

Carbon dots incorporated mesoporous silica nanoparticles for targeted cancer therapy and fluorescence imaging

Abolghasem Abbasi Kajani^{1,*}, Laleh Rafiee², Shaghayegh Haghjooy Javanmard², Nasim Dana²,
Setareh Jandaghian²

¹ Department of Biotechnology, Faculty of Biological Science and Technology, University of Isfahan, Isfahan, 81746-73441, Iran

² Applied Physiology Research Center, Cardiovascular Research Institute, Isfahan University of Medical Sciences, Isfahan, 81746-73461, Iran.

* Corresponding authors:
agh.abbasi@bio.ui.ac.ir

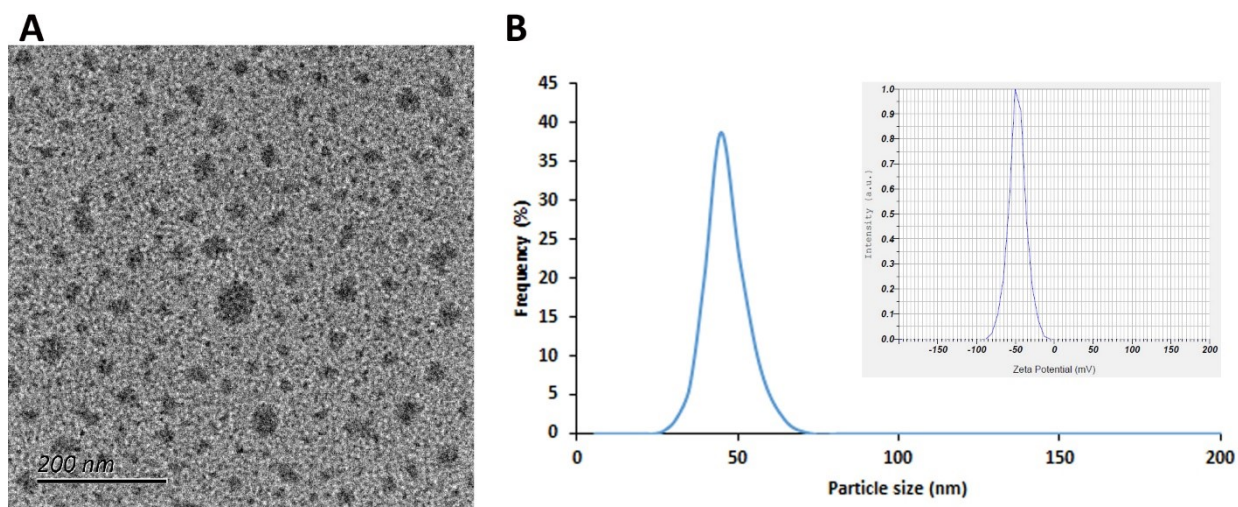


Fig. S1 The characterization of CDs. The results of HRTEM (A), DLS (B), and ζ potential (inset) analysis of CDs.

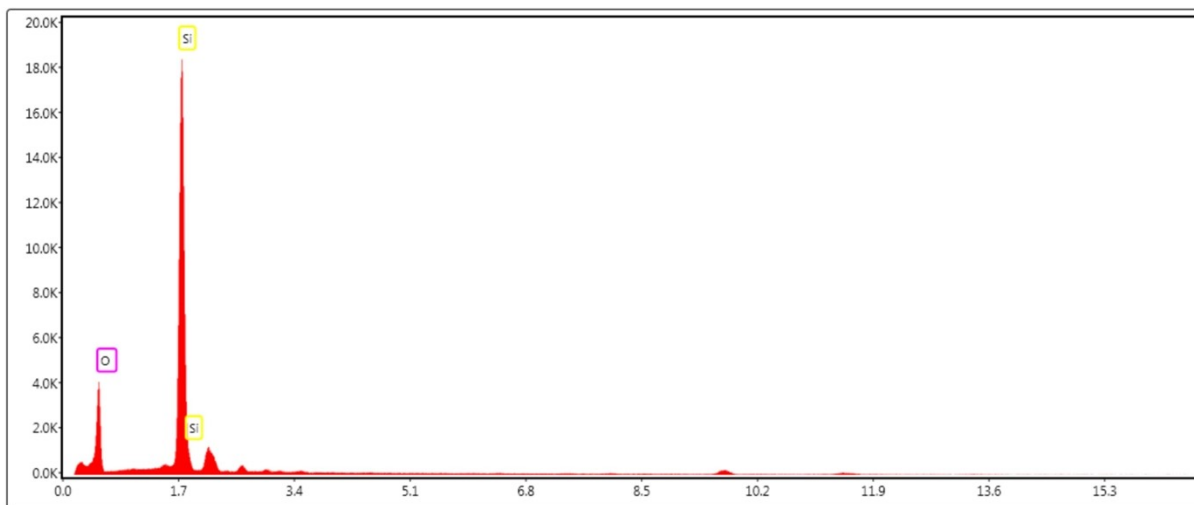


Fig. S2 The EDS analysis of MSNs.

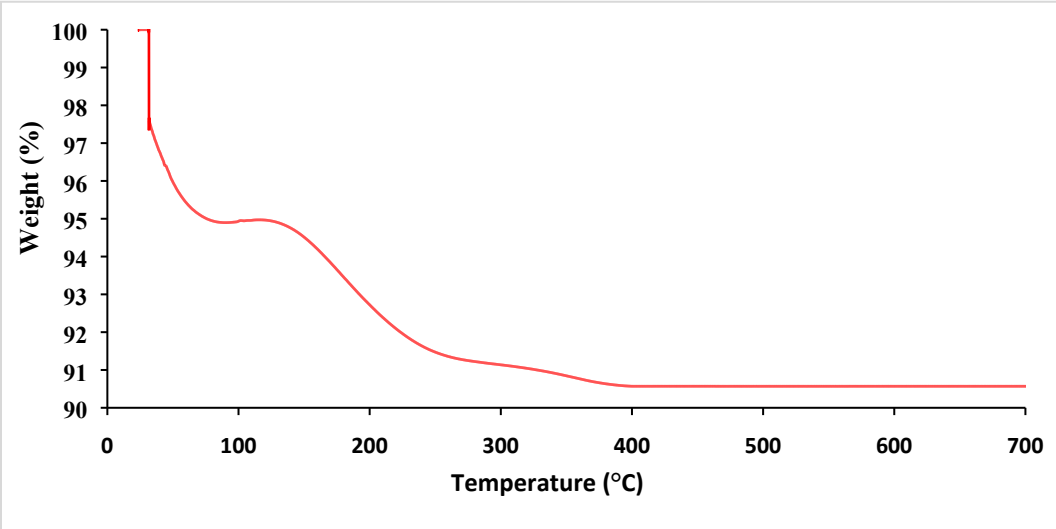
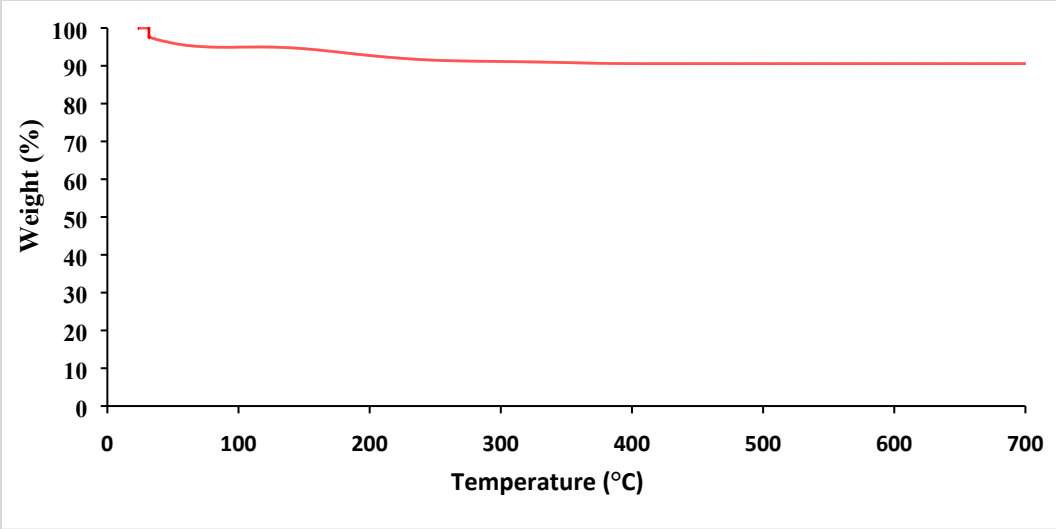


Fig. S3 TGA curve of MSNs-CDs.

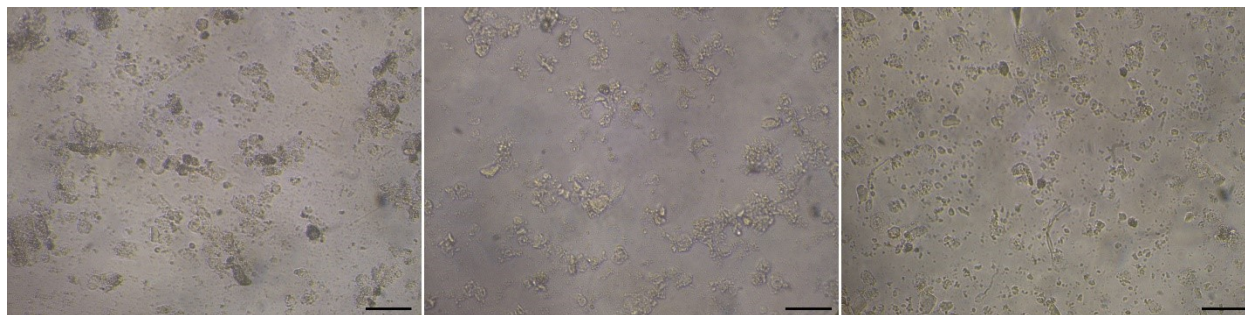


Fig. S4 Changes in morphology MCF-7, MDA-MB and HUVEC cells after 48 h exposure with $100 \mu\text{g. mL}^{-1}$ MSNs-CDs (Scale bars = $50 \mu\text{m}$).

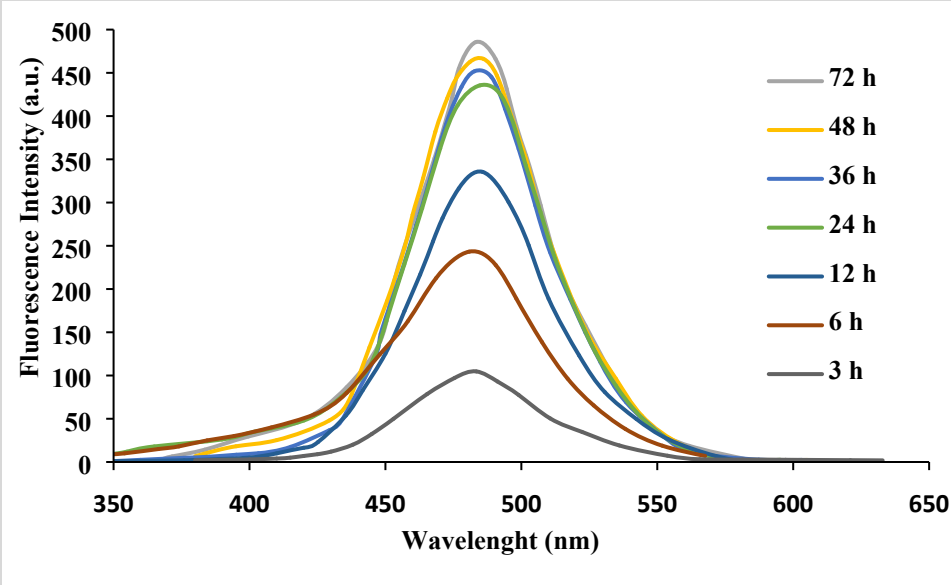


Fig. S5 Fluorescence spectra of the supernatant obtained after incubation of MSNs-CDs in PBS buffer (pH 5.0) for 3, 6, 12, 24, 36, 48, and 72 h.