Supporting Information for:

A Facile and Versatile Approach to Efficient Enhancement of Solid State Luminescence by Organic-Inorganic hybrid Salt

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Crystal information:

Crystal and analysis data for 1,5-BAPA, $C_{26}H_{20}N_4$; Fw = 360.46; Triclinic, *P*-1 (#2), Z = 2, *a* = 9.9279(3) Å, *b* = 9.9281(3) Å, *c* = 10.6034(3) Å , *α* = 85.8443(14) º, *β* = 61.4620(12)º, *γ* = 87.2191(14)º, *V* = 915.62(4) Å^3, D = 1.307 g cm^{-3}, CuKα (λ = 1.54187 Å), Final *R* = 0.0698 (*R*w = 0.2400) for 1717 observed reflections. Measurements for diffraction data were carried out on a Rigaku RAXIS-RAPID imaging plate diffractometer. The structures were solved by direct methods and refined by a full-matrix least-squares treatment. The data of 1,5-BAPA has been deposited to the CCDC (Supplementary No. CCDC-941418).

Crystal and analysis data for salt **1**, $C_{15}H_{17}Cl_1N_1O_1$ Fw = 262.76; Monoclinic, $P2_1/c$ (#14), Z = 4, *a* = 5.71305(18) Å, *b* = 9.0278(4) Å, *c* = 26.9086(11) Å , *α* = 90º, *β* = 90.1610(19)º, *γ* = 90º, *V* = 1387.84(9) Å^3, D = 1.257 g cm^{-3}, CuKα (λ = 1.54187 Å), Final *R* = 0.1181 (*R*w = 0.3949) for 1054 observed reflections. The cell refinements were performed by HKL2000 software. The structures were solved by direct methods and refined by a full-matrix least-squares treatment. The data of salt **1** has been deposited to the CCDC (Supplementary No.CCDC-941419).

Crystal and analysis data for salt **2**, $C_{28}H_{28}N_2O_6S_2$; Fw = 552.66; Triclinic, *P*-1 (#2), Z = 1, *a* = 5.7607(9) Å, *b* = 8.8385(8) Å, *c* = 13.309(2) Å , *α* = 72.933(19)º, *β* = 84.68(3)º, *γ* = 83.64(3)º, *V* = 642.52(17) Å^3, D = 1.428 g cm^{-3}, MoKα (λ = 0.71075 Å), Final *R* = 0.0742 (*R*w = 0.1732) for 1620 observed reflections. The cell refinements were performed by HKL2000 software. The structures were solved by direct methods and refined by a full-matrix least-squares treatment. The data of salt **2** has been deposited to the CCDC (Supplementary No.CCDC-941420).

Crystal and analysis data for salt **3**, $C_{15}H_{16}N_1O_3S_1$; Fw = 290.36; Monoclinic, $P2_1/c$ (#14), Z = 4, *a* = 16.6824(4) Å, *b* = 9.3186(3) Å, *c* = 9.3783(3) Å , *α* = 90º, *β* = 100.1035(14)º, *γ* = 90º, *V* = 1435.31(6) Å^3, D = 1.1344 g cm^{-3}, CuKα (λ = 1.54187 Å), Final *R* = 0.1230 (*R*w = 0.4006) for 1149 observed reflections. The cell refinements were performed by HKL2000 software. The structures were solved by direct methods and refined by a full-matrix least-squares treatment. The data of salt **3** has been deposited to the CCDC (Supplementary No.CCDC-941421).

Crystal and analysis data for salt **4**, $C_{42}H_{44}N_2O_8S_4$; Fw = 833.06; Triclinic, *P*-1 (#2), Z = 2, *a* = 5.9458(3) Å, *b* = 8.3297(4) Å, *c* = 41.4851(19) Å , *α* = 91.240(3)º, *β* = 91.045(3)º, *γ* = 96.474(3)º, *V* = 2040.60(16) Å^3, D = 1.356 g cm^{-3}, CuKα (λ = 1.54187 Å), Final *R* = 0.1039 (*R*w = 0.3367) for 2043 observed reflections. The cell refinements were performed by HKL2000 software. The structures were solved by direct methods and refined by a full-matrix least-squares treatment. The data of salt **4** has been deposited to the CCDC (Supplementary No.CCDC-941422).

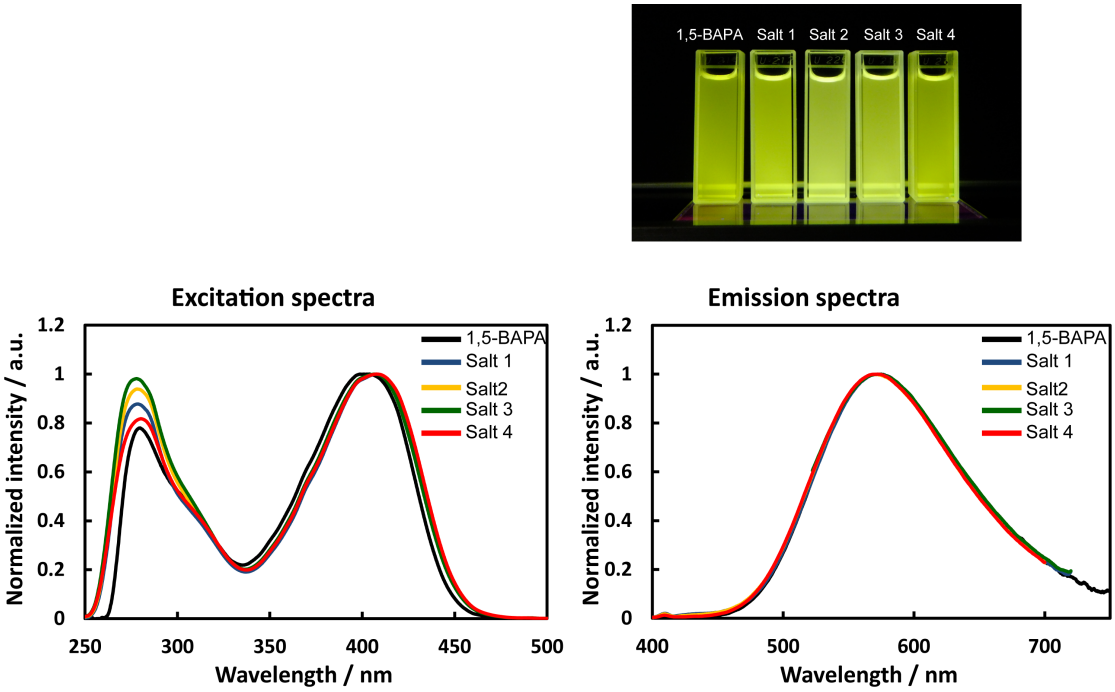

Fig. S1 Photographs of 1,5-BAPA and salts **1–4** in DMSO solution under UV irradiation (λ = 365 nm) Excitation and emission spectra of 1,5-BAPA and salts 1–4 in DMSO solution. The concentration of was maintained at 1×10^{-5} M.

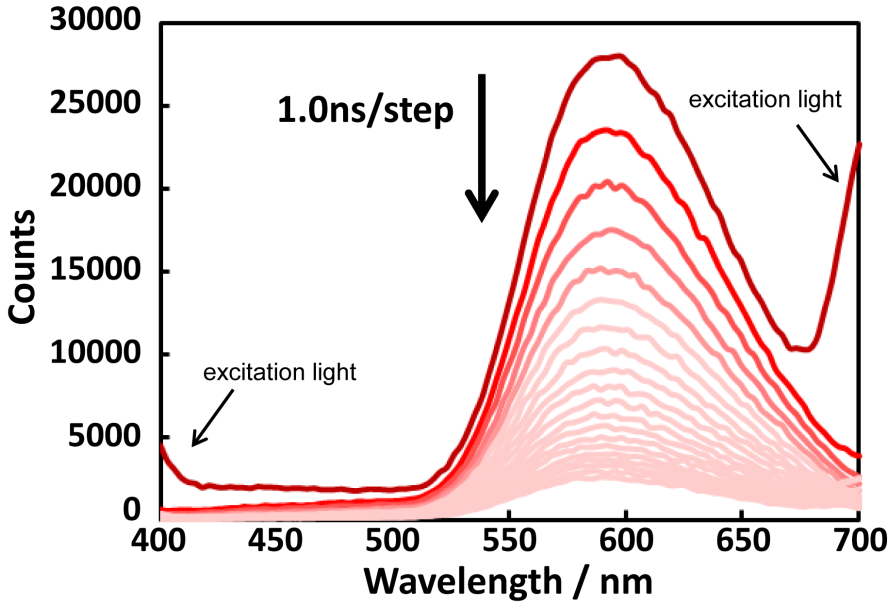

Fig. S2 Time-resolved emission spectra of salt **4** crystal**.**

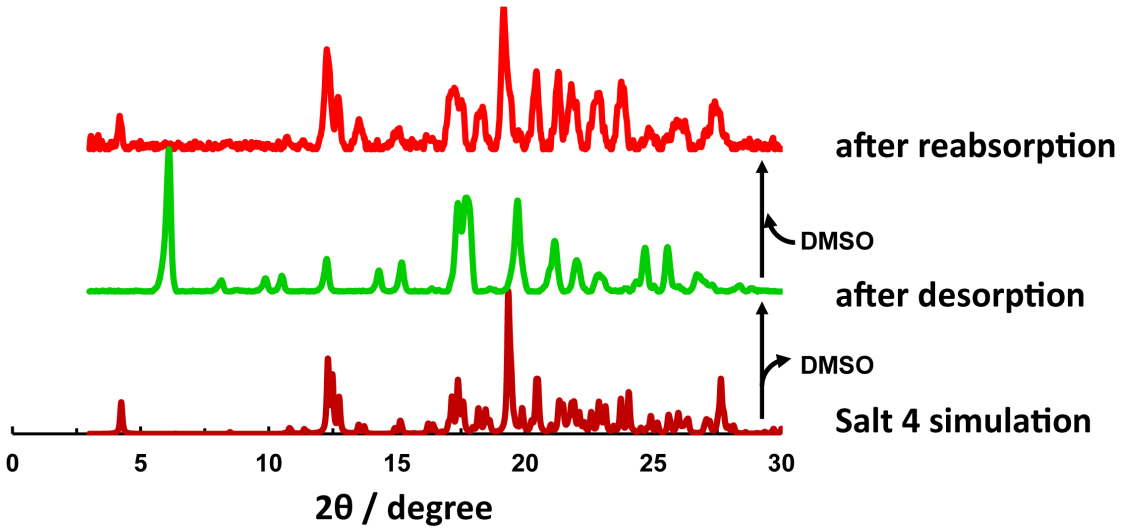

Fig. S3 Powder X-ray diffraction patterns of salt 4, after desorption and re-absorption of DMSO.