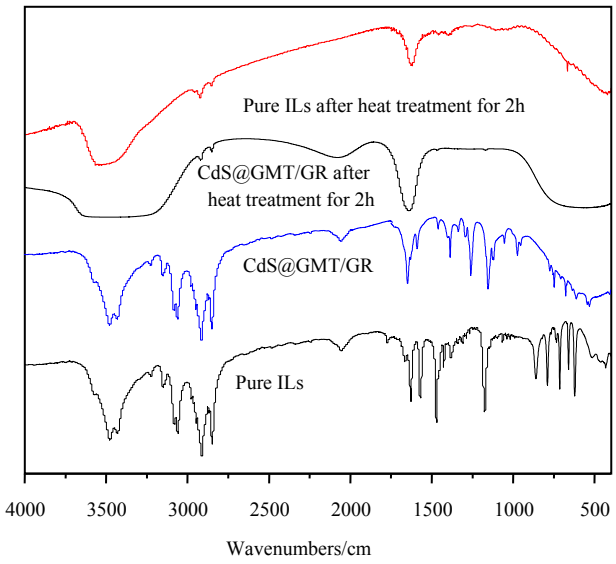
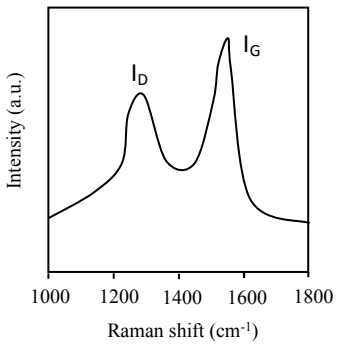
Supporting information 1

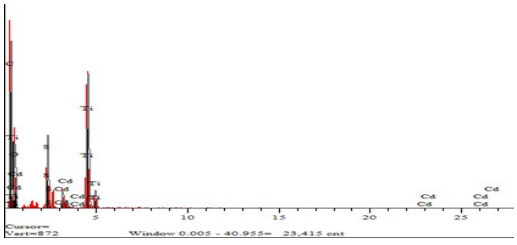


A broad band located at 3326–3442 cm^{-1} is assigned to O–H stretching frequencies of water. C-C band wave number was located at 1555-1700 cm^{-1}. The presence of imidazolium groups in the sample is supported by the appearance of bands in the 2700–3150 cm^{-1} region. The ν(C–H) out of plane deformations, characteristic of imidazolium ring of ILs is around 670–750 cm^{-1}. The absorption peaks at 1042, 1008, 1113 cm^{-1} are attributed to the vibration of different types of surface hydroxyl groups. Overlapping of C–N stretching vibration occurs at 1404 cm^{-1} in the spectrum of QDs.

Supporting information 2

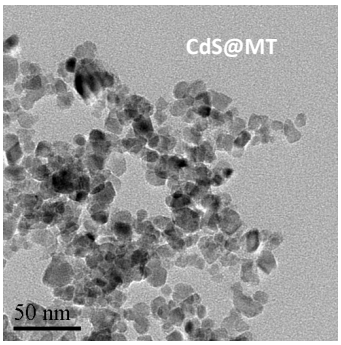


Supporting information 3

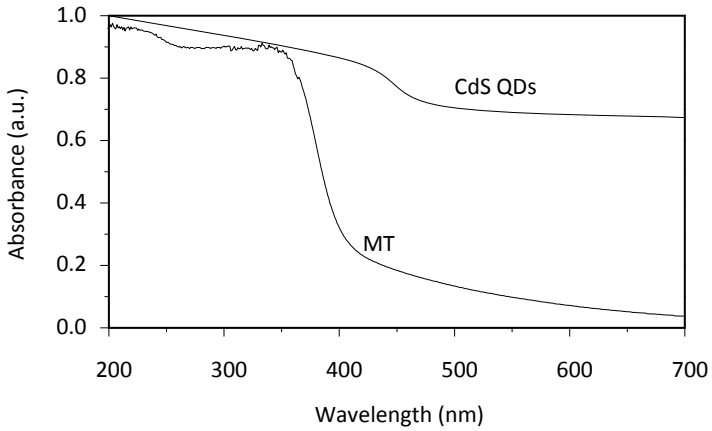


Elt.	Intensity (c/s)	Conc	Units	Error 2-sig	MDL 3-sig
C	194.10	44.014	wt.%	1.309	0.945
O	67.66	38.191	wt.%	1.883	1.254
S	83.98	3.344	wt.%	0.155	0.122
Ti	185.85	11.216	wt.%	0.313	0.135
Cd	23.67	3.235	wt.%	0.350	0.385
Total		100.000	wt.%		

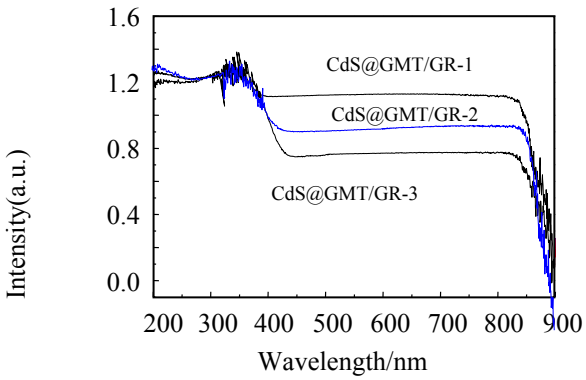
Supporting information 4



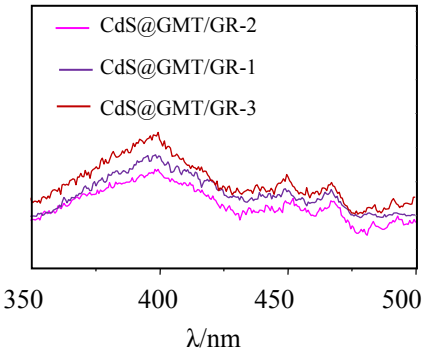
Supporting information 5



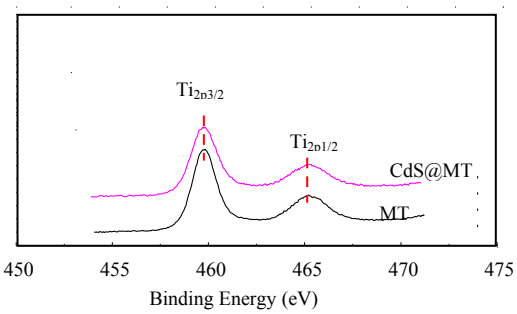
Supporting information 6



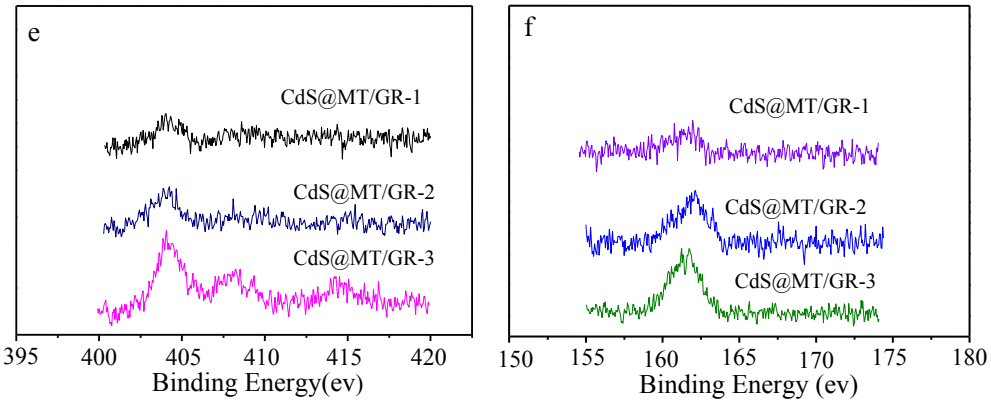
Supporting information 7



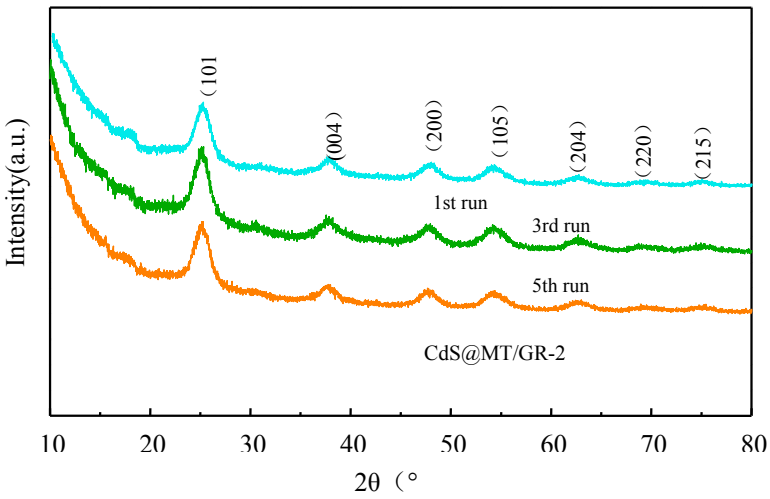
Supporting information 8



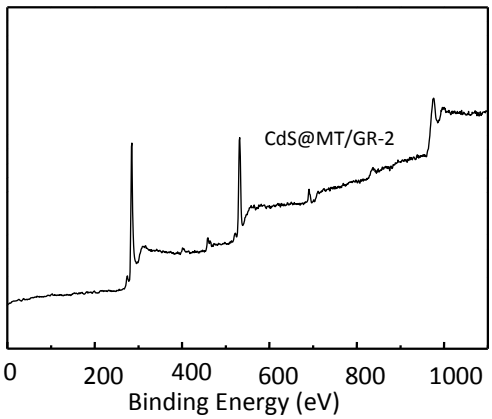
Supporting information 9



Supporting information 10



Supporting information 11



Supporting information 12