

Supplement:

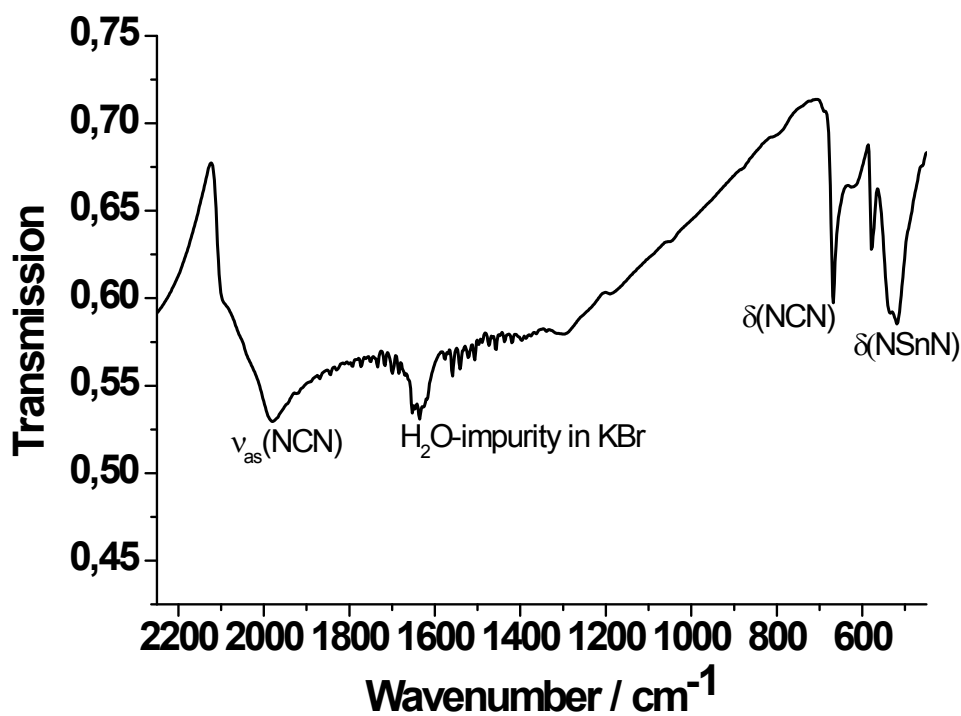


Figure S1. IR spectrum of $\text{Sn}_2\text{O}(\text{CN}_2)$.

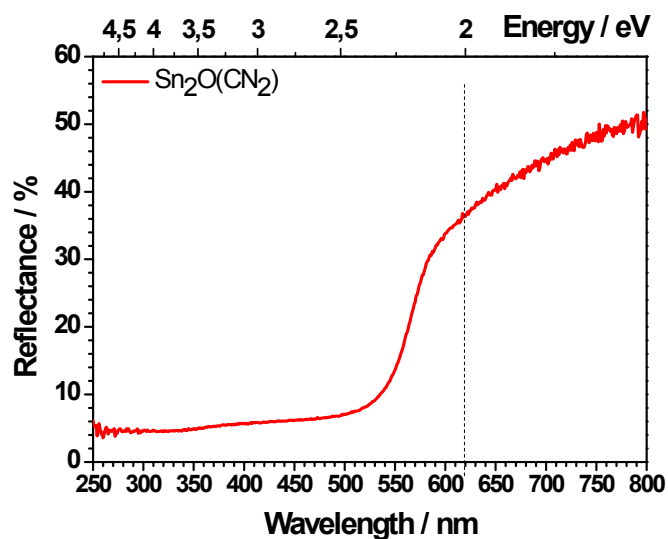


Figure S2. Reflection spectrum of $\text{Sn}_2\text{O}(\text{CN}_2)$ (black), $\text{Sn}(\text{CN}_2)$ (red) and Sn powder (blue) against BaSO_4 as a white standard.

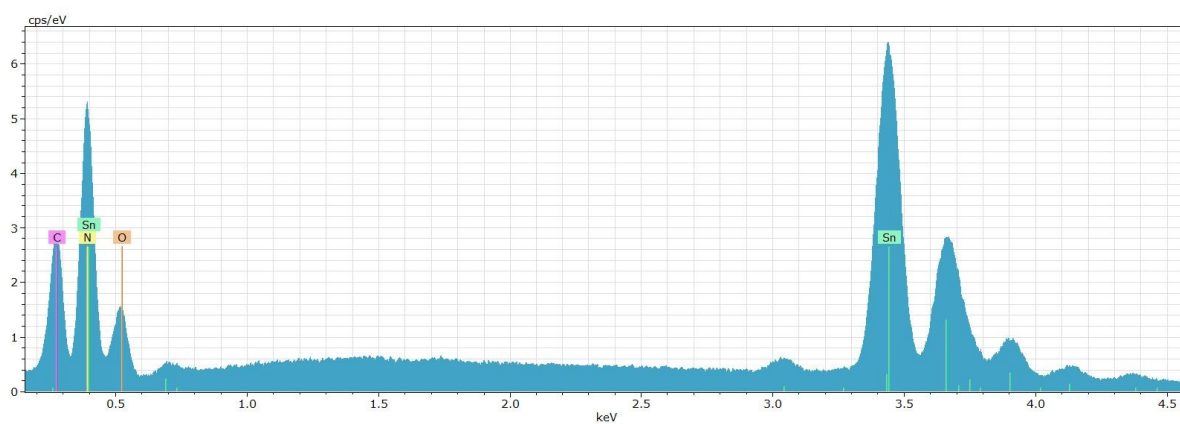


Figure S3. EDX spectrum of $\text{Sn}_2\text{O}(\text{CN}_2)$.

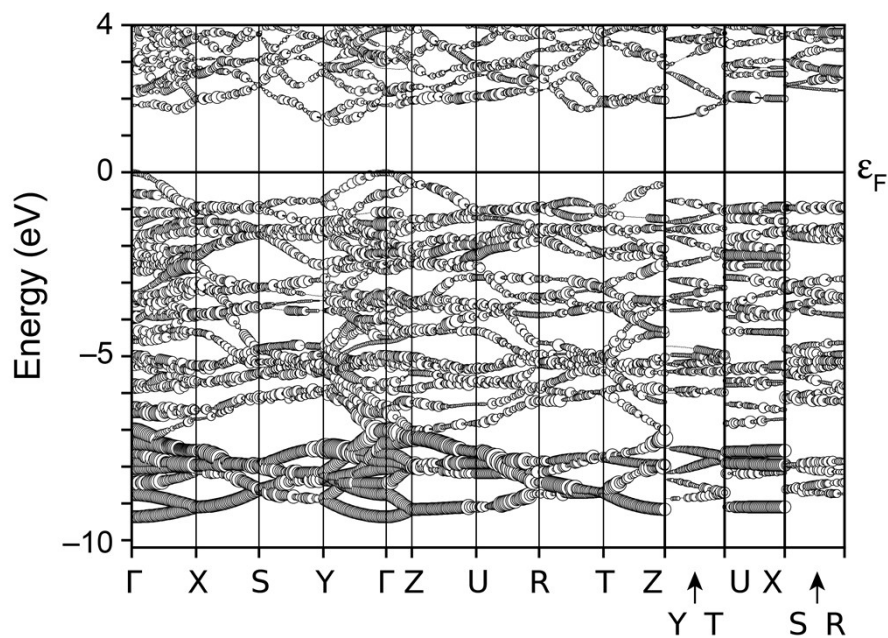


Figure S4. Fatband analysis of the contribution of the 5s orbital of Sn to the band structure of $\text{Sn}_2\text{O}(\text{CN}_2)$. Bigger points indicate stronger contribution.

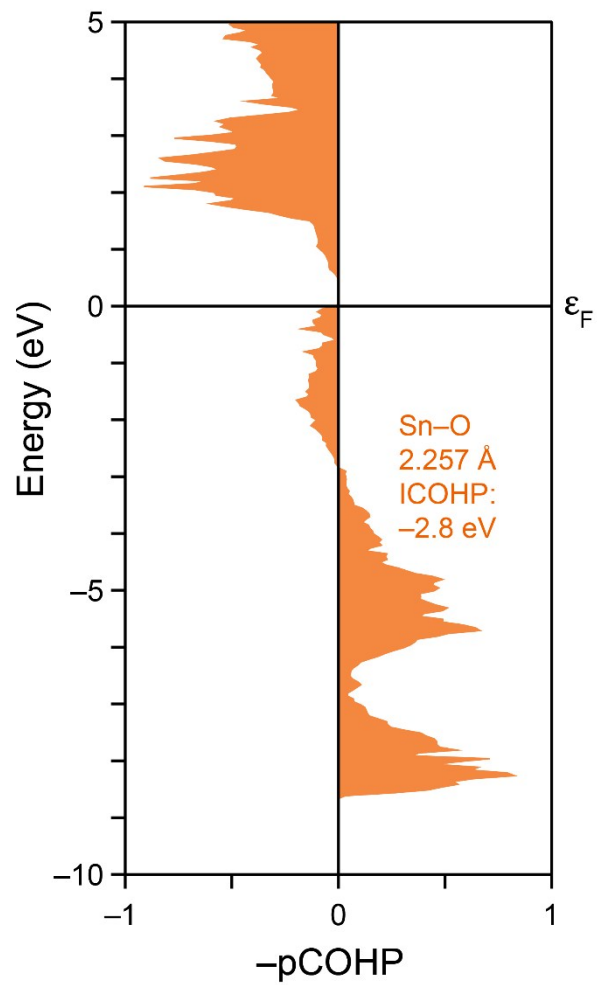


Figure S5. COHP curve of the Sn–O interactions in SnO.

Table S1. EDX- results

element	series	w.%Theo	w.%	σ w.%
Sn	L	80,91	70,68	1,80
N	K	9,55	13,88	0,54
C	K	4,09	7,86	0,31
O	K	5,45	7,57	0,34