

MOF Functionalized with CdTe Quantum Dots as an Efficient White Light Emitting Phosphor Material for Applications in Displays

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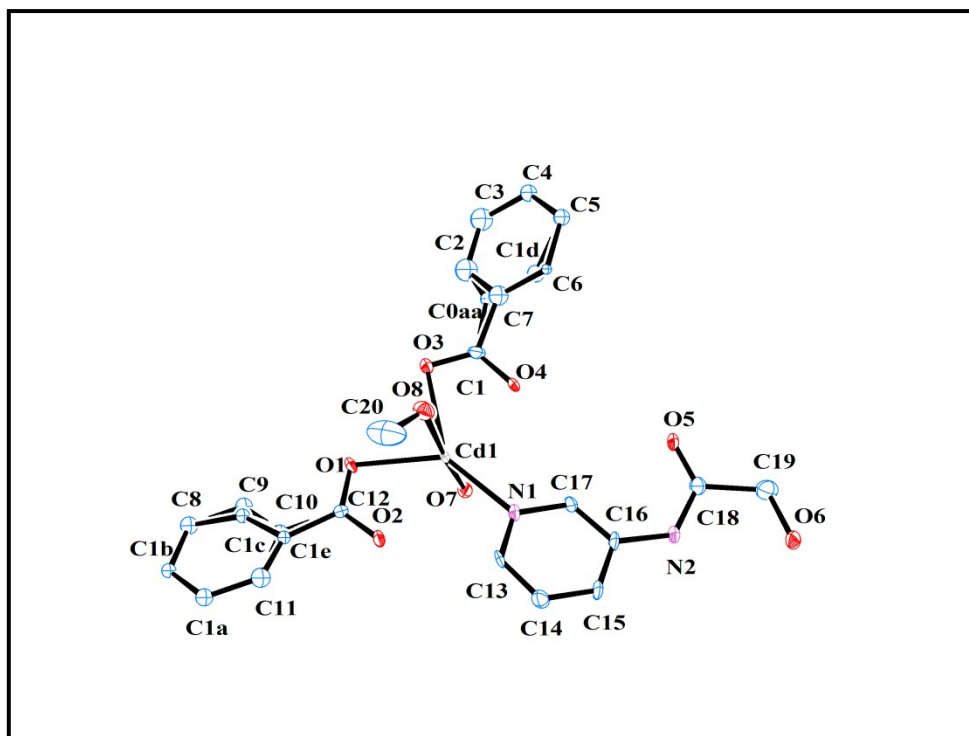
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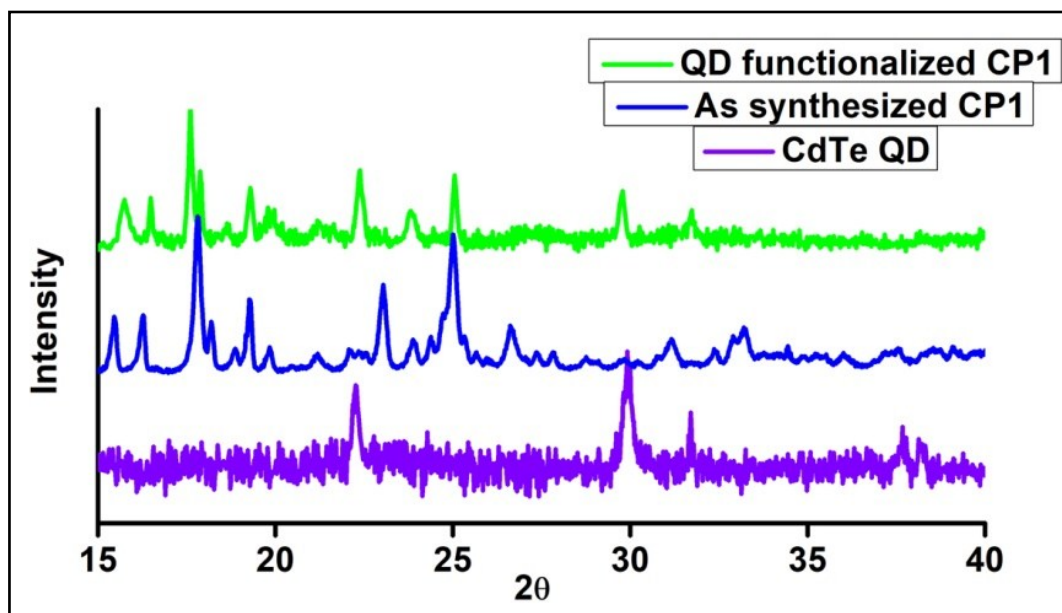
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Table 1:

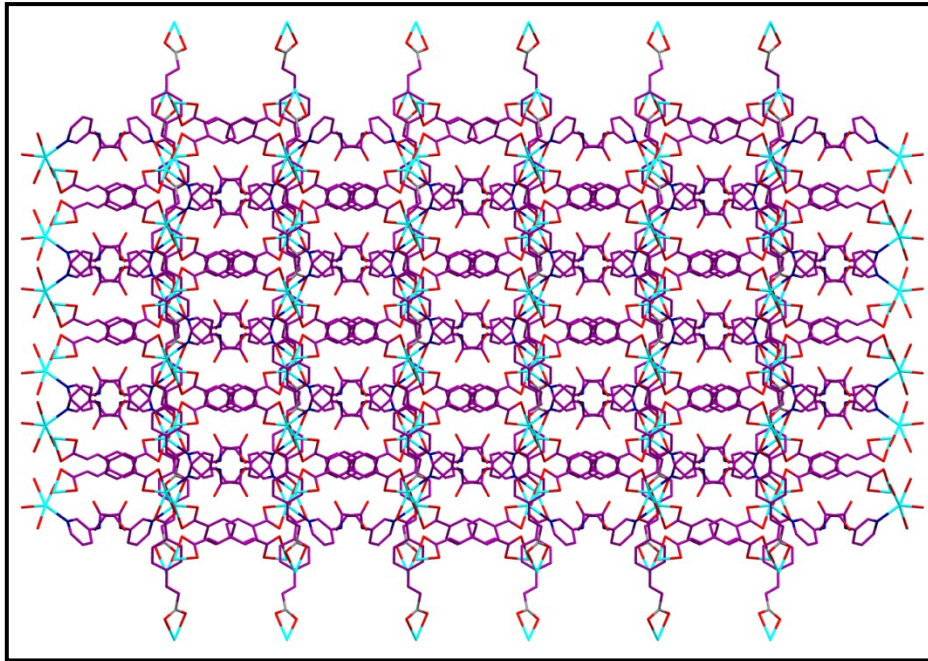
Empirical formula	C ₁₈ H ₉ CdN ₂ O ₈
Formula weight	493.67
Temperature/K	100
Crystal system	monoclinic
Space group	C2/c
a/Å	21.989(2)
b/Å	11.1499(9)
c/Å	19.1729(17)
α/°	90
β/°	114.252(5)
γ/°	90
Volume/Å ³	4285.9(7)
Z	8
ρ _{calc} /g/cm ³	1.530
μ/mm ⁻¹	1.062
F(000)	1944.0
Crystal size/mm ³	0.351 × 0.17 × 0.135
Radiation	MoKα (λ = 0.71073)
2θ range for data collection/°	4.064 to 52.744
Index ranges	-27 ≤ h ≤ 26, -13 ≤ k ≤ 13, -23 ≤ l ≤ 23
Reflections collected	24332
Independent reflections	4384 [R _{int} = 0.0549, R _{sigma} = 0.0423]
Data/restraints/parameters	4384/1/219
Goodness-of-fit on F ²	0.971
Final R indexes [I ≥ 2σ (I)]	R ₁ = 0.0801, wR ₂ = 0.2015
Final R indexes [all data]	R ₁ = 0.0875, wR ₂ = 0.2057
Largest diff. peak/hole / e Å ⁻³	1.75/-1.84



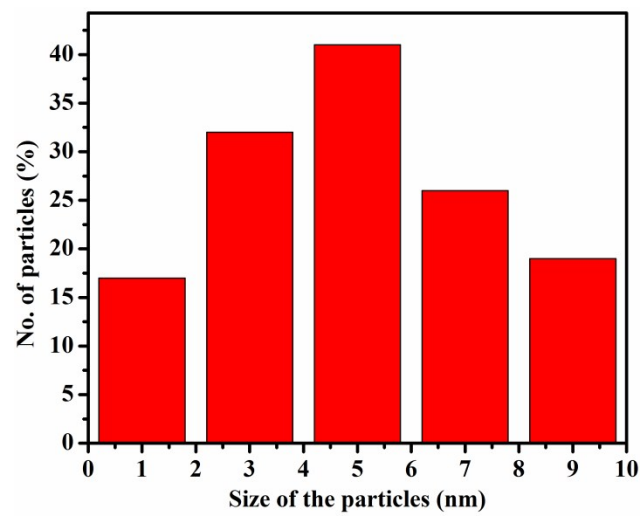
SI2: ORTEP view of the asymmetric unit of CP1 crystal.



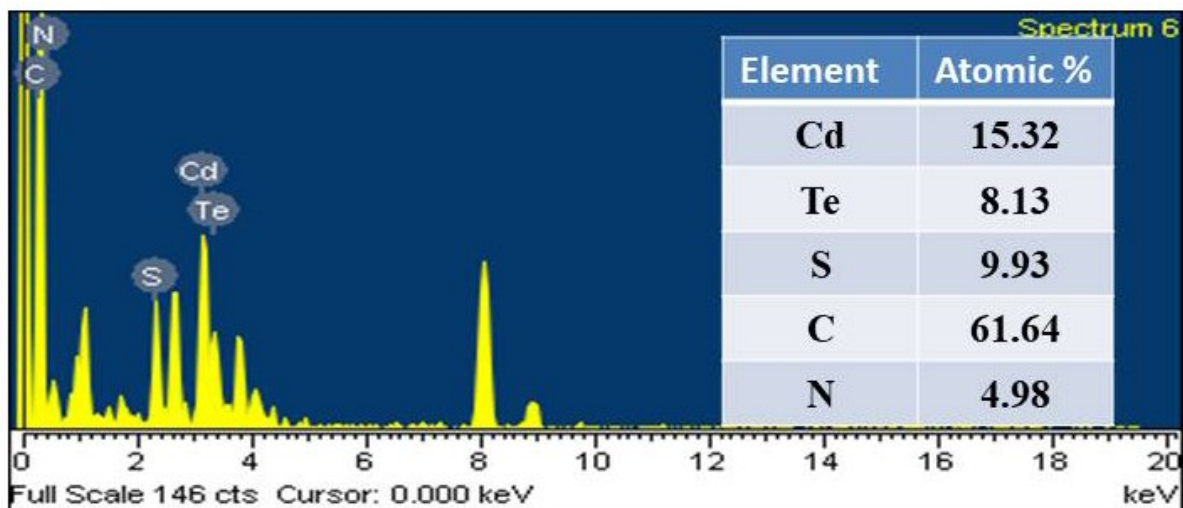
SI3: PXRD of pristine CdTe QD, CP1 and QD functionalized CP1



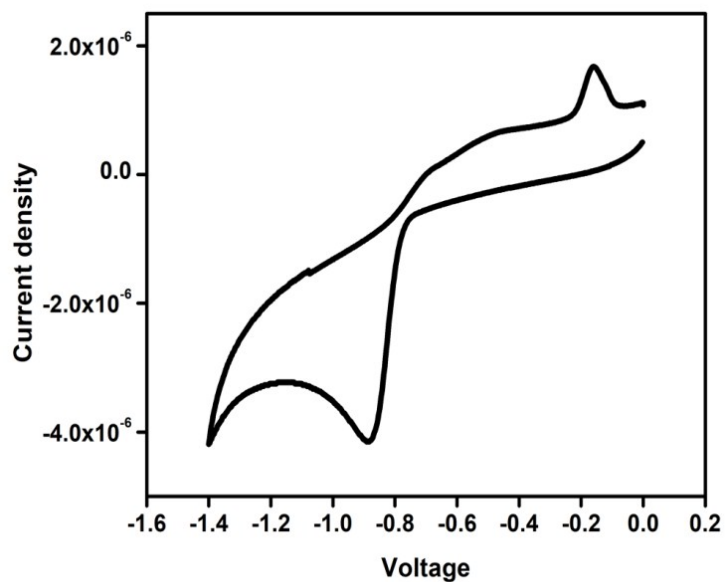
SI4: Packing of CP1 in 3D.



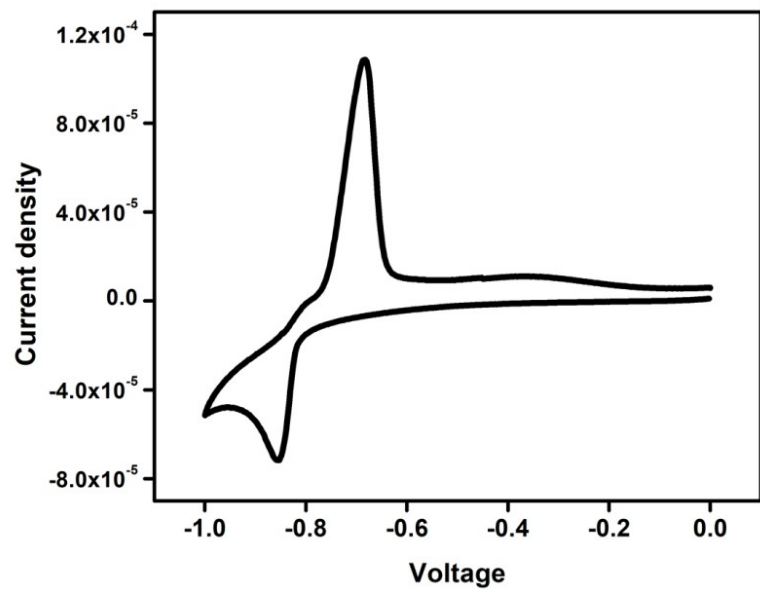
SI5: Size distribution plot of CdTe QDs.



SI6: EDX analysis of CdTe QDs.



SI7: CV diagram of CP1.



SI8: CV diagram of QD functionalizedCP1.