

# The imperfect spin crossover transition of a cobalt complex with symmetric pyrazine imide ligands



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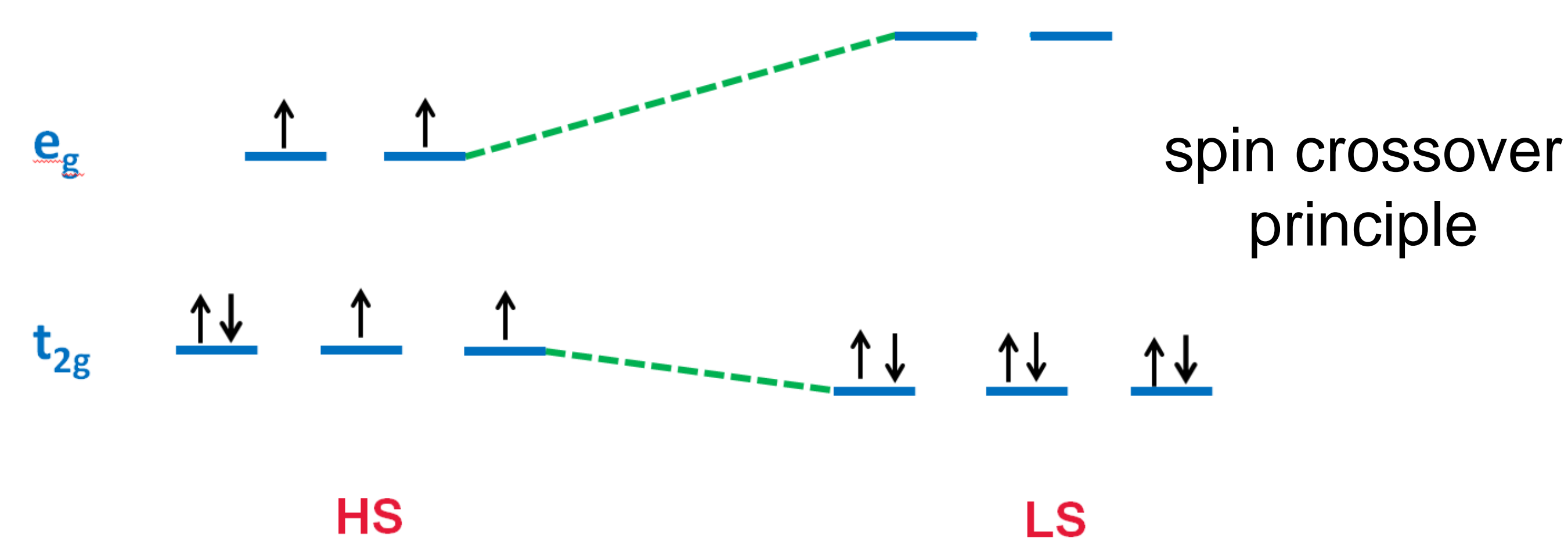
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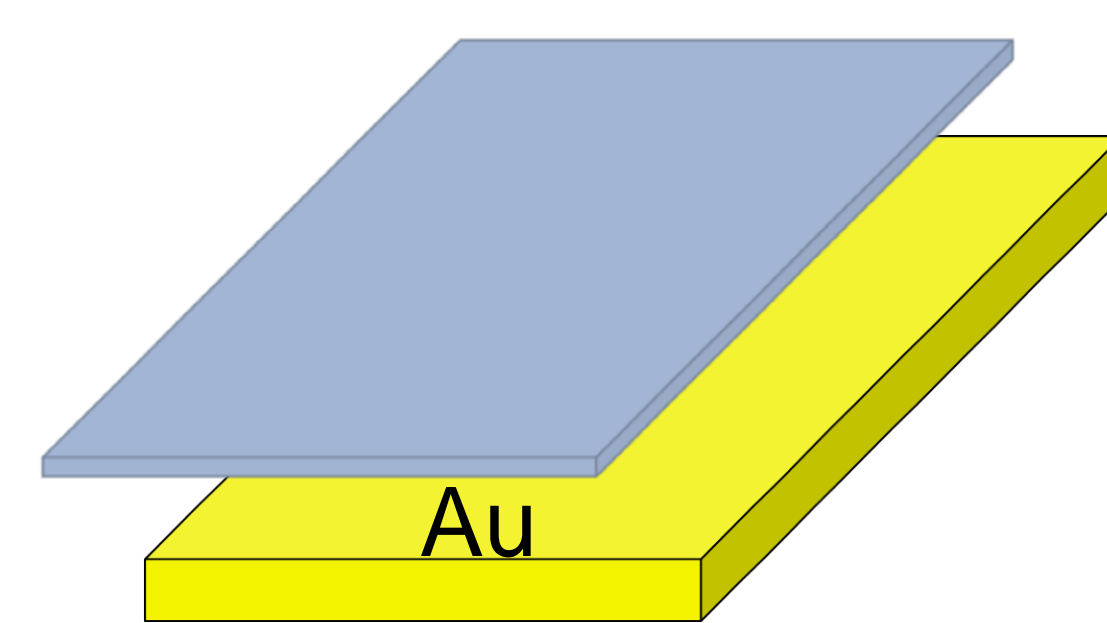
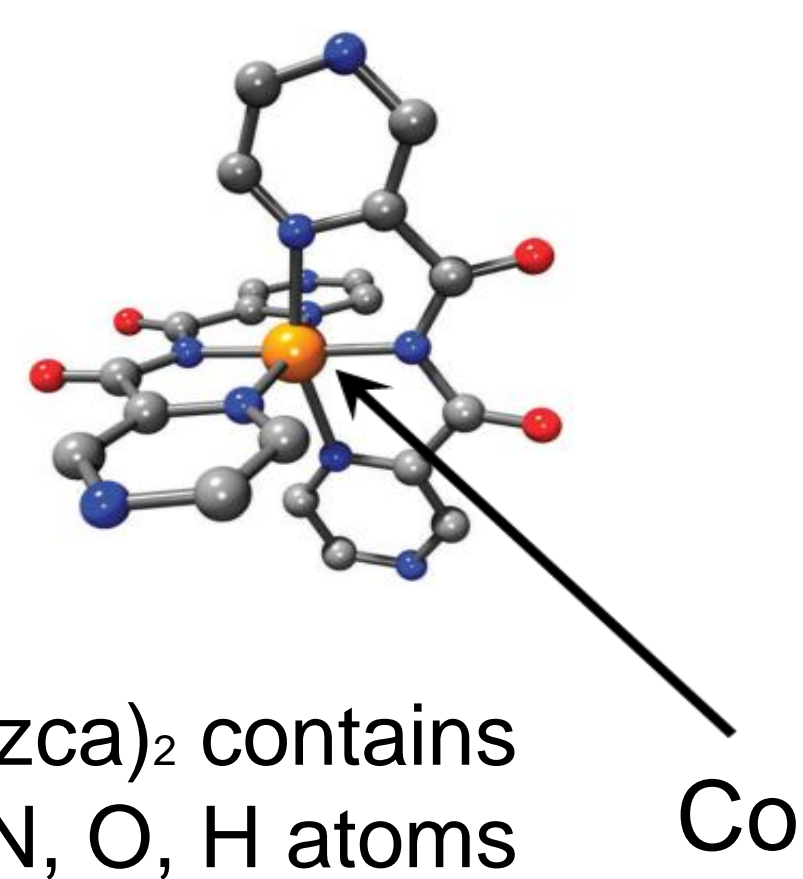


## I. Introduction

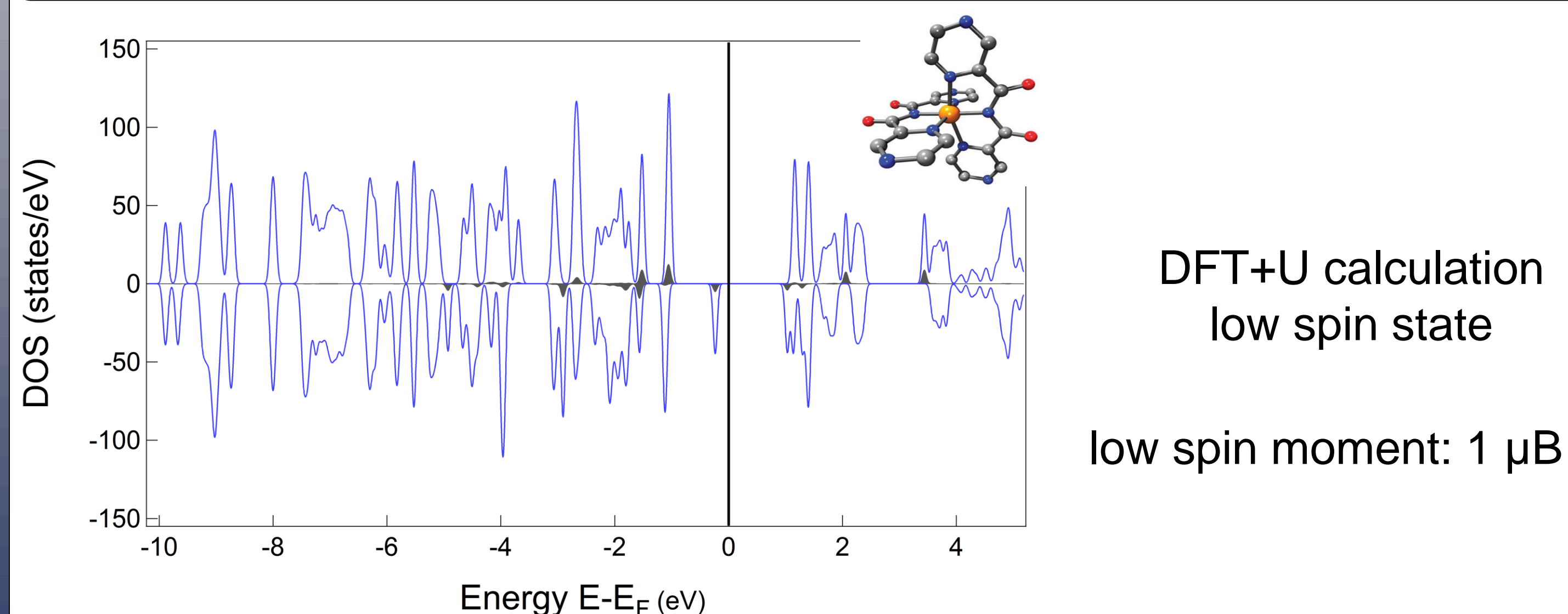
d<sup>6</sup> electrons configuration:



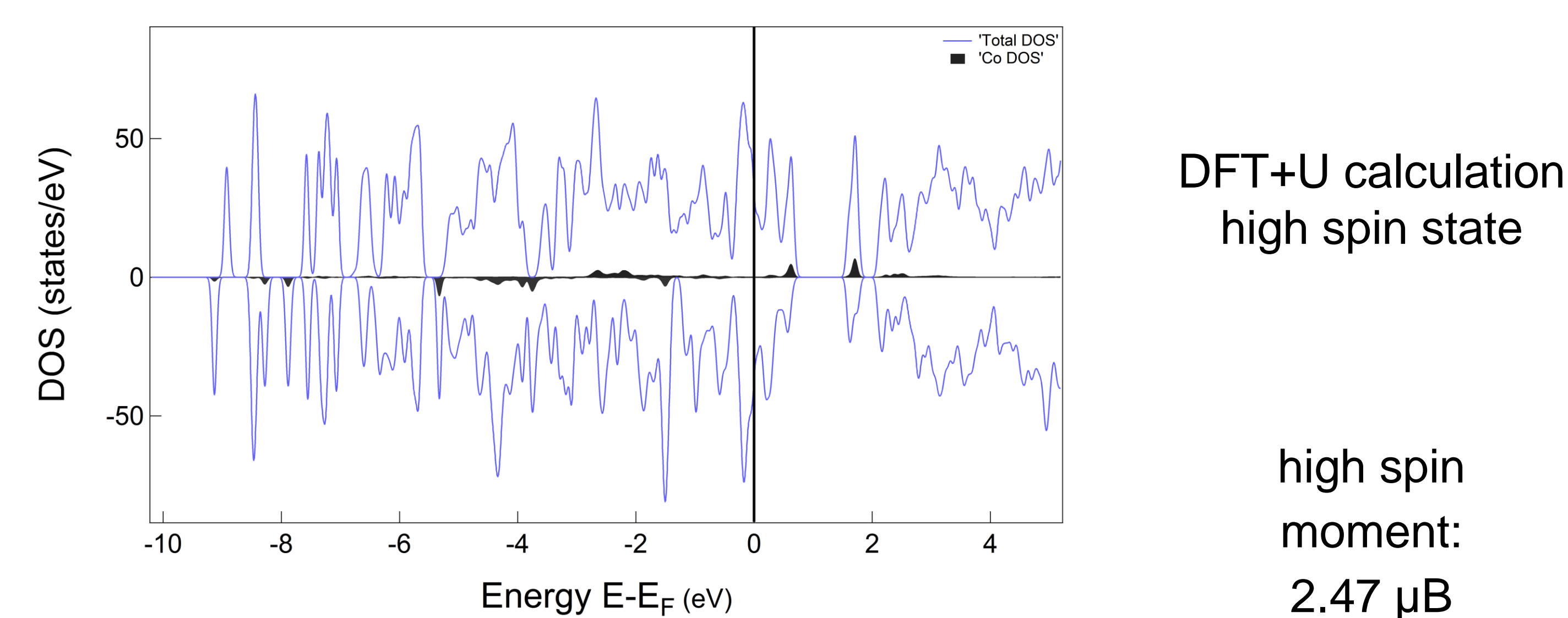
a spin crossover molecule with symmetric pyrazine imide ligands and a cobalt metal center



## II. Theoretical Calculation

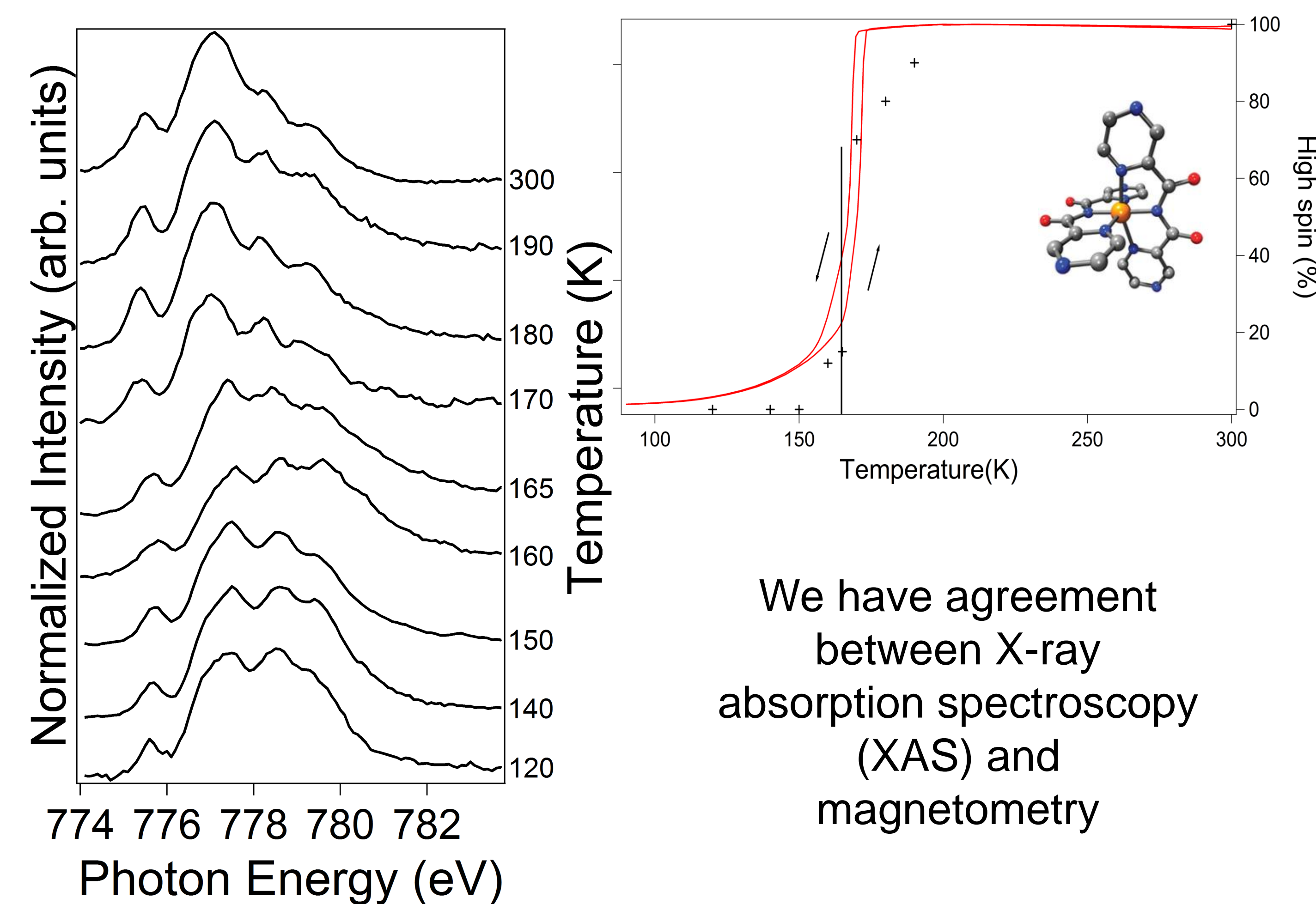


Key point: theory suggests that the low spin state is certainly not zero spin



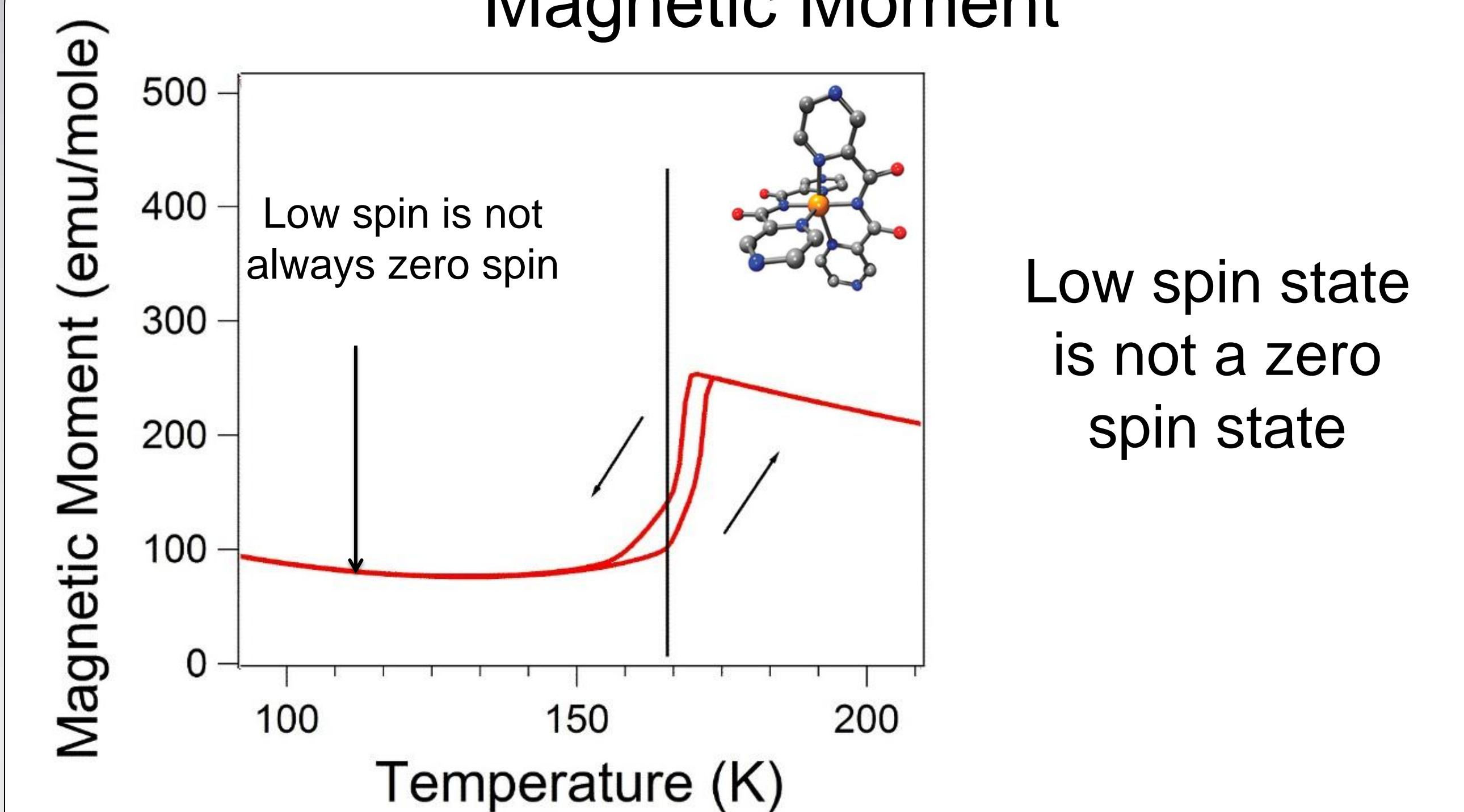
## III. Experimental Results

### XAS and Magnetic Susceptibility



We have agreement between X-ray absorption spectroscopy (XAS) and magnetometry

### Magnetic Moment



## IV. Conclusion

The low spin state of [Co(dpzca)<sub>2</sub>] is not a zero spin state but simply a lower moment state would occur below the spin crossover transition.

## V. Acknowledgements

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