

REVISED

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Supporting Information Figure Captions

Figure S-1. Computed mass spectrum isotope distribution profile for $C_{56}H_{50}O_2N_8F_6P_1Ru_1$

Figure S-2. Electrospray mass spectrum for **55Ru**.

Figure S-3. Electrospray mass spectrum for **44Ru**.

Figure S-4. Proton NMR spectrum of **44L** in $CDCl_3$ solution.

Figure S-5. Proton NMR spectrum of **44Ru** in CD_3CN solution.

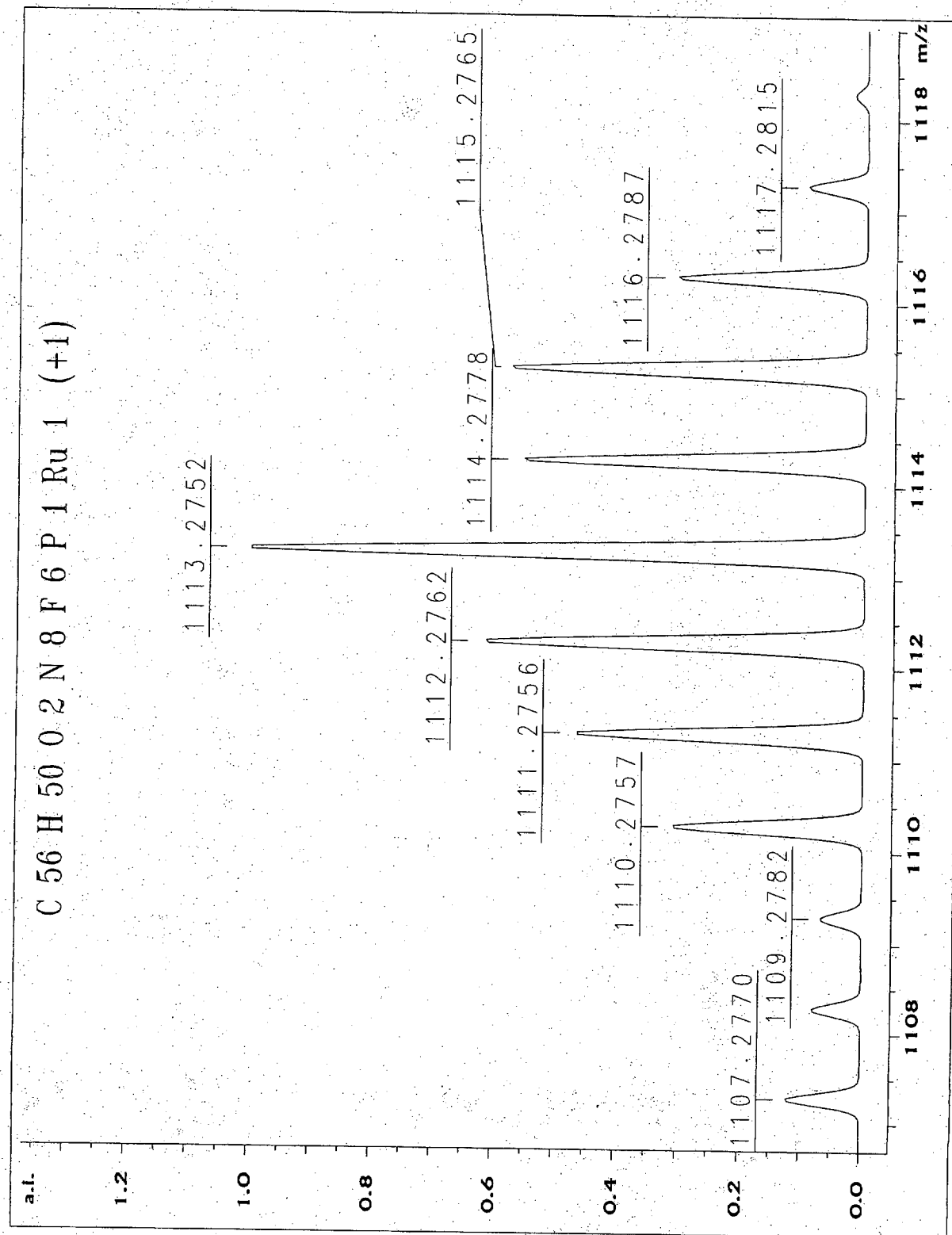
Figure S-6. Proton NMR spectrum of **55L** in $CDCl_3$ solution.

Figure S-7. Proton NMR spectrum of **55Ru** in CD_3CN solution. Numbers give the value of the integrals for the corresponding peaks.

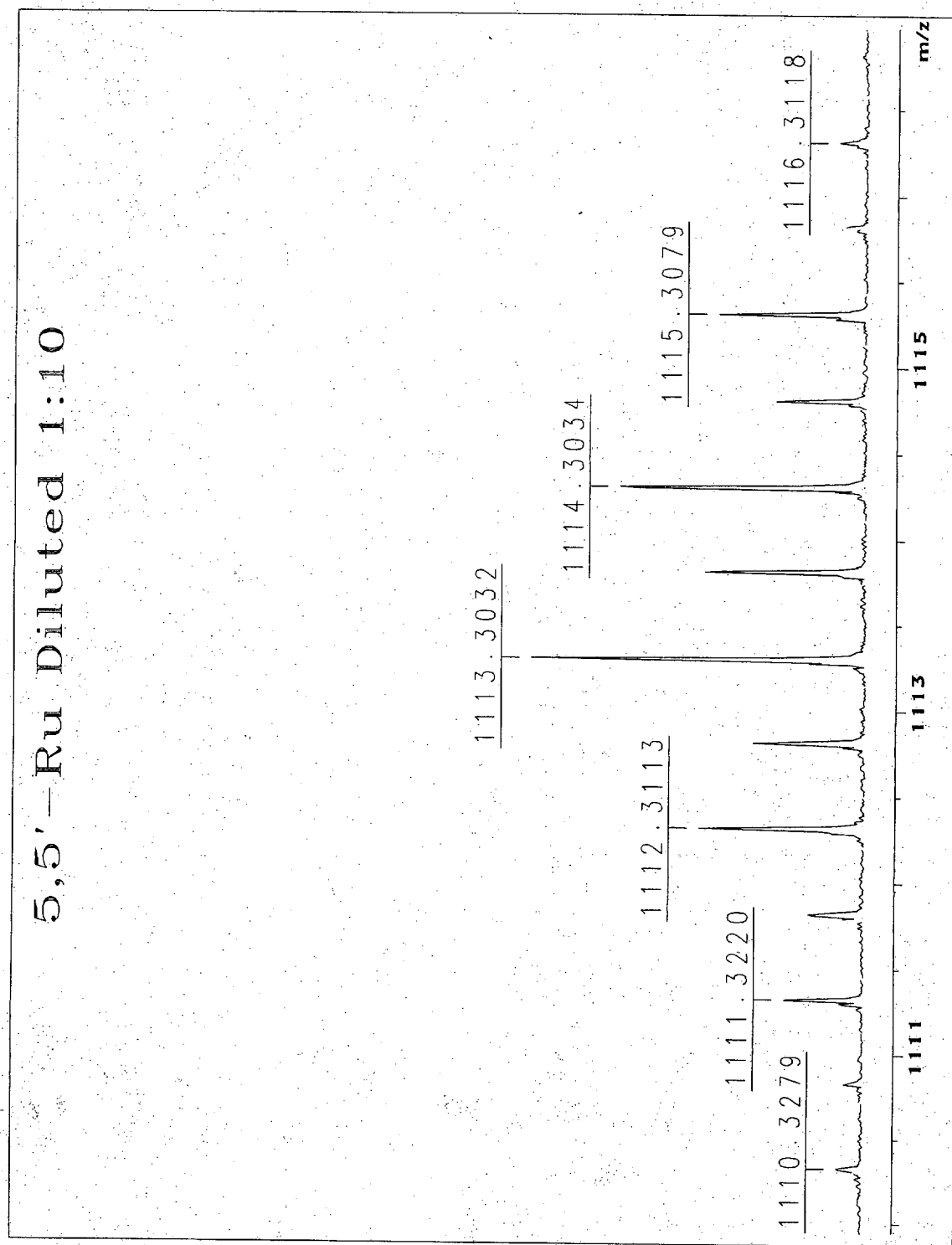
Figure S-8. Fitted emission spectra. Points are experimental data and solid line is calculated spectrum using eq. 1 and parameters in Table 1. (a) **44Ru** at 80 K in 4:1 ethanol/methanol. (b) **44Ru** at 298 K in 4:1 ethanol/methanol. (c) **55Ru** at 80 K in 4:1 ethanol/methanol. (d) **55Ru** at 298 K in 4:1 ethanol/methanol.

Table S-1. Temperature dependence of emission decay lifetimes for **44Ru** and **55Ru** in CH_3CN solution.

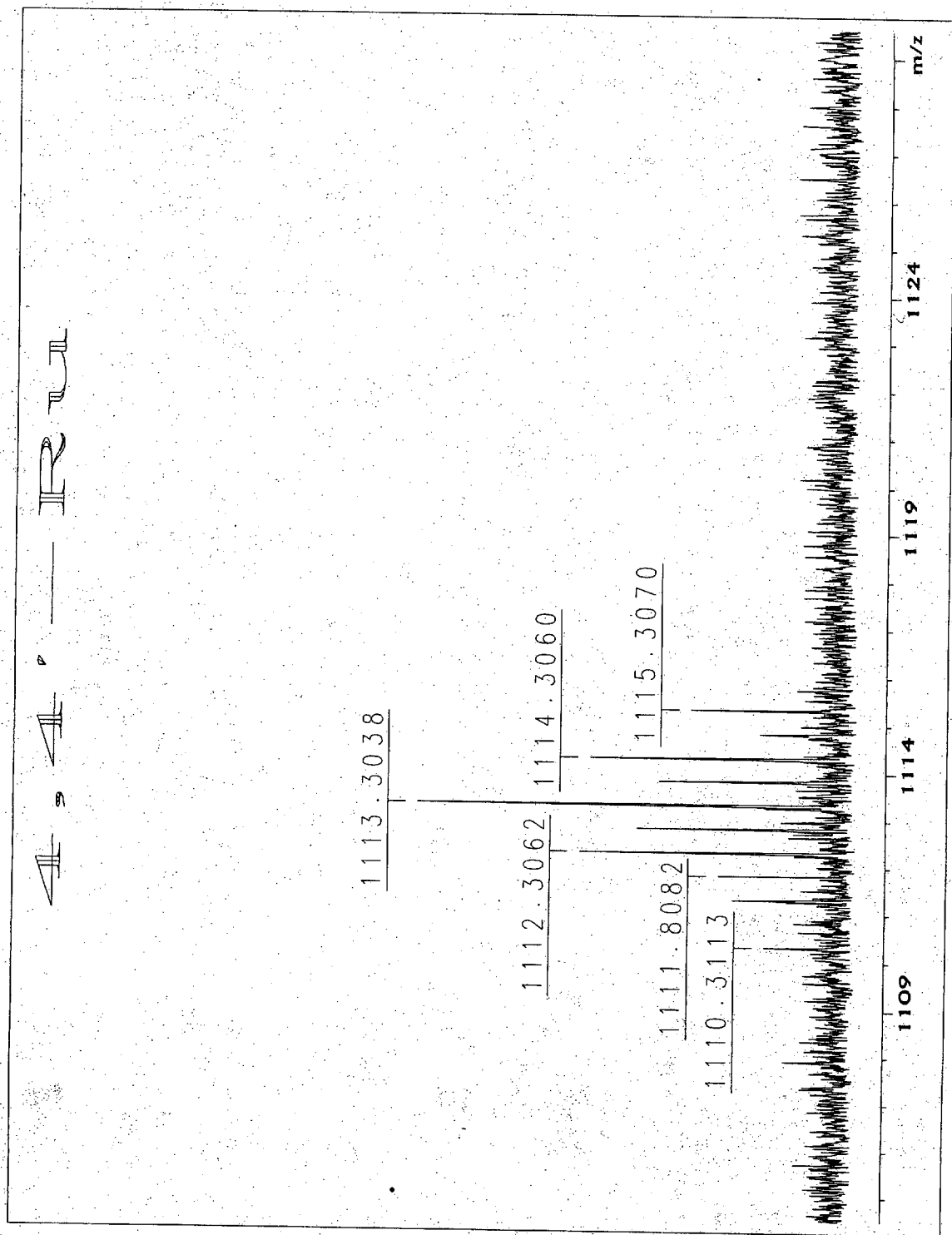
Schanze, K. S. corresponding author, Supporting Information Figure S-1



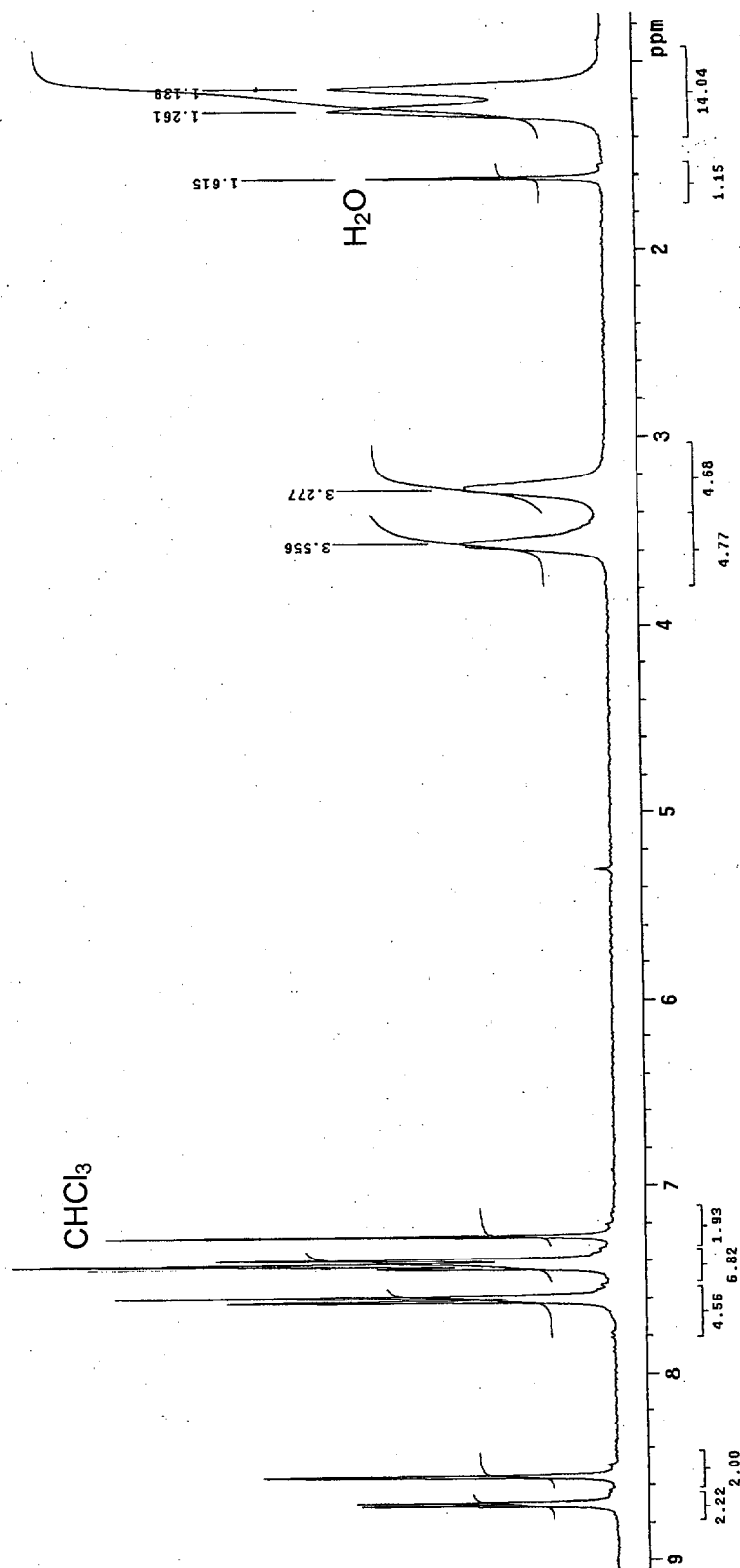
Schanze, K. S. corresponding author, Supporting Information Figure S-2



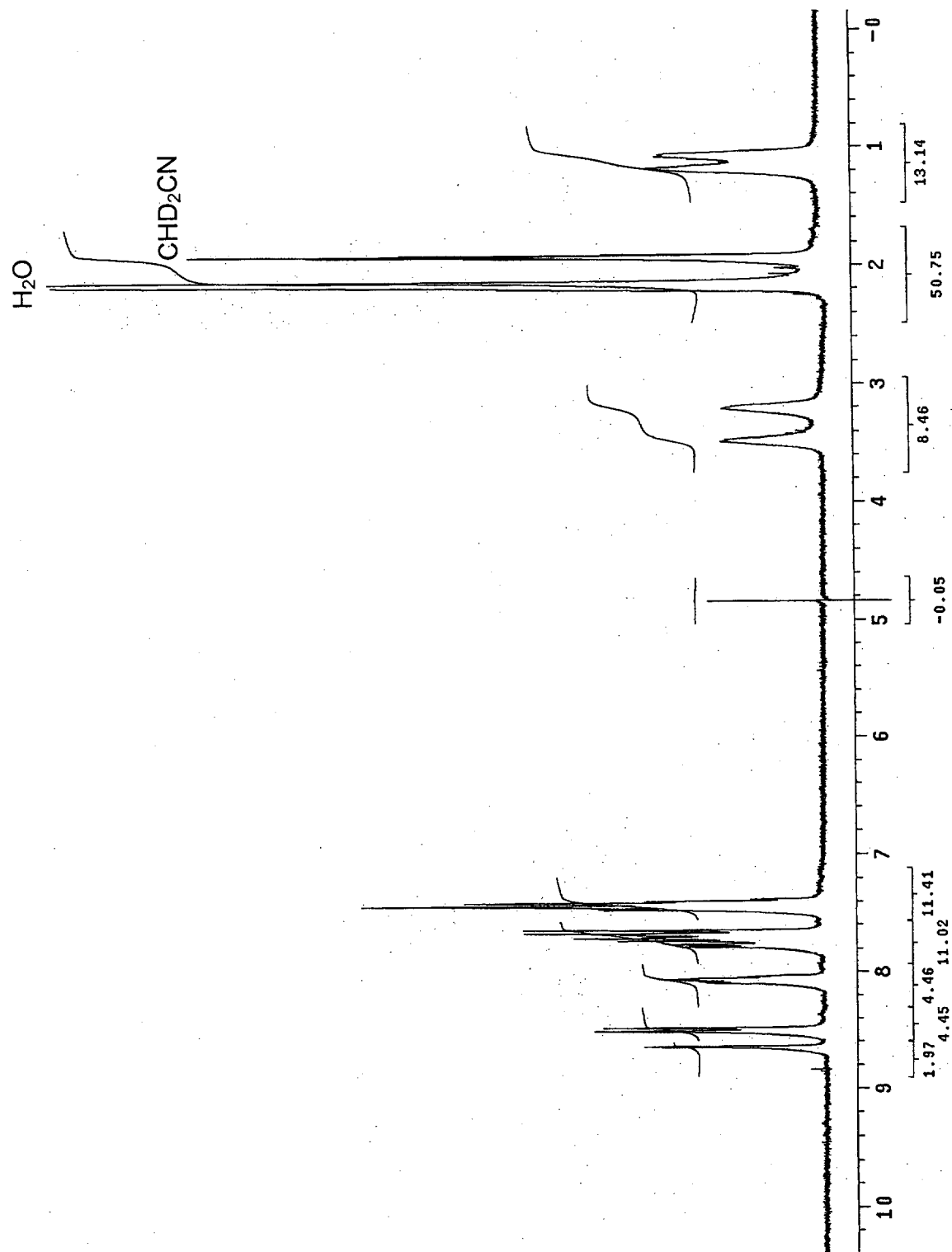
Schanze, K. S. corresponding author, Supporting Information Figure S-3



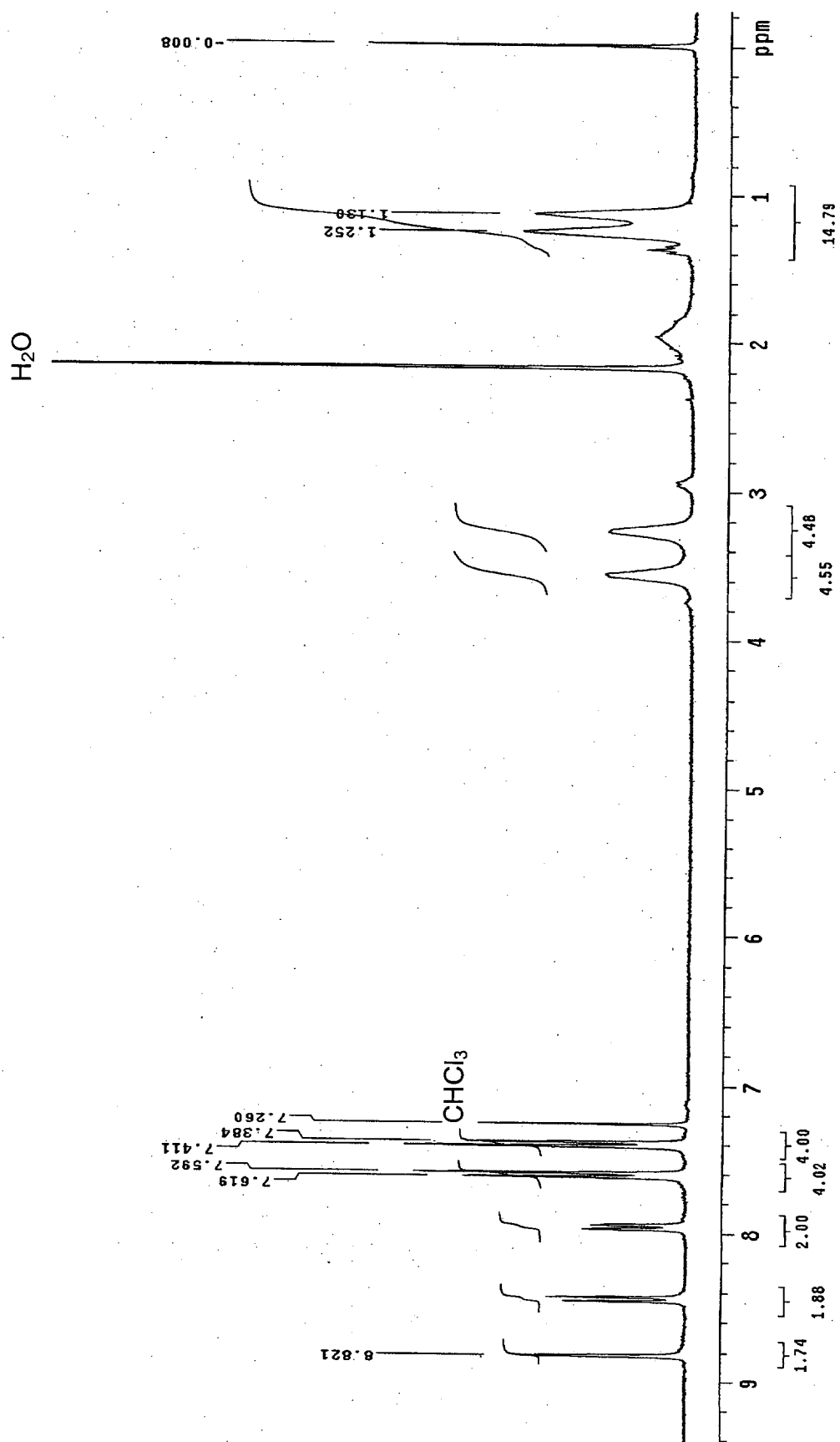
Schanze, K. S. corresponding author, Supporting Information Figure S-4



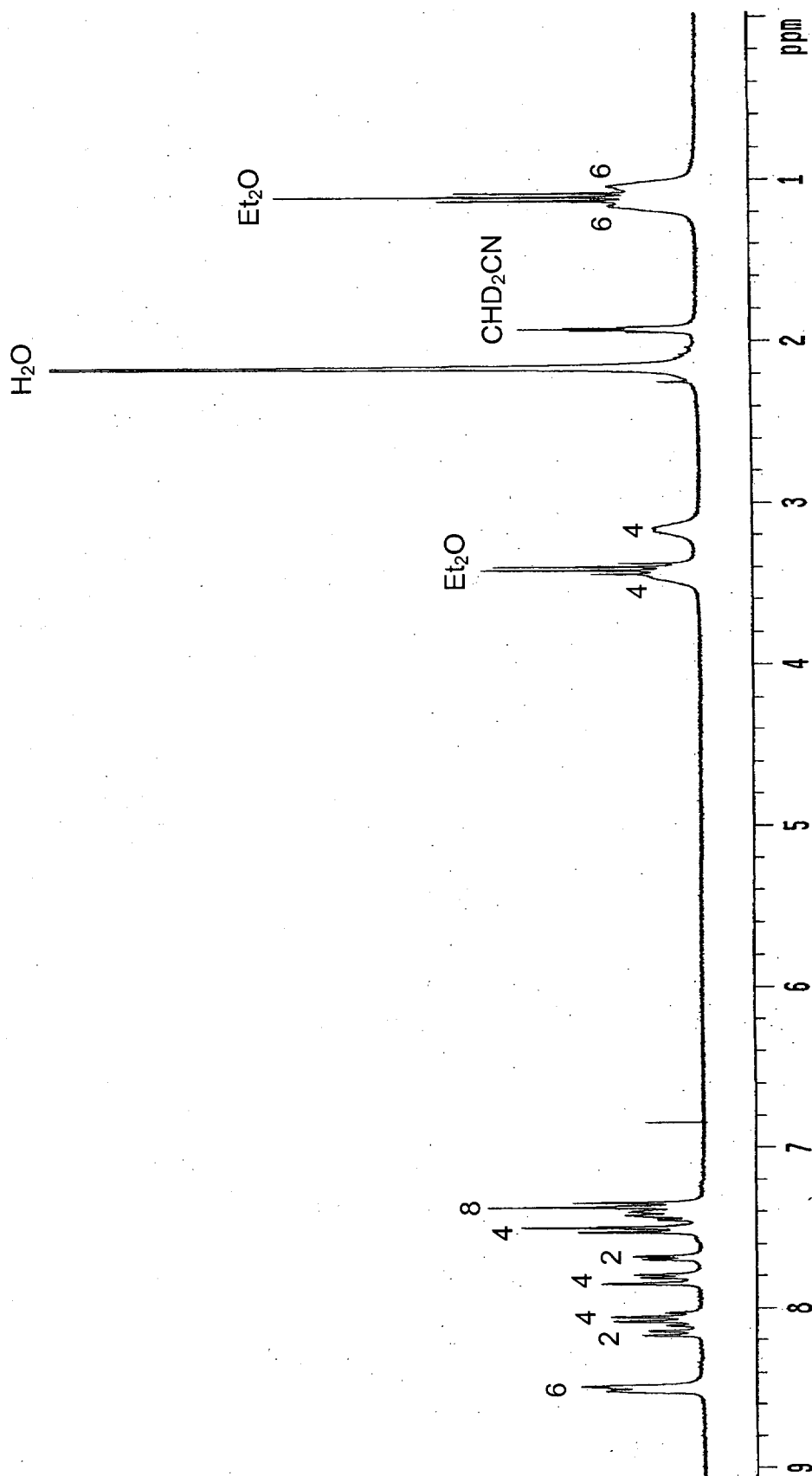
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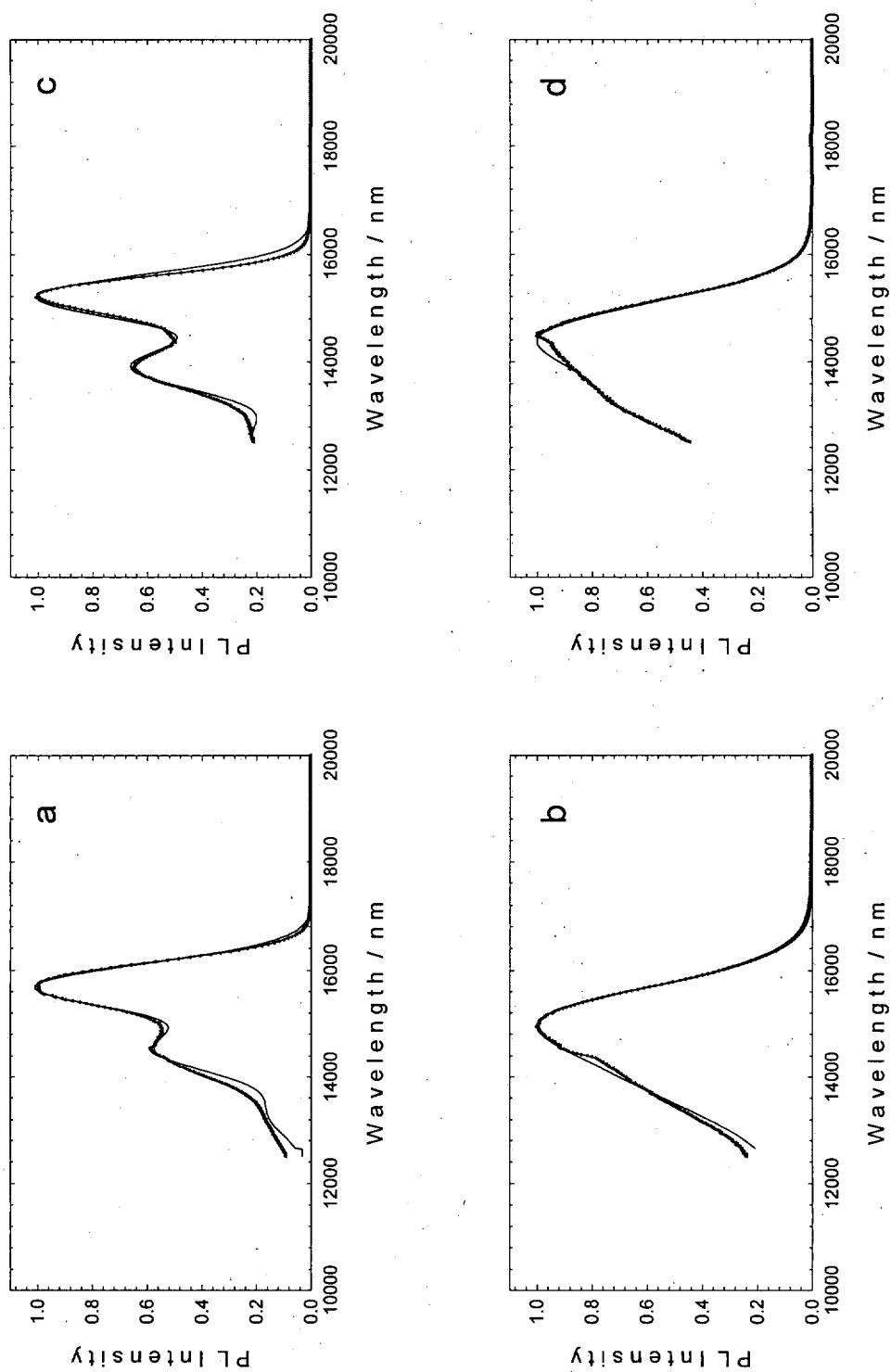


Table S-1. Emission Lifetime Temperature Dependence ^a

Temperature / K	44Ru τ / ns	55Ru τ / ns
235	542	1600
245	545	1570
255	534	1540
265	531	1500
275	528	1480
285	526	1450
295	527	1420

^a Acetonitrile solvent, argon-outgassed.