

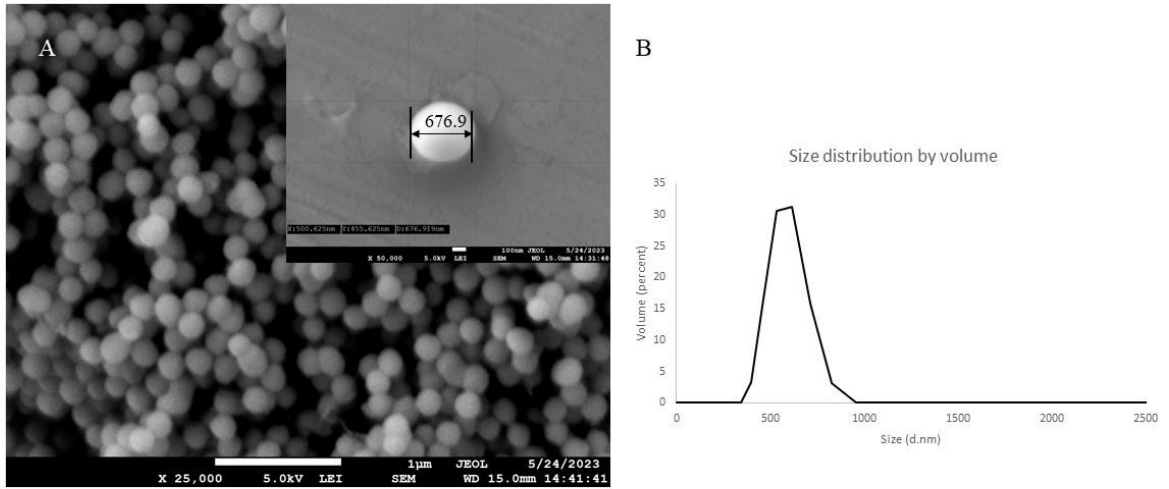
## *Supplementary Material*

<b>PMO</b>	<b>Particle size* (by volume)/nm</b>	<b>Polydispersity index (PDI)</b>
PMO-OH ( <b>SS4</b> )	495±131.9	0.12±0.39
AVPI@PMO ( <b>SS36</b> )	650±395	0.51±0.19
c[RGDfK]@PMO ( <b>SS28</b> )	900±395	0.45±0.19
DTP@PMO ( <b>SS35</b> )	725±395	0.82±0.19

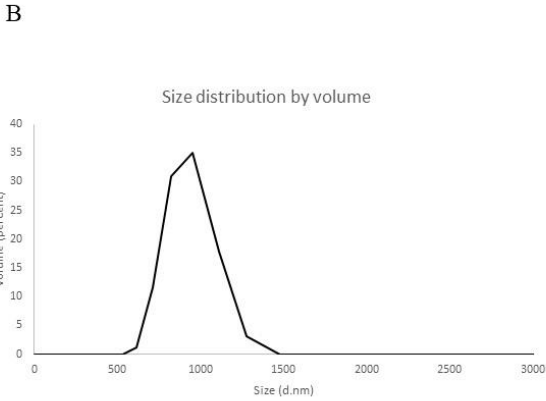
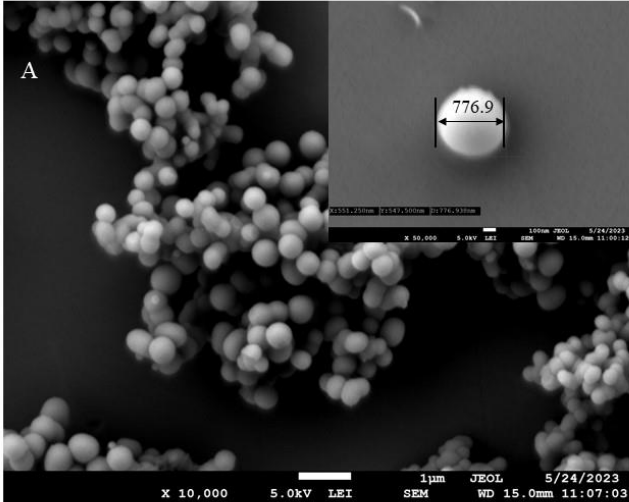
\*Data expressed as mean ±standard deviation ( $n = 3$ ).

**Supplementary Table S1** Summary of hydrodynamic size distribution by volume (20°C) of samples used in this work.

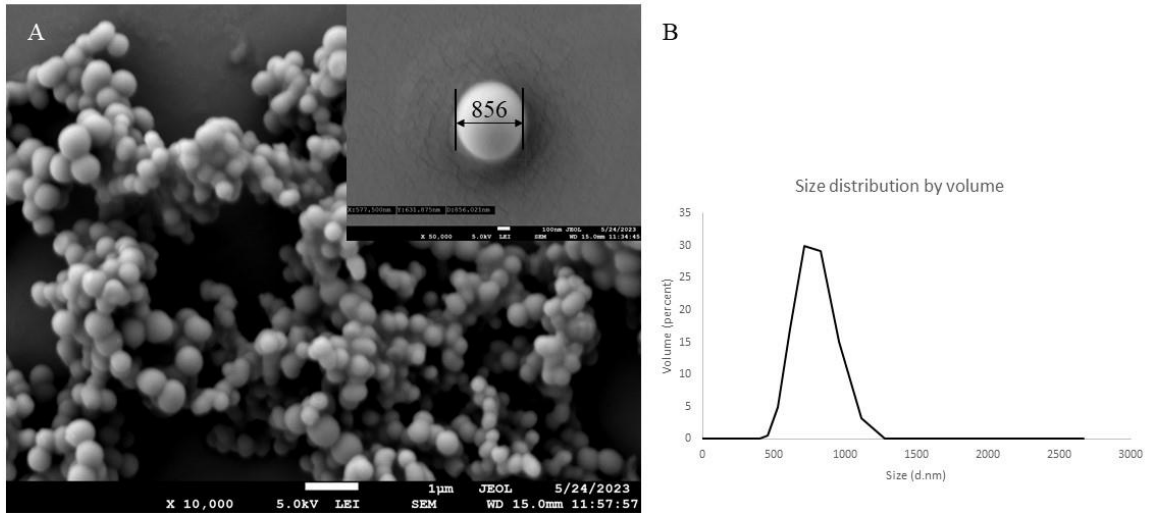
**Supplementary Figure S1** SEM images of the AVPI@PMO (SS36) at 25k of magnification and inset at 50k of magnification (A) and hydrodynamic distribution by volume determined by DLS (water, 20°C) (B).



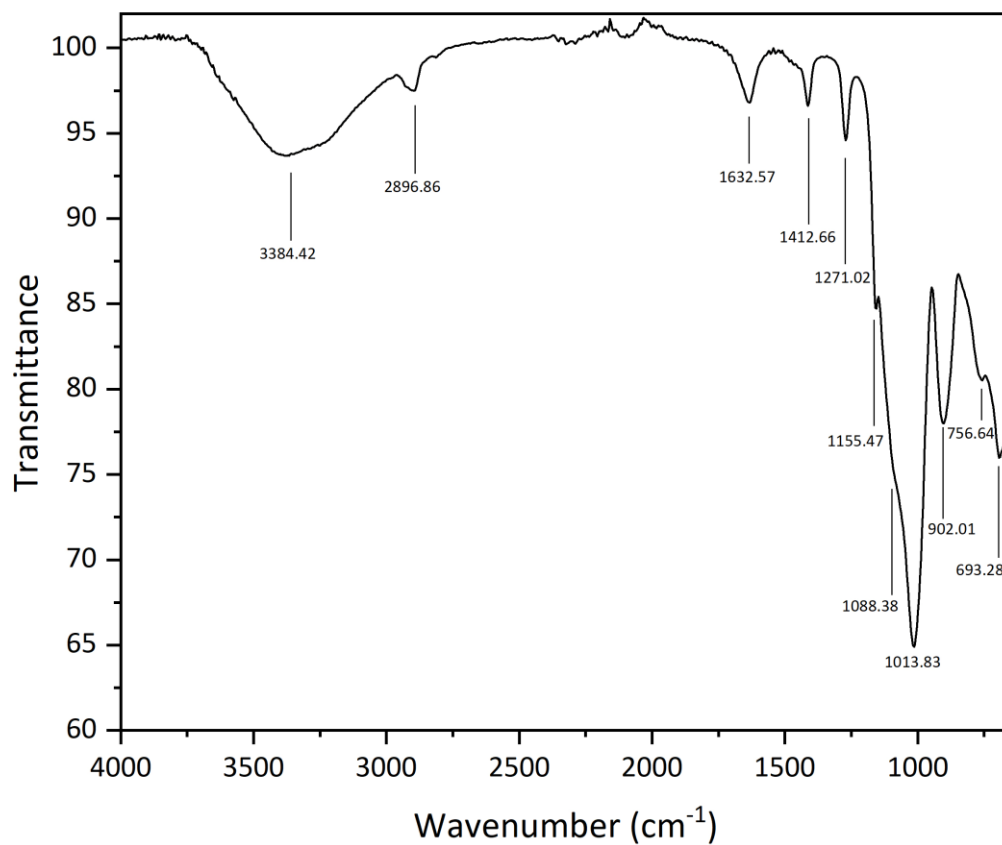
**Supplementary Figure S2** SEM images of the c[RGDfK]@PMO (SS28) at 10k of magnification and inset at 50k of magnification (A) and hydrodynamic distribution by volume determined by DLS (water, 20°C) (B)



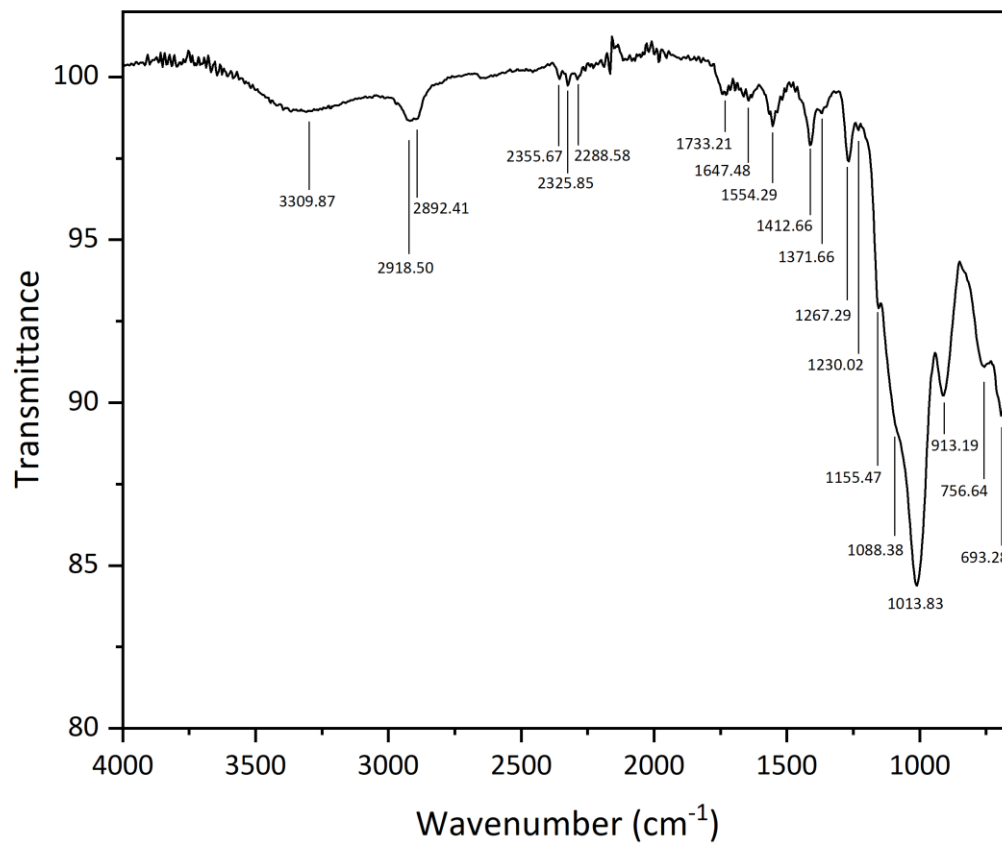
**Supplementary Figure S3** SEM images of the AVPI-c[RGDfK]@PMO (DTP@PMO) (SS35) at 10k of magnification and inset at 50k of magnification (A) and hydrodynamic distribution by volume determined by DLS (water, 20°C) (B)



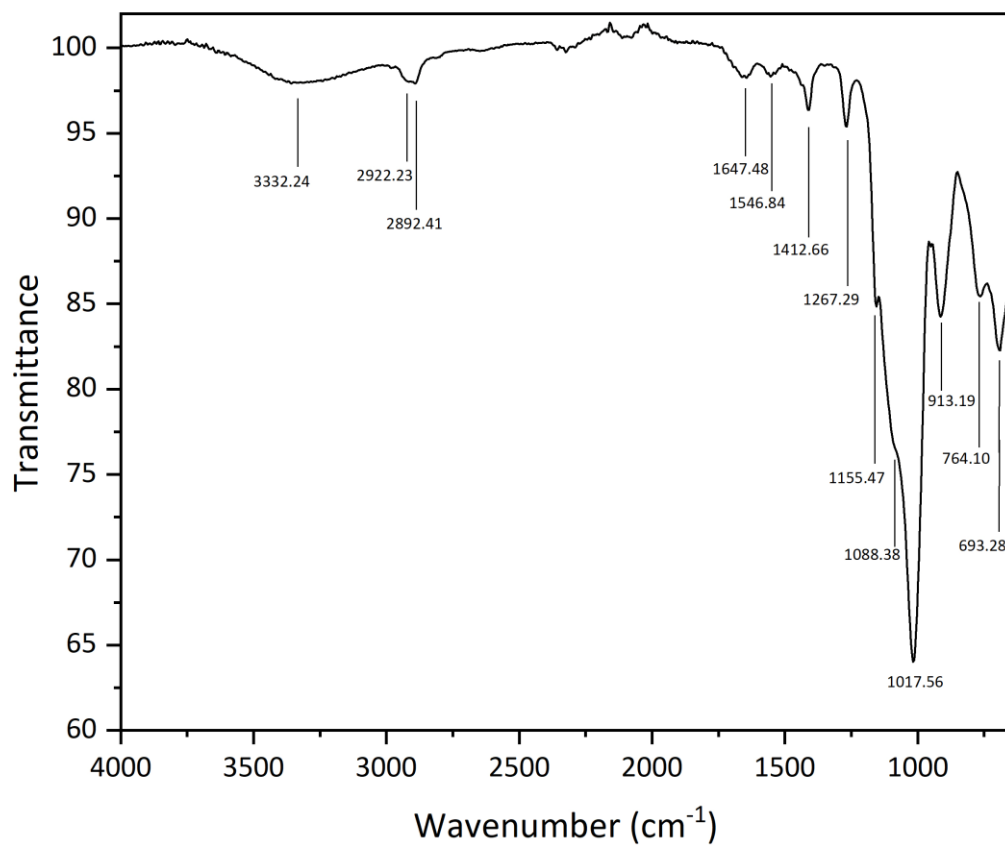
**Supplementary Figure S4** IR-spectrum of PMO-OH (SS4) were measured within the wavenumber range of 4000 to 650  $\text{cm}^{-1}$ .



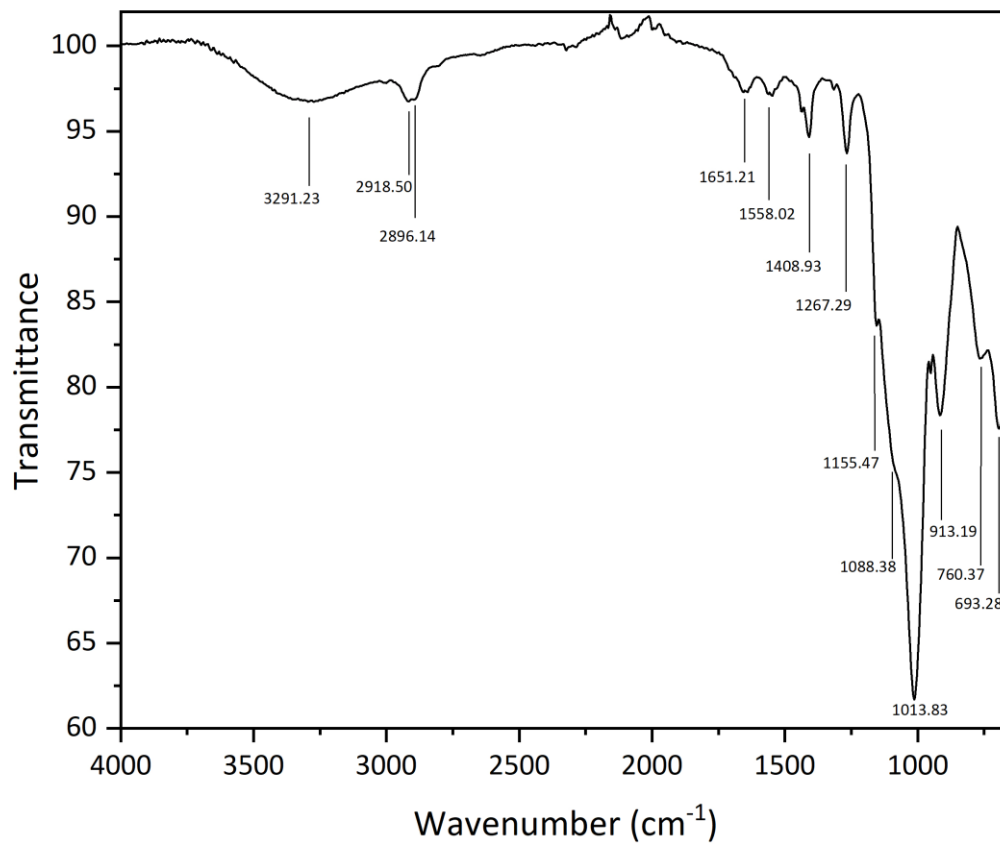
**Supplementary Figure S5** IR-spectrum of ICPTES@PMO (SS14) were measured within the wavenumber range of 4000 to 650  $\text{cm}^{-1}$ .



**Supplementary Figure S6** IR-spectrum of c[RGDfK]@PMO (SS28) were measured within the wavenumber range of 4000 to 650  $\text{cm}^{-1}$ .

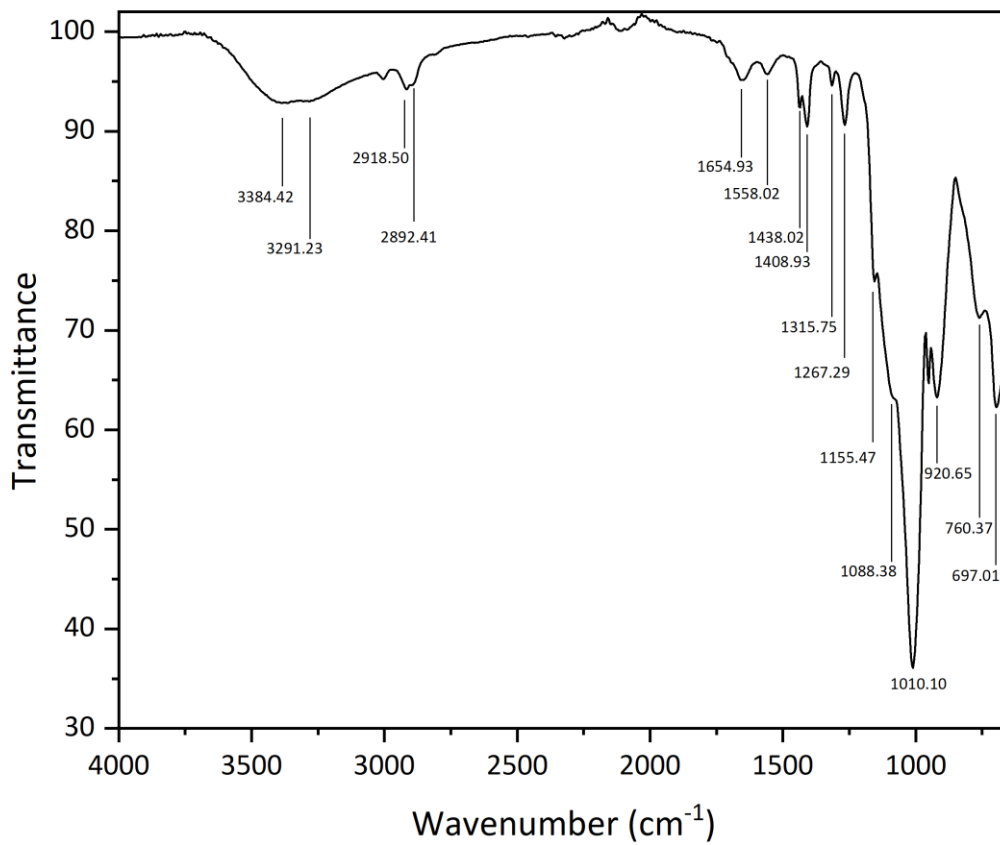


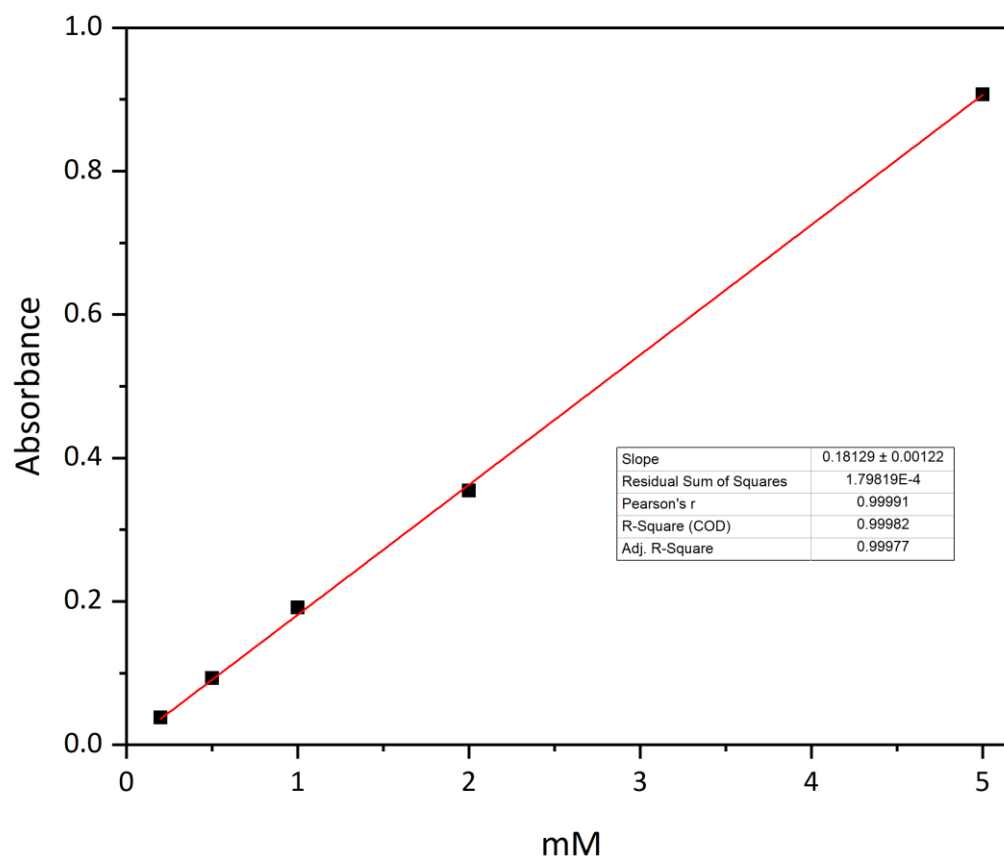
**Supplementary Figure S7** IR-spectrum of AVPI-c[RGDfK]@PMO (DTP@PMO) (**SS35**) were measured within the wavenumber range of 4000 to 650  $\text{cm}^{-1}$ .





**Supplementary Figure S8** IR-spectrum of AVPI@PMO (SS36) were measured within the wavenumber range of 4000 to 650  $\text{cm}^{-1}$ .



**Supplementary Figure S9** Calibration curve of Phenylalanine ( $\lambda_{\text{ex}}$  240nm,  $\lambda_{\text{em}}$  282nm)

**Supplementary Figure S10** Calibration curve of Fmoc-Alanine ( $\lambda_{\text{ex}}$  397nm,  $\lambda_{\text{em}}$  280nm)

