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Article

Thermal and Medium Stability Study of Polyvidone-Modified Graphene Oxide-Coated Gold Nanorods with High Photothermal Efficiency

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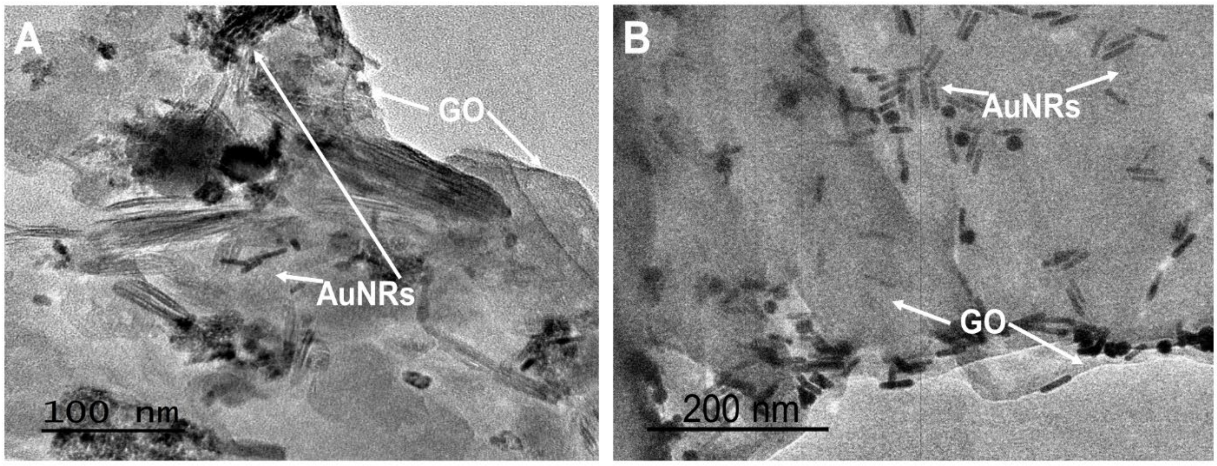

Figure S1. TEM images of GO@AuNRs and mGO@AuNRs

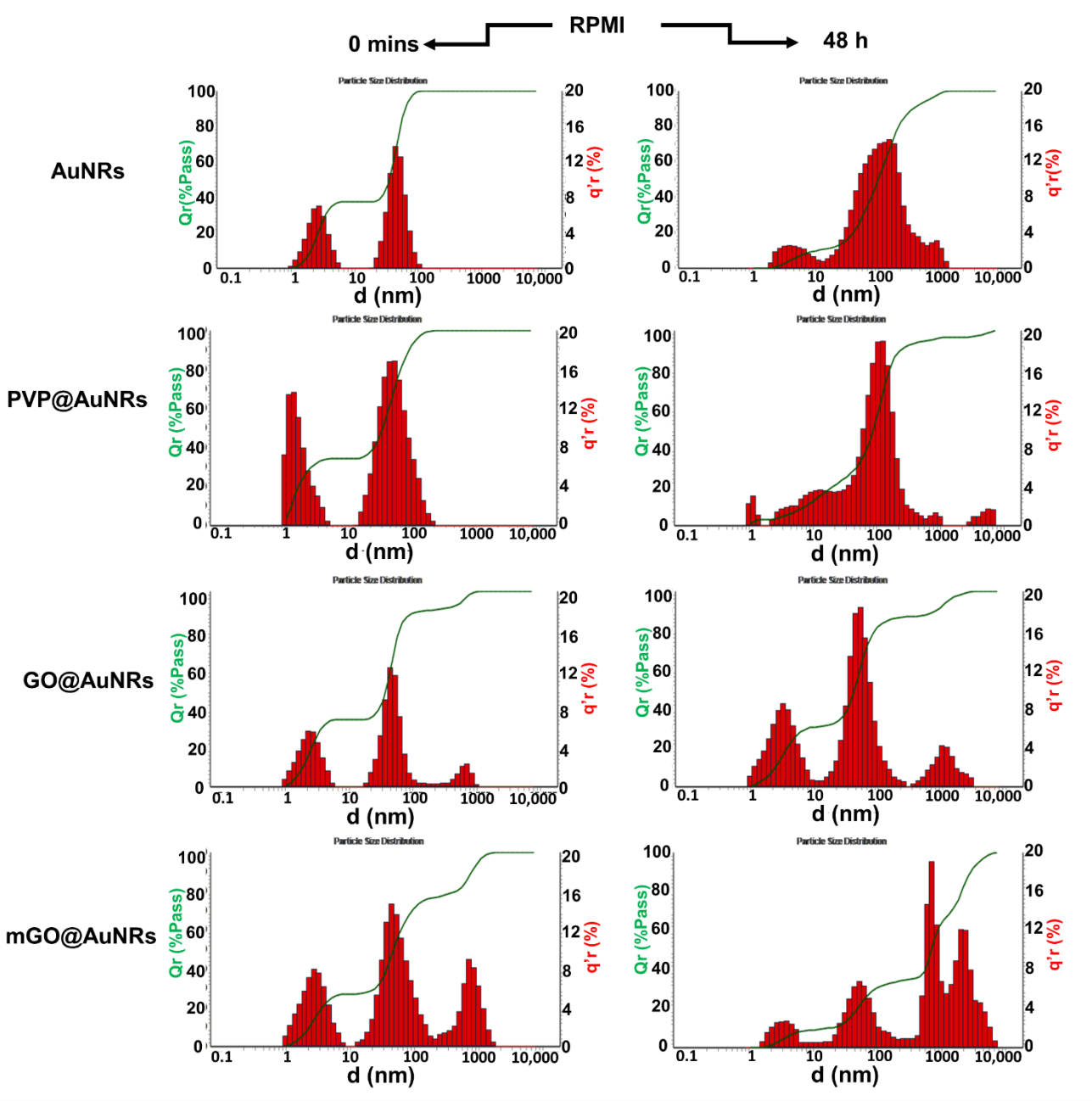

Figure S2. DLS of AuNRs, PVP @AuNRs, GO@AuNRs and mGO@AuNRs, in PBS at 0 min and 48 h.

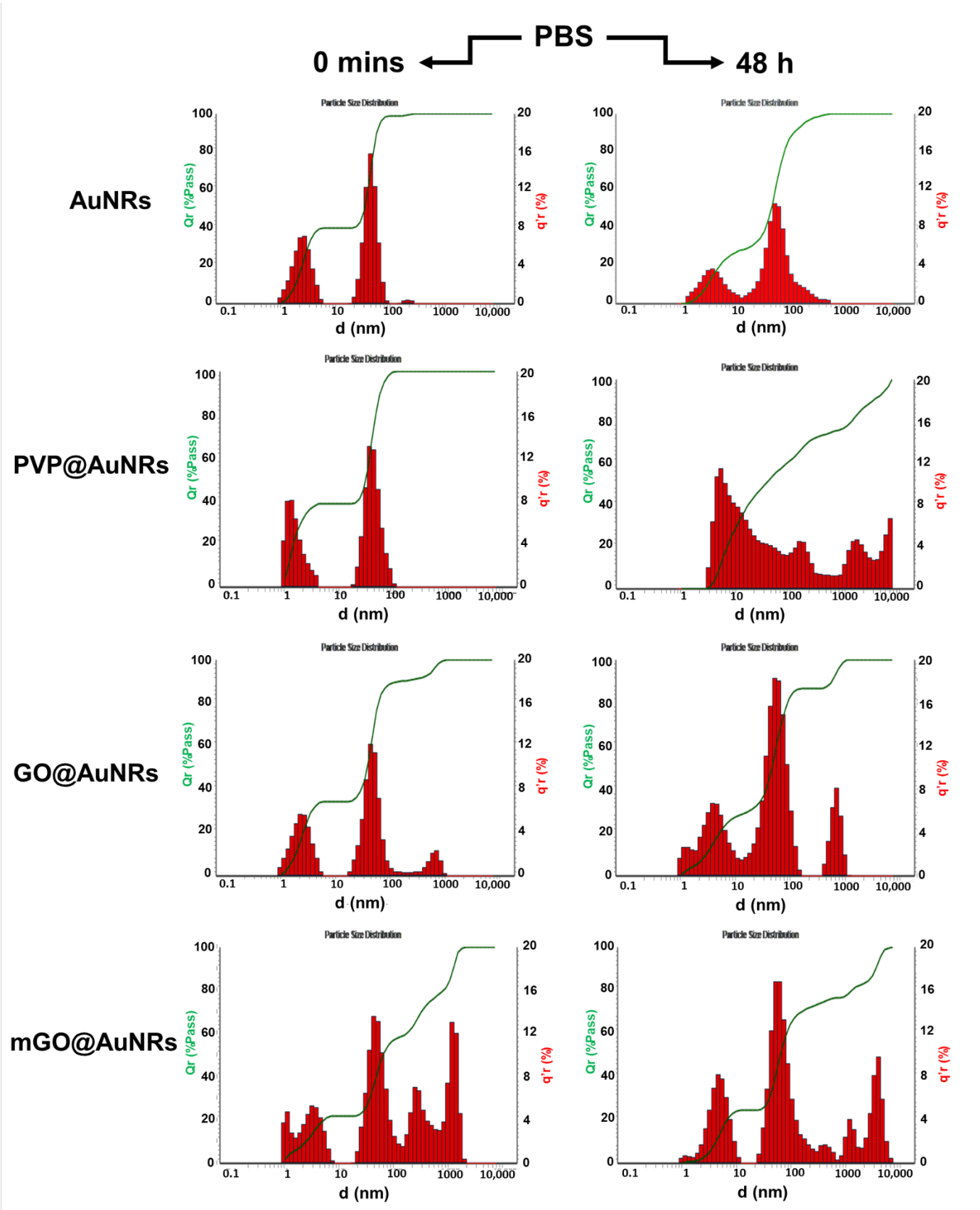

Figure S3. DLS of AuNRs, PVP @AuNRs, GO@AuNRs and mGO@AuNRs, in PBS at 0 min and 48 h.

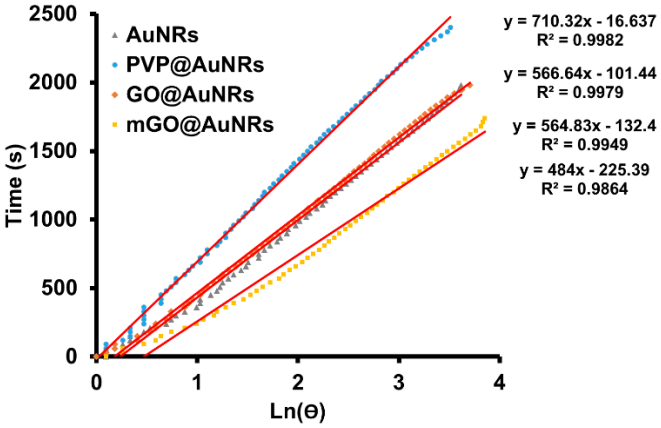

Figure S4. The time constant for heat transfer of AuNRs, PVP @AuNRs, GO@AuNRs, and mGO@AuNRs by applying the natural logarithm of temperature change versus time data acquired from the cooling.

Table S.1. Power density and phothermal conversion efficiency (%) of different nanocomposites irradiated with 808 nm laser.

Nanocomposites	Laser wavelength (nm) and power density	Photothermal conversion efficiency (%)	Ref
Apt@GO@Au-His@a-ZnO	1.5 W.cm^{-2}	38.0	[1]
mPEG-PEI-AuNRs	0.8 W cm^{-2}	27.7	[2]
$MoTe_2$ nanosheets	0.6 W cm^{-2}	33.8	[3]
AuNRs/GO@PDA hybrid nanosheets	2 W cm^{-2}	36.1	[4]
PEG-AuNRs	1.5 W cm^{-2}	52	[5]
This work	1.27 W.cm^{-2}		-
PVP@AuNRs		21.5 %	
GO@AuNRs		37.8 %	
mGO@AuNRs		54.8%	

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