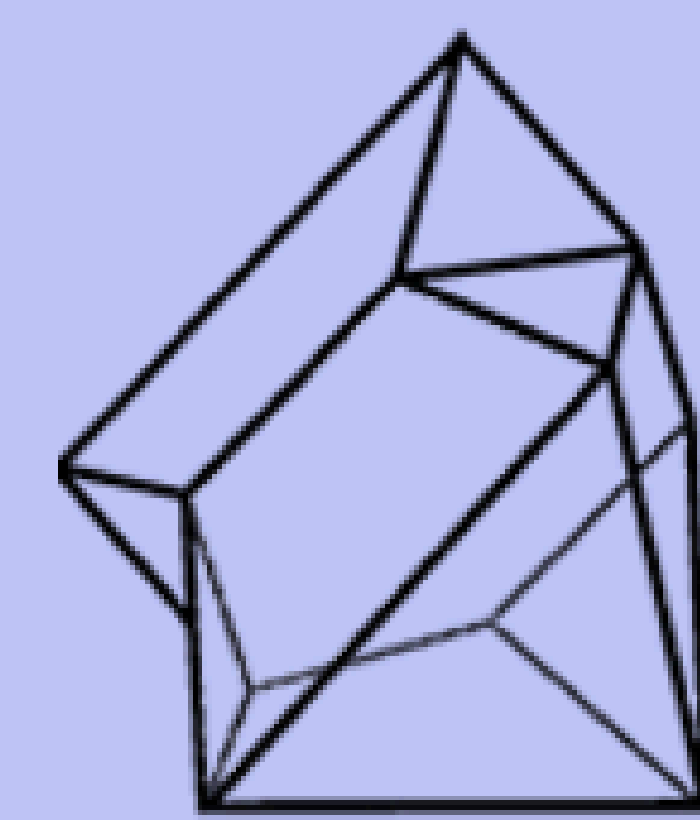


Mechanochemical Synthesis of Expanded Halide Perovskites with Mixed-Valence

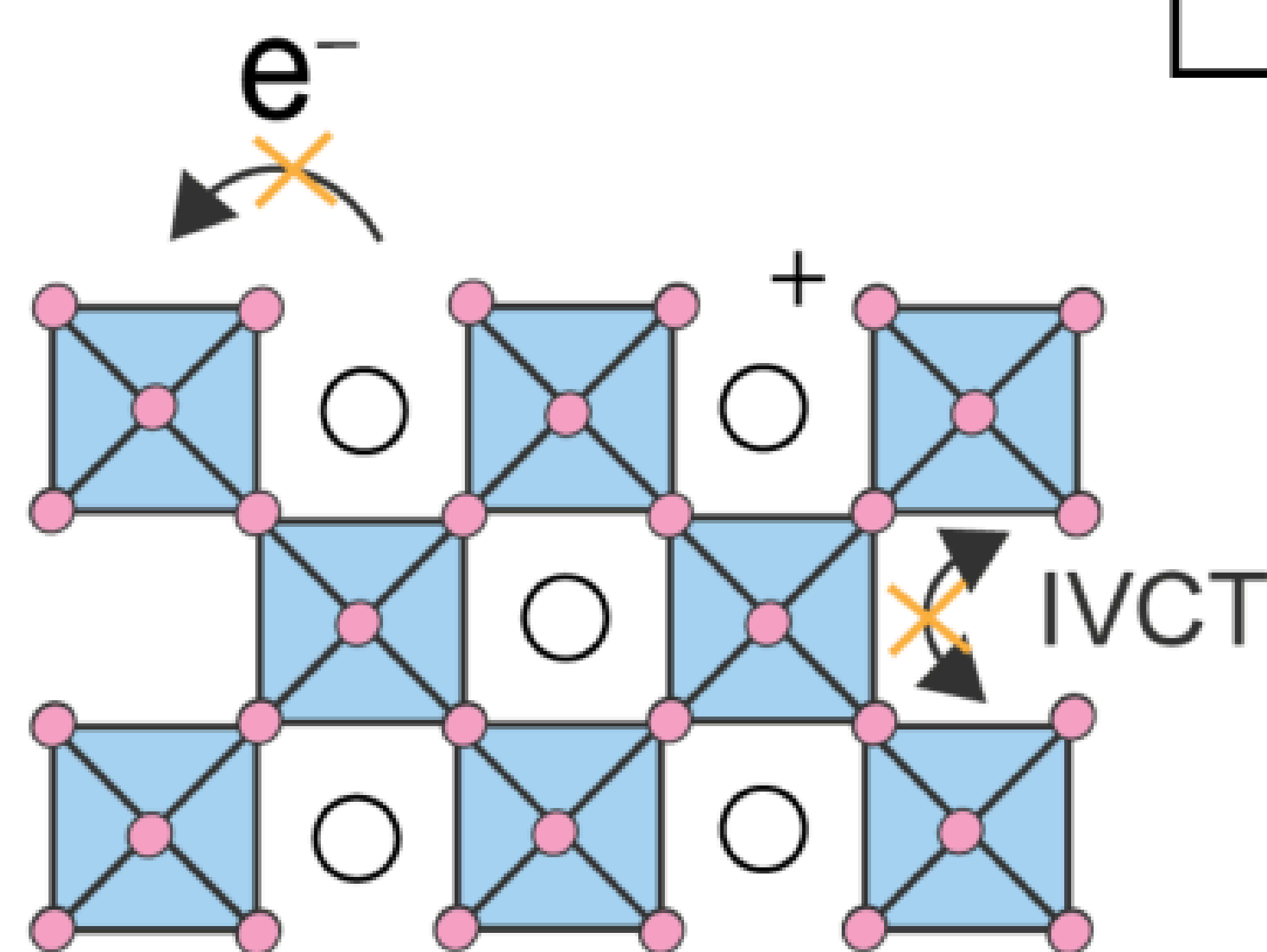


MATHEU LAB

Beatriz Vicente Cuatrecasas, Xavier Rodriguez-Rubio, Roc Matheu

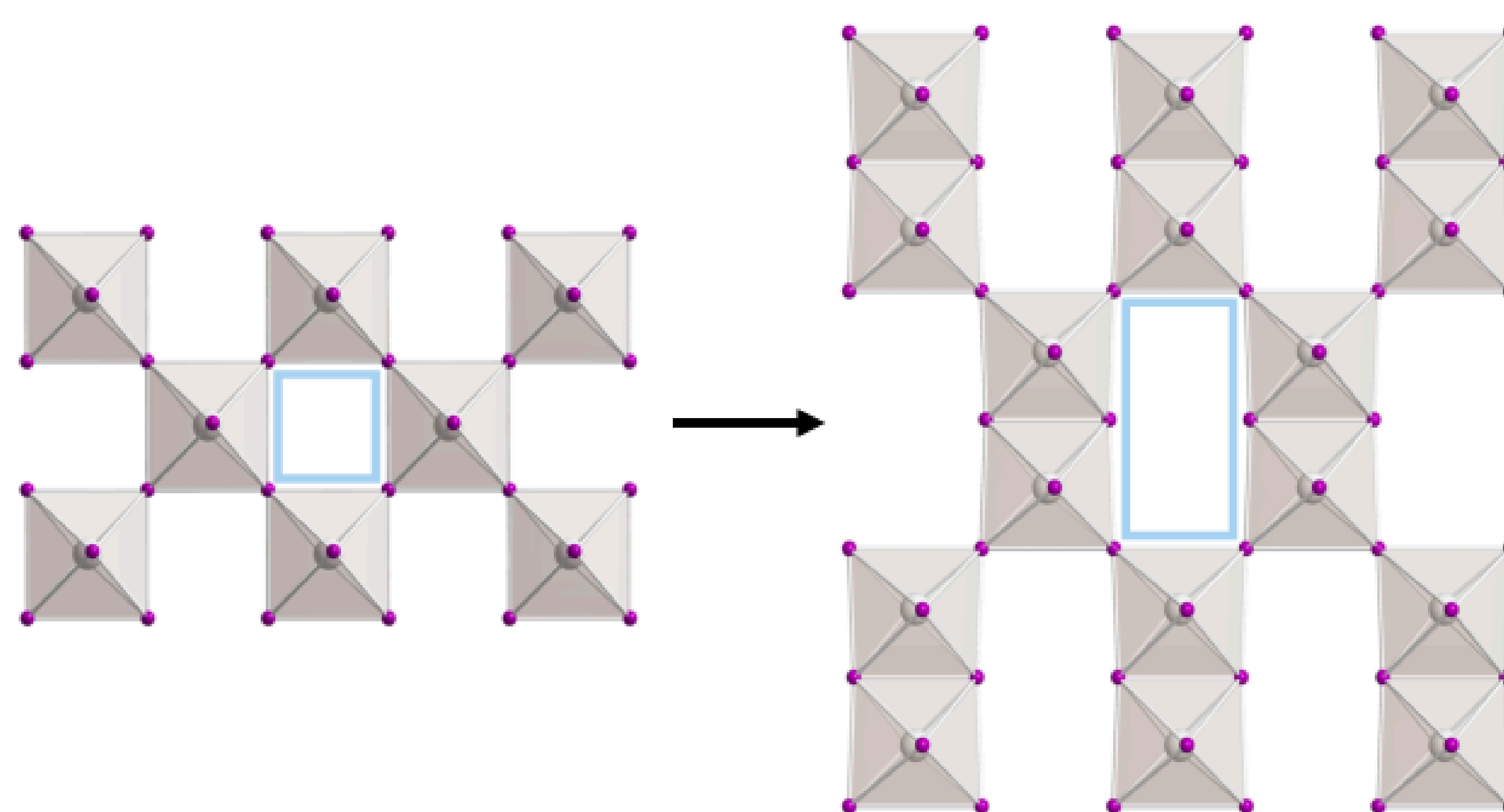
Department of Inorganic and Organic Chemistry, Institut de Química Teòrica i Computacional, Universitat de Barcelona

Expanded Perovskites

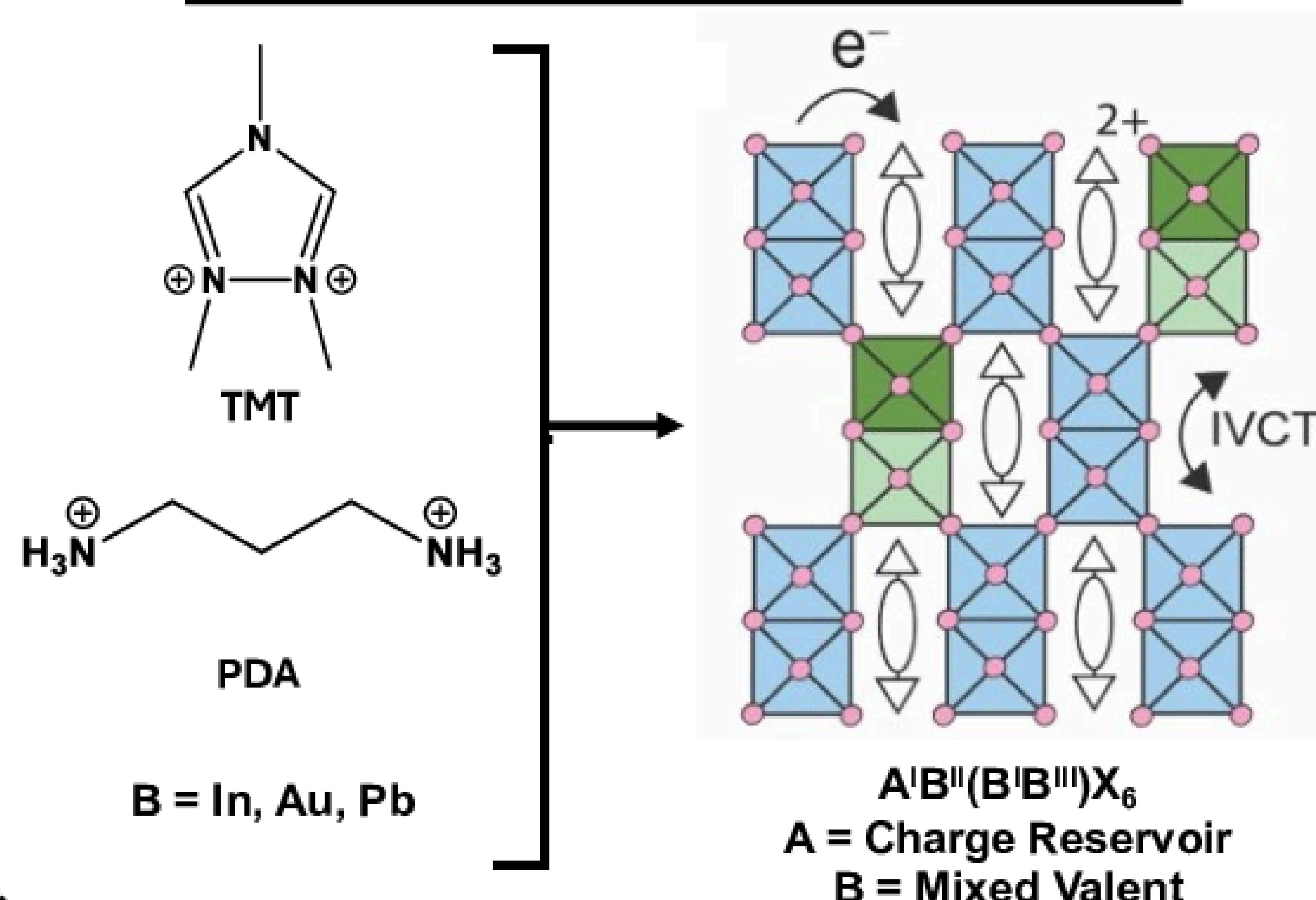


$A'B''X_3$
A = Redox Innocent
B = Single Valent

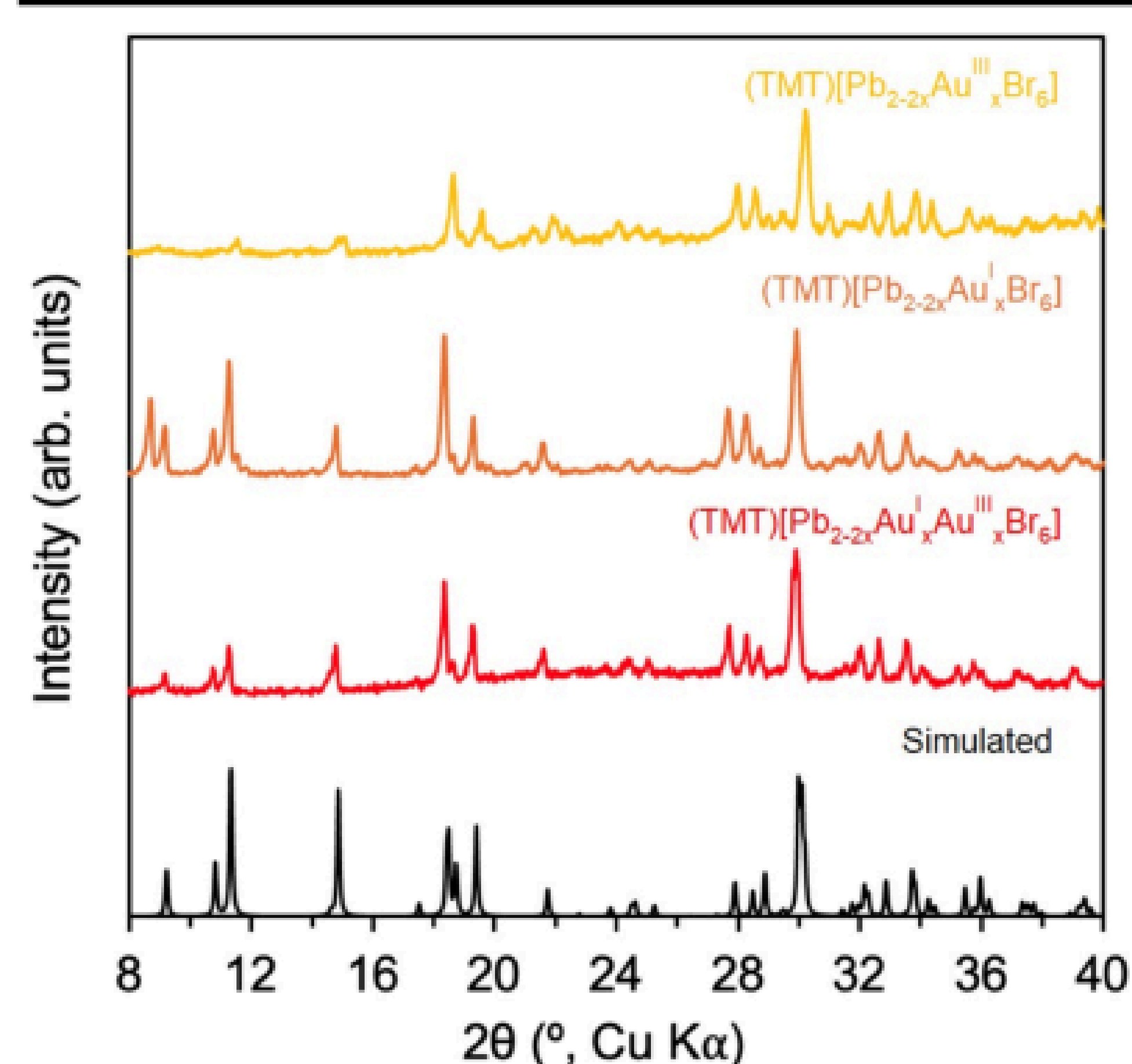
Energy
Bp
Xp
Bs



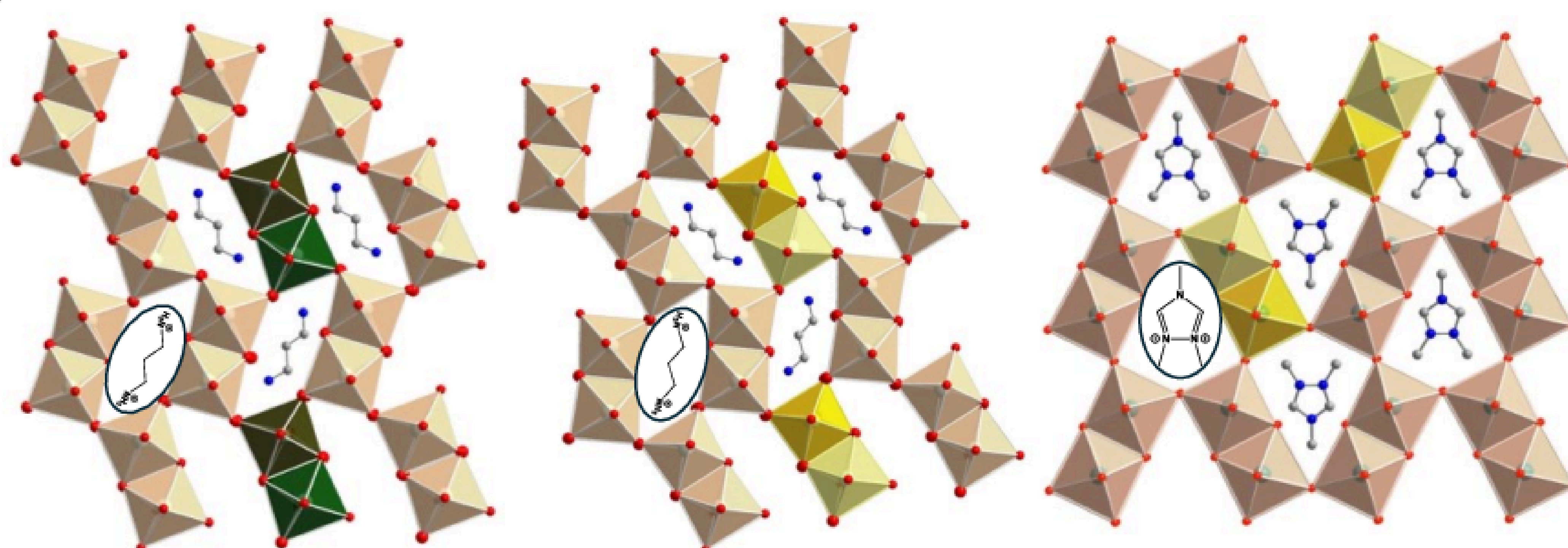
Mixed-valence B-sites



Powder X-Ray Diffraction



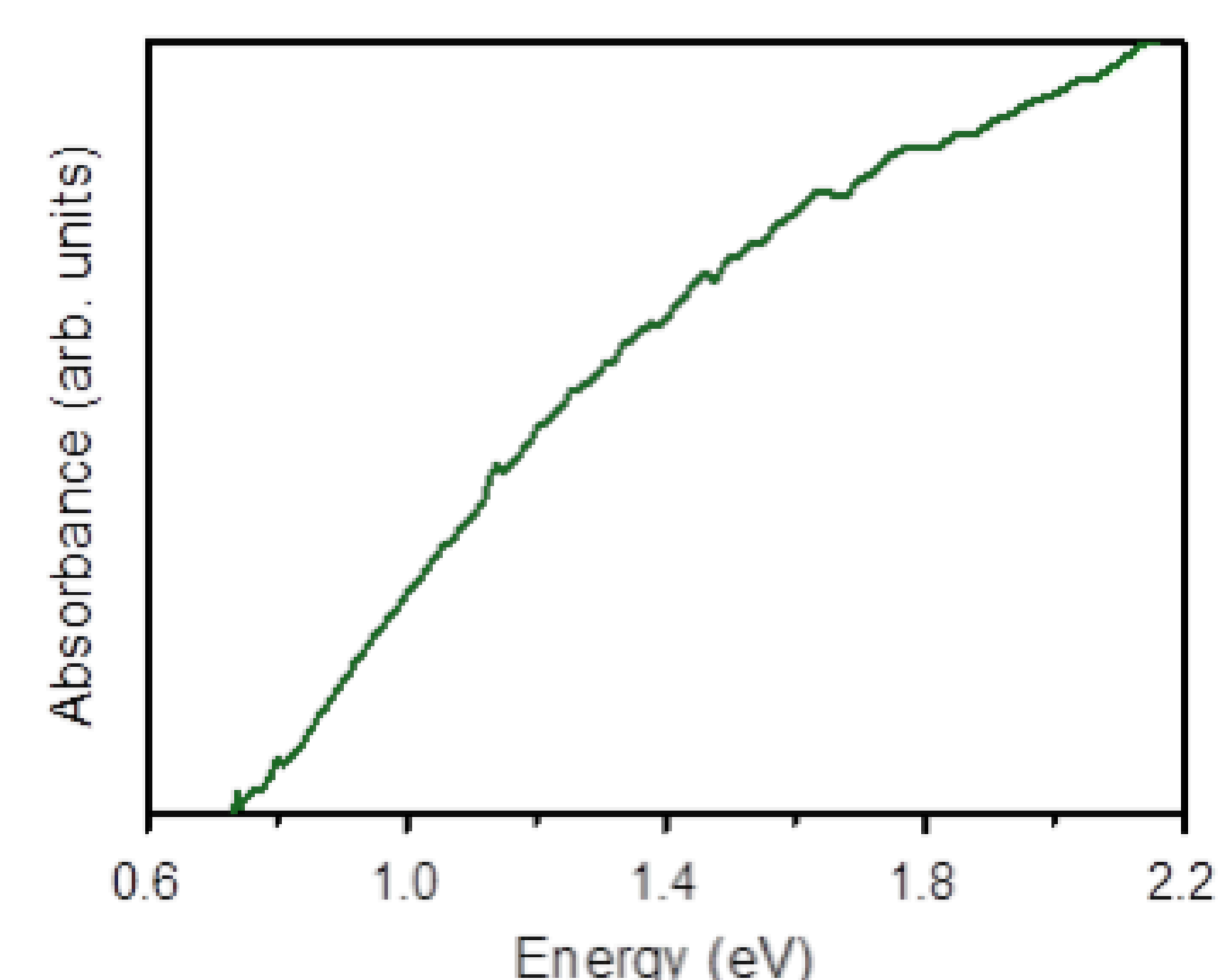
Results



$(H_2PDA)Pb_{2-2x}In^IAu^{III}Br_6$

$(H_2PDA)Pb_{2-2x}Au^IAu^{III}Br_6$

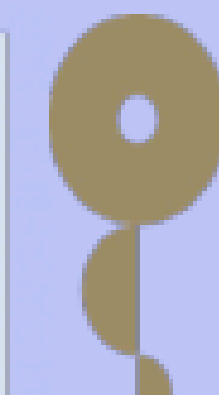
$(TMT)Pb_{2-2x}Au^IAu^{III}Br_6$



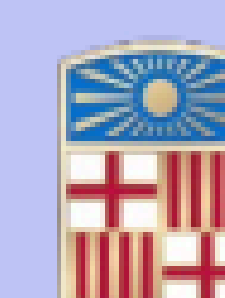
References:

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- Matheu, R.; Ke, F.; Breidenbach, et al. *Angew. Chem. Int. Ed.* **2022**, 61, 25, e202202911.

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