

## Supporting Information to the paper entitled

### Proficiency of the electron-deficient 1,3,5-triazine ring to generate anion- $\pi$ and lone-pair- $\pi$ interactions

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#### Table of Contents

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<b>Table S1.</b> Crystal data and structure refinement details for compound <b>cspat</b>	Page S2
<b>Figure S1.</b> Single-crystal X-ray structure of the ligand <b>cspat</b>	S3
<b>Figure S2.</b> Illustration of the nitrate- $\pi$ interaction occurring in the solid-state structure of compound <b>3</b>	S3
<b>Figure S3.</b> Illustrations of the anion- $\pi$ /lone pair- $\pi$ / $\pi$ -lone pair/ $\pi$ -anion supramolecular complex observed in the solid-state structure of compound <b>3</b>	S4

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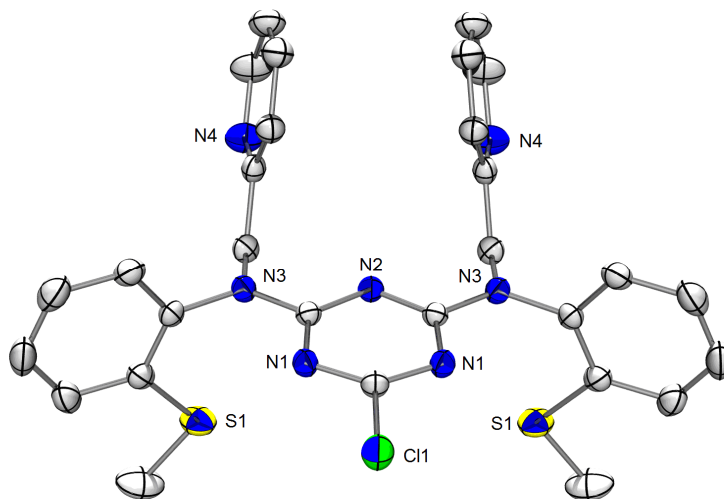
**Table S1** Crystal data and structure refinement details for **cspat**

Empirical formula	$C_{29}H_{26}Cl_1N_7S_2$		
Fw ( $g\ mol^{-1}$ )	572.14		
Crystal system	Orthorhombic		
Space group	<i>Pbnm</i>		
Crystal colour and size	colourless	$0.16 \times 0.16 \times 0.04\ mm^3$	
Temperature (K)	293(2)		
Unit cell parameters	$a = 10.6745(2)\ \text{\AA}$	$\alpha = 90^\circ$	
	$b = 11.5441(2)\ \text{\AA}$	$\beta = 90^\circ$	
	$c = 22.9797(3)\ \text{\AA}$	$\gamma = 90^\circ$	
$V\ (\text{\AA}^3)$	2831.73(8)		
$Z$	4		
$\rho_{\text{calcd}}\ (\text{Mg}/\text{m}^3)$	1.342		
$\mu\ (\text{mm}^{-1})$	0.315		
$F(000)$	1192		
$\theta$ for data collection (deg)	3.27 – 27.09		
Reflections collected	5896		
Independent reflections	3193 ( $R_{\text{int}} = 0.0405$ )		
Reflections with $F^2 > 2\sigma$	2027		
Data / restraints / parameters	3193 / 0 / 182		
Final $R$ indices [ $F^2 > 2\sigma$ ]	$R_1 = 0.0504$	$wR_2 = 0.1215$	
$R$ indices (all data)	$R_1 = 0.0953$	$wR_2 = 0.1393$	
goodness of fit on $F^2$ <sup>a</sup>	1.062		
largest diff. peak and hole ( $e\ \text{\AA}^{-3}$ )	0.229 and $-0.291$		

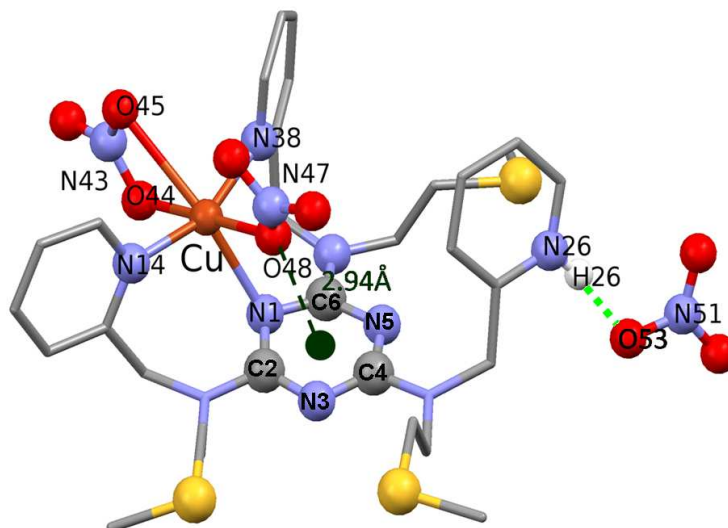
<sup>a</sup> Goodness-of-fit  $S = \{\sum[w(F_o^2 - F_c^2)^2]/(n - p)\}^{1/2}$ , where  $n$  is the number of reflections and  $p$  the number of parameters.

CCDC reference number 770310

**Figure S1.** ORTEP view of the single-crystal X-ray structure of the ligand 2-chloro-4,6-bis-*N*-[2-methylsulfonyl-*N*-(pyridin-2-ylmethyl)aniline]-1,3,5-triazine (**cspat**). H atoms are omitted for clarity.



**Figure S2.** Illustration showing the close contact between the coordinated nitrate anion (oxygen atom O48) and the 1,3,5-triazine ring in **3**, characterized by a O41...triazine centroid distance of 2.940(5) Å. The N26–H26...O53 hydrogen bond distance is 2.630(4) Å and the angle N26–H26–O53 is 167.00°.



**Figure S3.** A) Scheme illustrating the supramolecular dimerization through double lone pair- $\pi$  contacts; **B** and **C**) Two views (in space-filling mode) of the anion- $\pi$ /lone pair- $\pi$ / $\pi$ -lone pair/ $\pi$ -anion supramolecular association observed in the crystal structure of **3**.

