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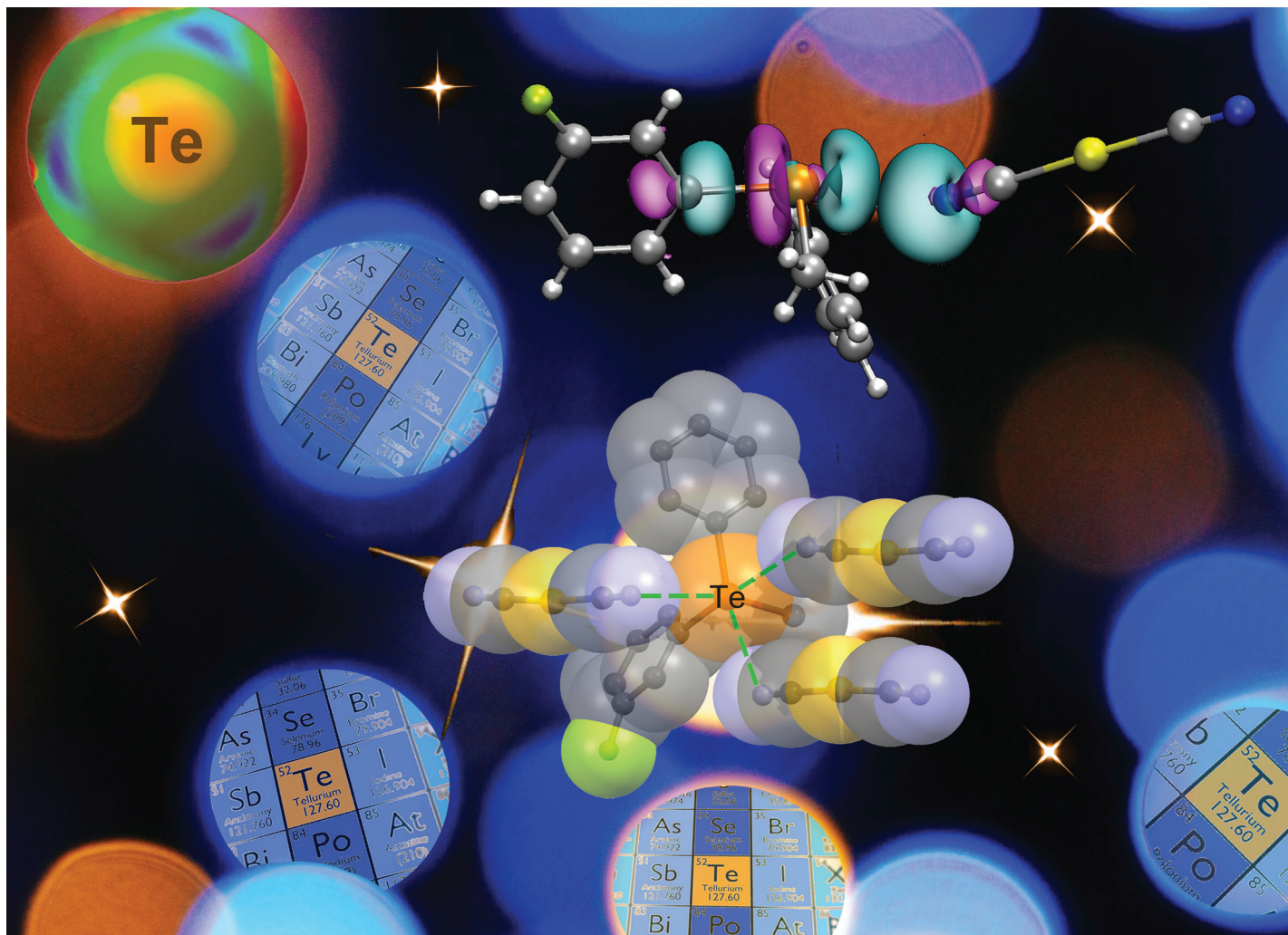
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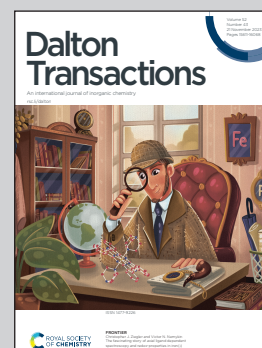


Highlighting collaborative research from Professors Antonio Frontera and Emanuele Priola, this study stems from the Chemistry Departments of the University of the Balearic Islands in Spain and the University of Torino in Italy.

Synthesis, X-ray characterization and DFT analysis of dicyanidoaurate telluronium salts: on the importance of charge assisted chalcogen bonds

This study presents the synthesis and X-ray characterization of two cyanidoaurate telluronium salts. In both, the tellurium atom forms three directional chalcogen bonds (ChBs) with neighboring anions. Using DFT and several computational tools, the presence of three σ -holes at the Te-atoms was identified, facilitating strong charge-assisted ChBs with counter-ions. Additionally, notable charge transfer from the anion's N-atom lone pair to the cation's $\sigma^*(\text{Te}-\text{C})$ orbital is observed.

As featured in:



See Alessia Giordana, Emanuele Priola, Antonio Frontera *et al.*, *Dalton Trans.*, 2023, **52**, 15688.