

Supporting Information

Compounds	Contact angle	
	Before deprotection	After deprotection
1a	73°	65°
1b	74°	66°
1c	72°	56°
1d	73°	52°
1e	74°	66°

Table S1. The wettability of monolayers 1a-e, before deprotection and after 4 h treatment of TFA.

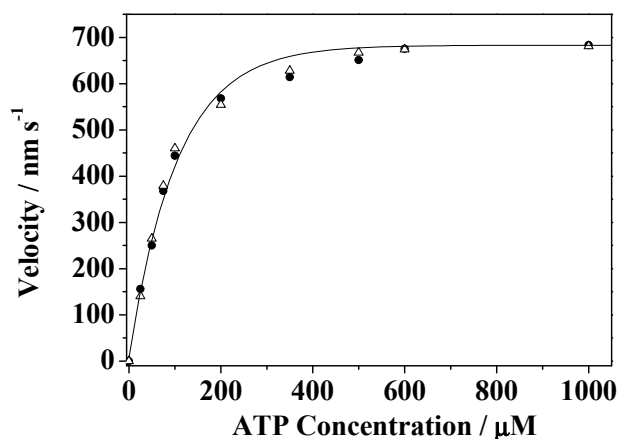


Figure S2: Represents the effect of with (black circle) and without (triangle) UV light irradiation on motility of MTs in the presence of ATP by control experiment.

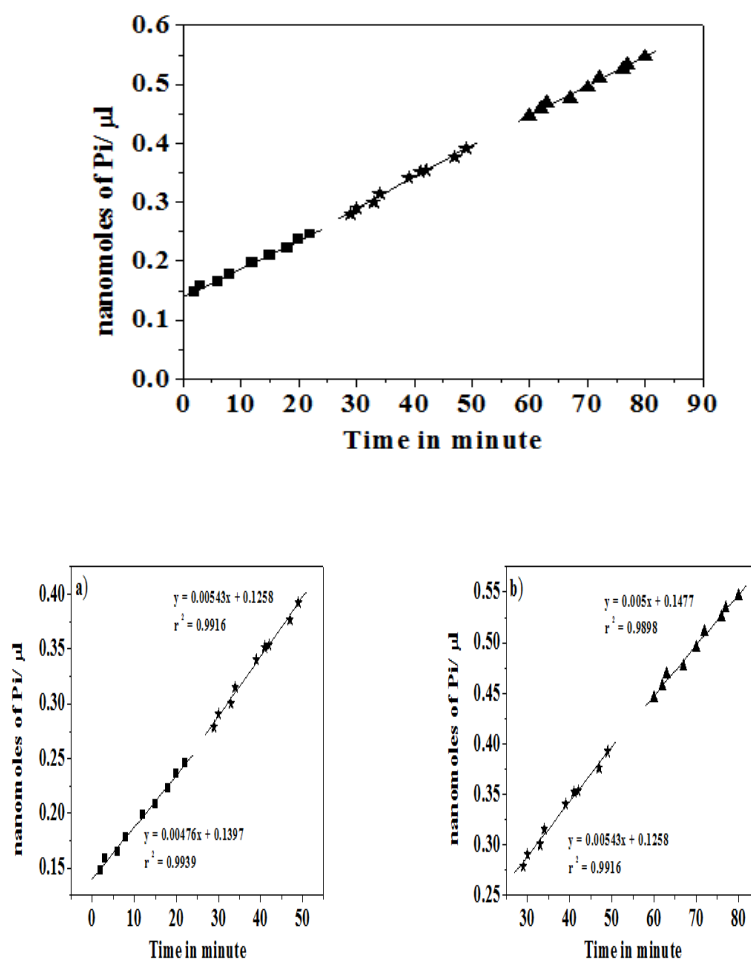


Figure S3: Time dependent inorganic phosphate releases from hydrolysis of ATP by kinesin at different environments of azobenzene functionalized surface of **1b** (top); before irradiation (squares), after 366 nm irradiation (stars) and after visible light irradiation (triangles). Bottom: Enlarged figure of phosphate release (a) before and after 366 nm irradiation and (b) after 366 nm and >500 nm irradiation.

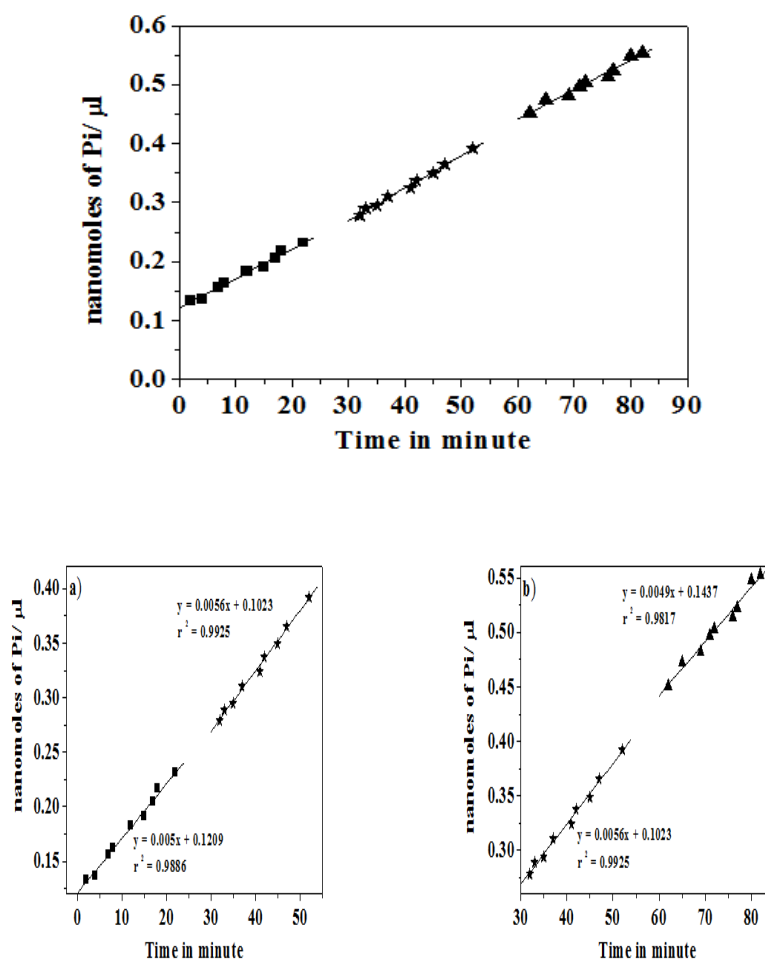


Figure S4: Time dependent inorganic phosphate releases from hydrolysis of ATP by kinesin at different environments of azobenzene functionalized surface of **1c** (top); before irradiation (squares), after 366 nm irradiation (stars) and after visible light irradiation (triangles). Bottom: Enlarged figure of phosphate release (a) before and after 366 nm irradiation and (b) after 366 nm and >500 nm irradiation.

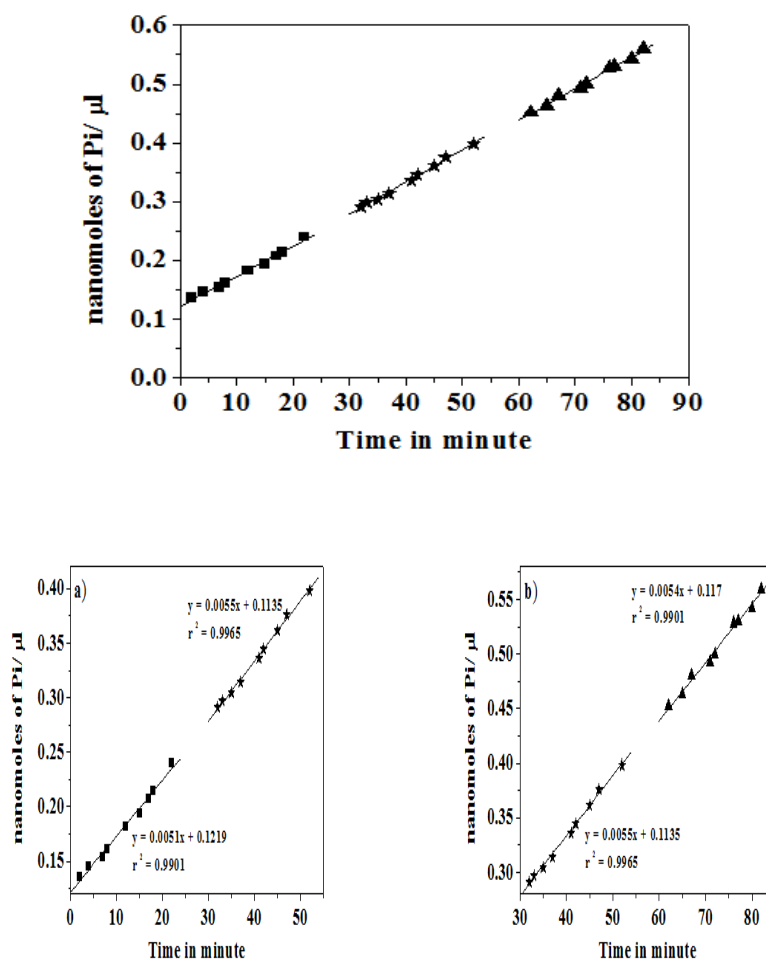


Figure S5: Time dependent inorganic phosphate releases from hydrolysis of ATP by kinesin at different environments of azobenzene functionalized surface of **1d** (top); before irradiation (squares), after 366 nm irradiation (stars) and after visible light irradiation (triangles). Bottom: Enlarged figure of phosphate release (a) before and after 366 nm irradiation and (b) after 366 nm and >500 nm irradiation.

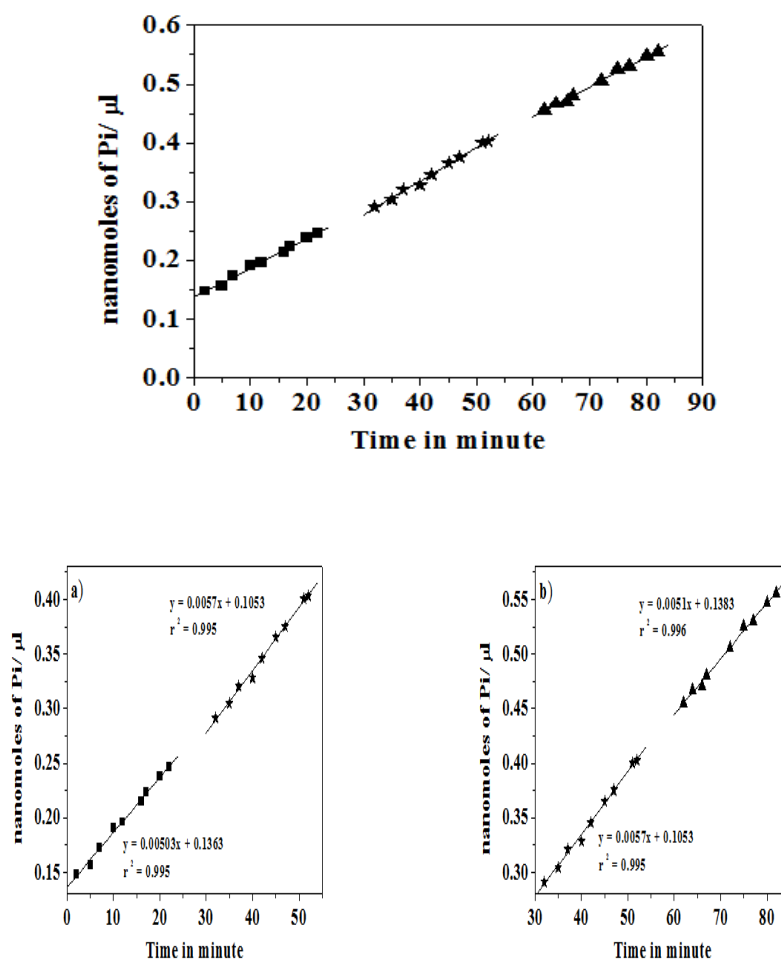


Figure S6: Time dependent inorganic phosphate releases from hydrolysis of ATP by kinesin at different environments of azobenzene functionalized surface of **1e** (top); before irradiation (squares), after 366 nm irradiation (stars) and after visible light irradiation (triangles). Bottom: Enlarged figure of phosphate release (a) before and after 366 nm irradiation and (b) after 366 nm and 440 nm irradiation.