Supporting Information

Silver nanowires-based fluorescence thermometer for single cell

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Table S1 Efficiency of energy transfer (η) between TR and AgNWs in TR-DNA-AgNWs according to $\eta = 1-\tau/\tau_0$

DNA sequences	η in open cycle state of DNA	η in closed cycle state of DNA
15T loop	56%	86%
30T loop	52%	78%
45T loop	39%	67%

Table S2 Comparison of different thermometers

Thermometer	Resolution (°C)	Sensitivity(/℃)	range(°C)	reference
Polymer plus CdSe-CdS	0.2	2.40%	20-40	S1
Gold nanocluster	0.1–0.3	0.50%	15-45	S2
Rare earth doped molecular structure	NA	4.90%	10–350 K	S3
CdSe/ZnS QD	NA	0.70%	10-80	S4
Polymeric NP	1	2%	26-40	S5
DNA molecular beacon	0.7	NA	20-50	S6
Nano-sized MOF	0.48	4.97%	10-60	S7
High molecular polymer	less than 1	NA	28-42	S8
Upconversion nanoparticle	0.1	1.54%	300-673	S9
High molecular polymer	NA	2.78%	20-70	S10
Carbon-Dot	NA	1.80%	25-45	S11
DNA nanomachine	0.1-0.5	5.20%	30-50	S12
TR-DNA-AgNWs	0.5	2.60%	20-50	This work

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