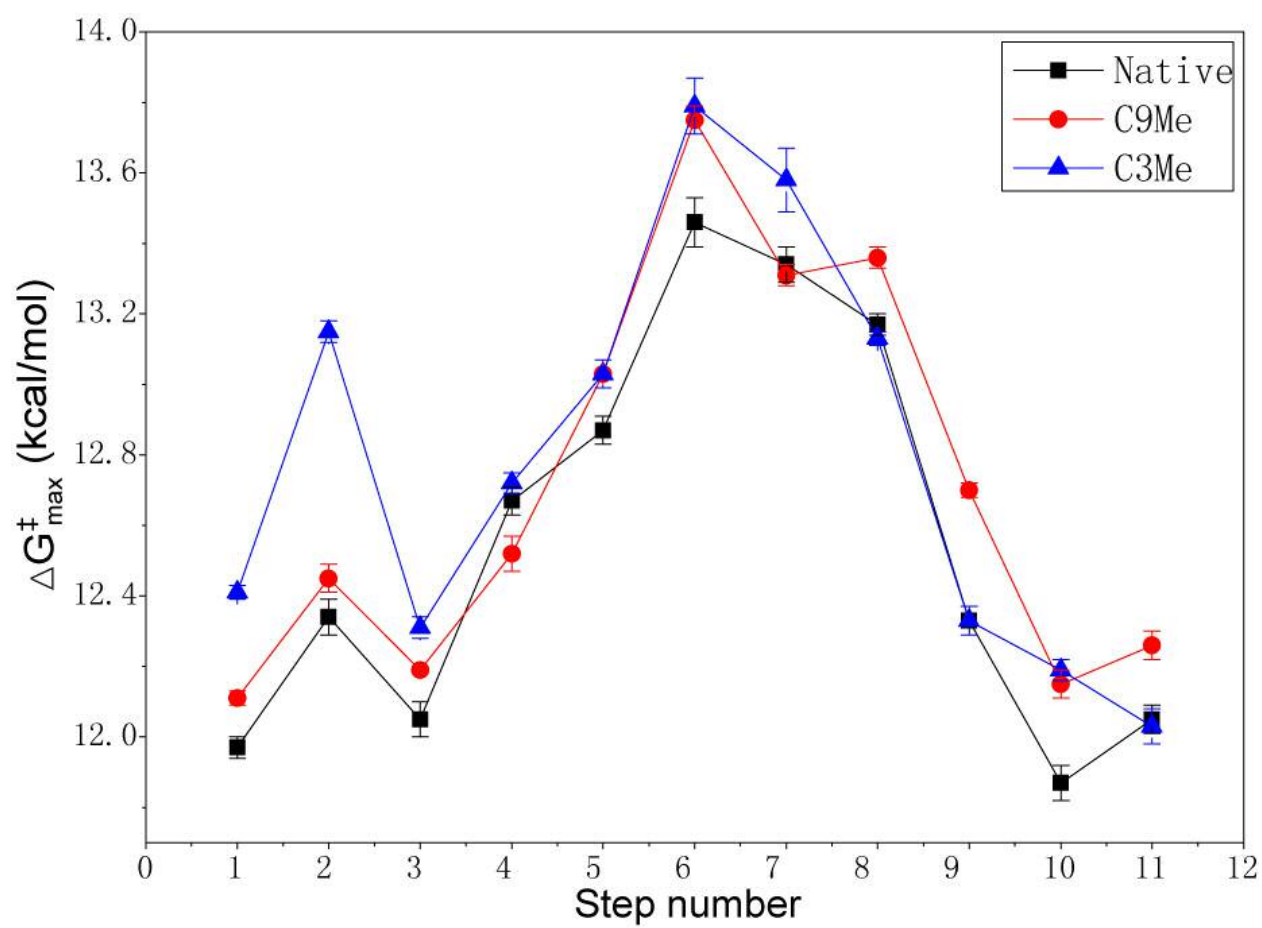


Figure 1s. Barrier as a function of step number with the chemical shift extrema extended by 0.1ppm.