

Supporting informations

Table S1. Materials, techniques and applications used in the preparation of hydrogels.				
SN	Material	Technique (s)	Application (s)	Reference (s)
1.	Gum arabic	Photo-induced radical polymerization	Self-healing hydrogel	45
2.	Polyethylene glycol (PEG)	Chemical crosslinking	Drug delivery	46
		Photo-polymerization	Implants	47
		Free-radical polymerization	Scaffolds	48
		Gamma-radiation	Scaffolds	49
3.	Hydroxyethyl cellulose (HEC)	Chemical crosslinking	Wound dressing	50
		Free-radical polymerization	Self-healing	51
		Grafting	Bacteriostasis	52
4.	Carboxymethyl cellulose (CMC)	Freeze-thaw	Enzyme immobilization	53
		Chemical crosslinking	Drug carrier agent	54
		Chemical crosslinking	Hydrogel beads	55
		Copolymerization	Dye removal	56
		Chemical crosslinking	Anti-counterfeiting and labelling	57
		Gamma radiation	Hemostat hydrogel	58
		Chemical crosslinking	Photoluminescent	59
		Grafting	Metal ions removal	60
5.	Hydroxypropyl methylcellulose (HPMC)	Radiation	Scaffolds	61
		Chemical crosslinking	Controlled release	62
		Chemical crosslinking	Drug delivery	63

		Chemical crosslinking	Thermoresponsive hydrogel	64
6.	Hydroxypropyl cellulose (HPC)	Chemical crosslinking	Thermoresponsive hydrogel	65
		Photocrosslinking	Biomedical	66
		Pre-polymerization	Anti-fouling	67
		Freeze-thaw	Biomedical	68
7.	Starch	Radical polymerization	Wound dressing	69,70
		Freeze-thaw	Biomedical	71
8.	Polyvinyl alcohol (PVA)	Freeze-thaw	Biomedical	72
		Freeze-thaw	Drug release	73
		Freeze-thaw	Radome materials	74
		Freeze-thaw	Regenerative medicines	75
9.	Sterculia gum	Radiation-induced	Biomedical	75
10.	Polyacryl amide	Radiation-induced	Agriculture	76
11.	Chitosan	Photo-polymerization	Biomedical	77
		Photo-polymerization	Tissue adhesive	78