



Fig. 21. CMC-NP hydrogel between two opposing permanent magnets at the beginning of the test (to the left) and after some hours (to the right).

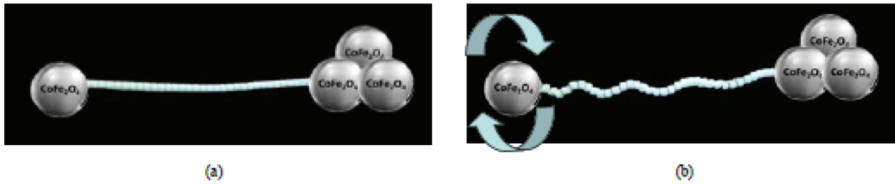


Fig. 22. Schematic drawing of a polymer chain with crosslinked nanoparticles (a) without application of AMF and (b) with application of AMF (Uva et al. 2014).

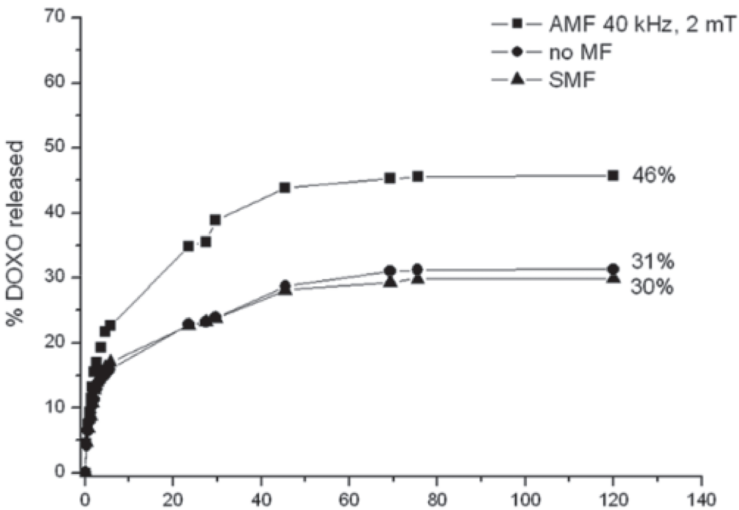


Fig. 23. Release trends of DOXO from CMC-(Fe₃O₄)NPs in NaCl 0.15 M (circles) in the presence of AMF (squares) and with SMF (triangles) (Uva et al. 2015).

Obstacle to Clinical Applications

Although magnetic hydrogels can control pulsatile release of drugs remotely via an external MF, it is currently difficult to delivery drugs to regions within deep tissues as the targeting efficiency depends on the distance between the tumor and the magnets.