

Electronic Supplementary Information for

Effect of surface charge of polyethyleneimine-modified multiwalled carbon nanotubes on the improvement of polymerase chain reaction

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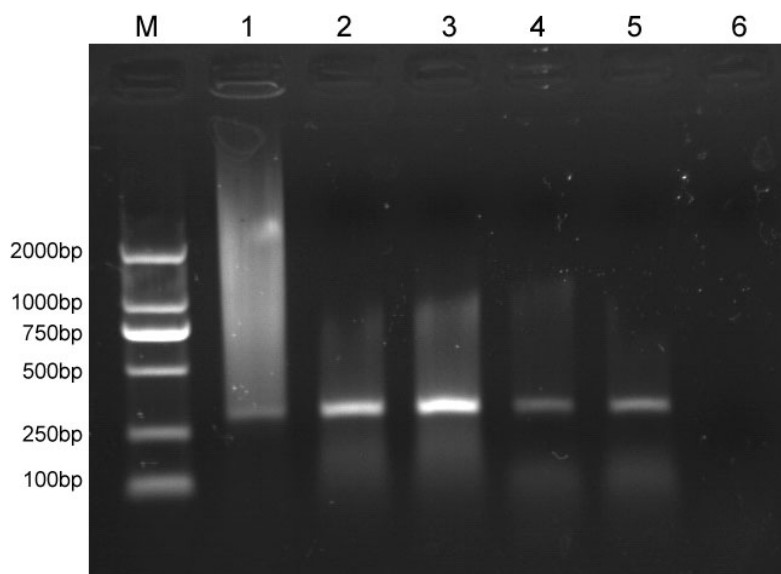


Figure S1. Electrophoregrams of PCR products using different MWCNT adding modes. Lane M: DL 2000 marker; Lane 1: two-round PCR; Lane 2: MWCNTs (12.4mg/L) was mixed with PCR mixture; Lane 3: MWCNTs (12.4mg/L) was first mixed with template, followed by adding into mixture of other PCR components; Lane 4: MWCNTs (12.4mg/L) was first mixed with primer, followed by adding into mixture of other PCR components; Lane 5: MWCNTs (12.4mg/L) was first mixed with DNA polymerase, followed by adding into mixture of other PCR components; Lane 6: negative control.

Table 1. Efficiency and specificity of PCR using different MWCNT adding modes, such as mixing MWCNTs (12.4mg/L) with mixture of all PCR components, and mixing MWCNTs/template, MWCNTs/primer, and MWCNTs/polymerase pre-mixture into mixture of other PCR components.

Adding modes	Efficiency	specificity
MWCNTs/PCR mixture	1.033	0.83
MWCNTs/template	1.116	0.81
MWCNTs/primer	0.908	0.88
MWCNTs/polymerase	0.941	0.86