Submitted to *Cryst. Growth Des.*
Version 1 of October 2, 2012

Supporting Information

Molecular Networks Created by Charge-Assisted Hydrogen Bonding in Carboxylate Salts of a Bis(amidine)

Sharon Lie, Thierry Maris, Cédric Malveau, Daniel Beaudoin, Fatima Helzy, and James D. Wuest*

Département de Chimie, Université de Montréal, Montréal, Québec H3C 3J7 Canada

Contents **Page**

*Author to whom correspondence may be addressed. E-mail: *james.d.wuest@umontreal.ca*

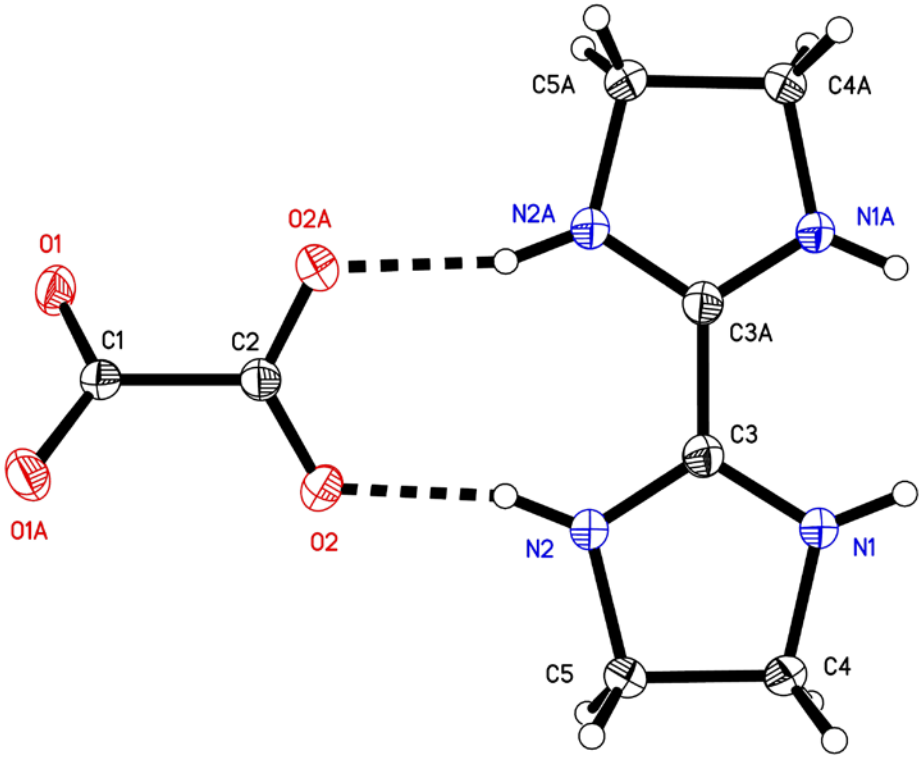

Figure S1. Thermal atomic displacement ellipsoid plot of the structure of crystals of (**BI**/H_2^{+2}) (**OA**$^{-2}$) grown from DMSO. The ellipsoids of non-hydrogen atoms are drawn at the 50% probability level, and hydrogen atoms are represented by a sphere of arbitrary size. Hydrogen bonds are shown as dotted lines. Atoms labelled with a suffix A are generated by the symmetry operation *-x+1, y, -z+3/2*.

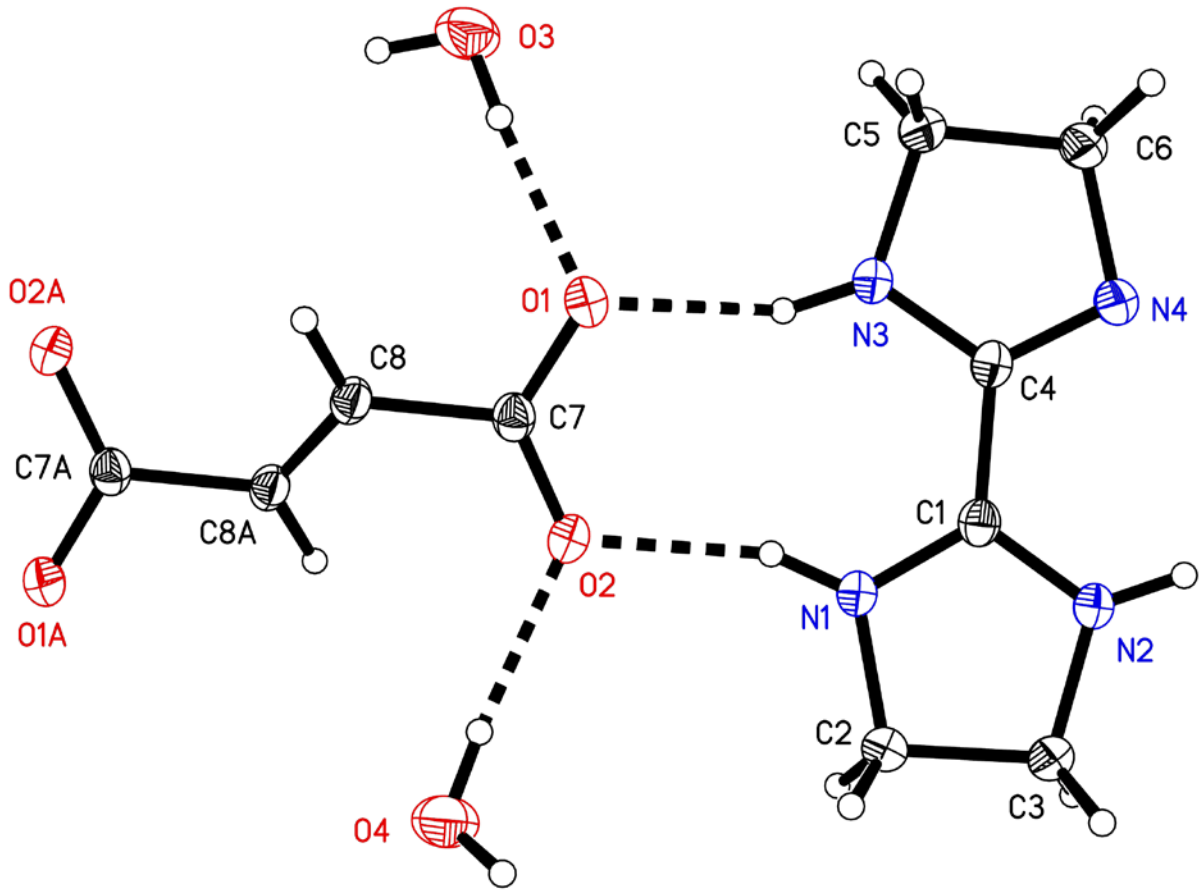

Figure S2. Thermal atomic displacement ellipsoid plot of the structure of crystals of (**BI**/H^+)$_2$ (**FA**$^{-2}$) • 4H_2O grown from DMSO. The ellipsoids of non-hydrogen atoms are drawn at the 50% probability level, and hydrogen atoms are represented by a sphere of arbitrary size. Hydrogen bonds are shown as dotted lines. Atoms labelled with a suffix A are generated by the symmetry operation *-x, -y+1, -z.*

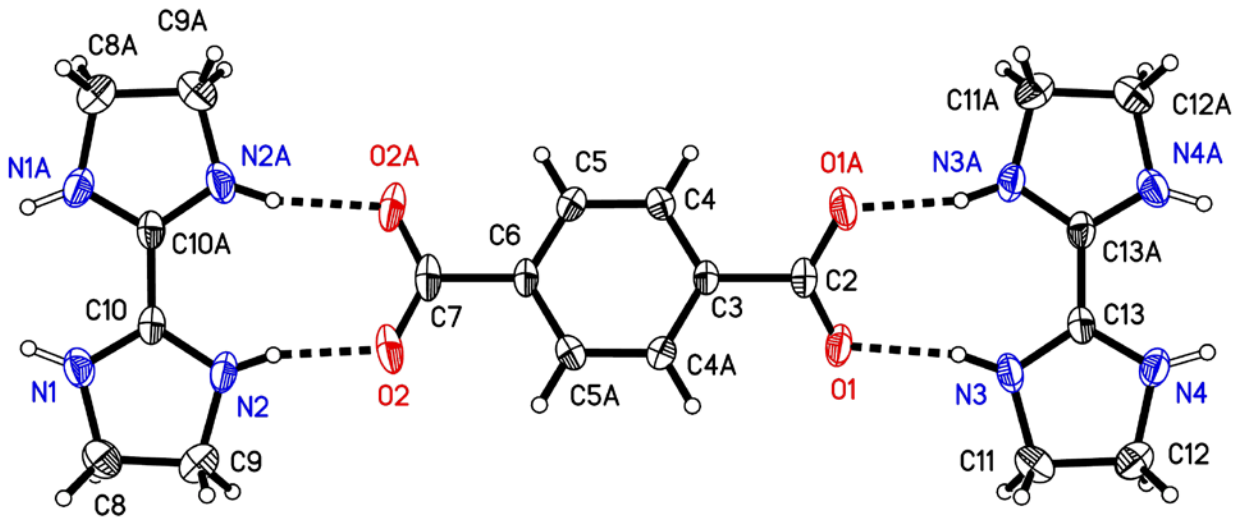

Figure S3. Thermal atomic displacement ellipsoid plot of the structure of crystals of (**BI**/H^+)$_2$ (**TA**$^{-2}$) grown from DMSO. The ellipsoids of non-hydrogen atoms are drawn at the 50% probability level, and hydrogen atoms are represented by a sphere of arbitrary size. Hydrogen bonds are shown as dotted lines. Atoms labelled with a suffix A are generated by the symmetry operation *-x, y, -z+1/2*.

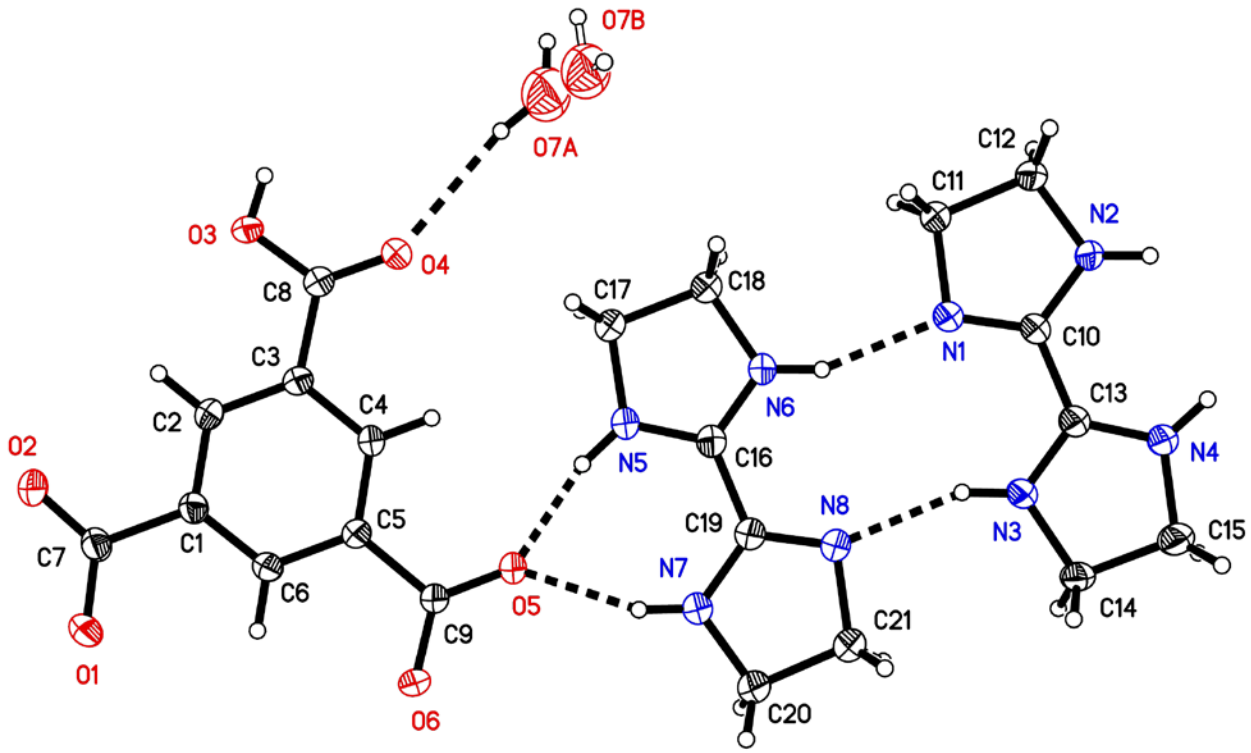

Figure S4. Thermal atomic displacement ellipsoid plot of the structure of crystals of (**BI**/H^{+})$_2$ (**TMA**/H^{-2}) • H_2O grown from DMSO. The ellipsoids of non-hydrogen atoms are drawn at the 50% probability level, and hydrogen atoms are represented by a sphere of arbitrary size. Hydrogen bonds are shown as dotted lines. The two positions for the statistically disordered water molecules are shown with labels O7A and O7B.

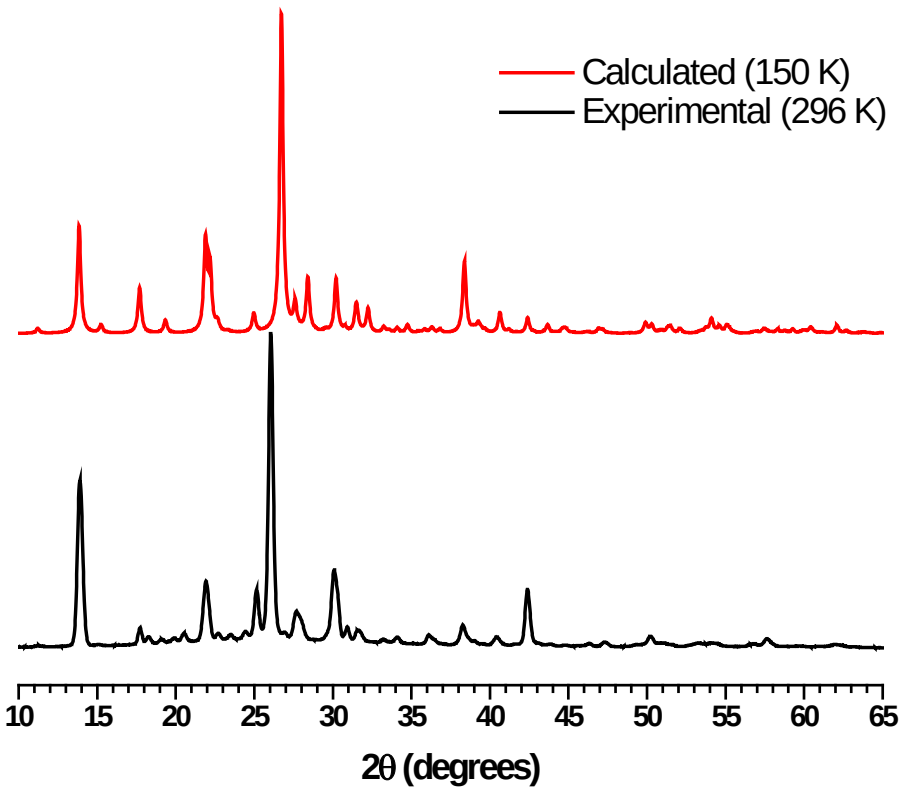

Figure S5. Comparison of calculated and experimental X-ray powder diffraction patterns for crystals of (**BI**/H_2^{+2}) (**OA**$^{-2}$) grown from DMSO.

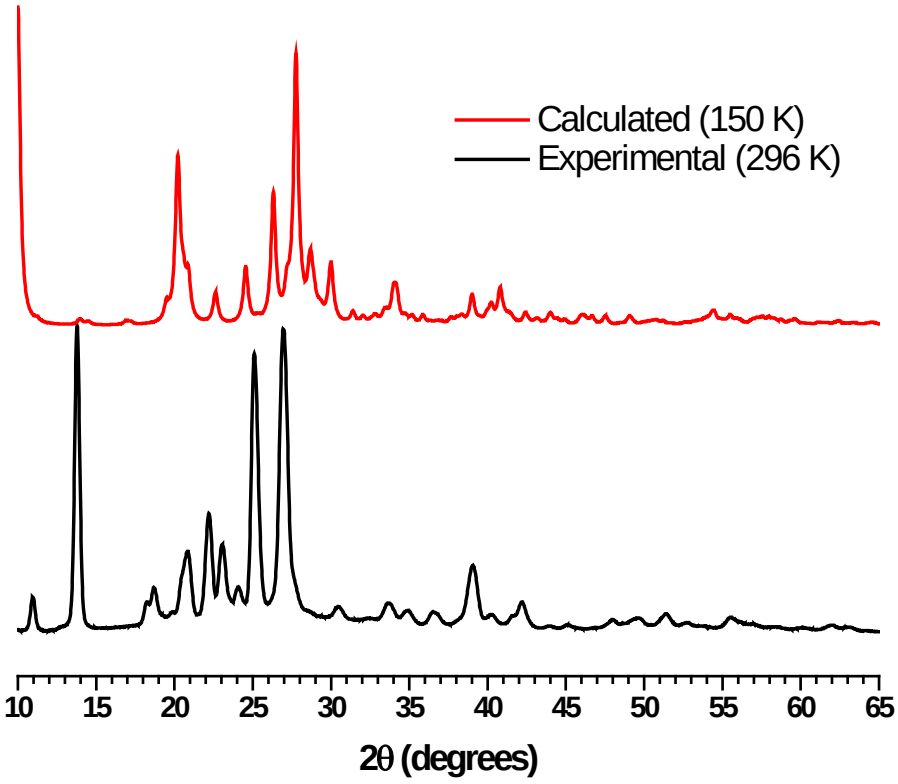

Figure S6. Comparison of calculated and experimental X-ray powder diffraction patterns for crystals of (**BI**/H^+)$_2$ (**FA**$^{-2}$) • 4H_2O grown from DMSO.

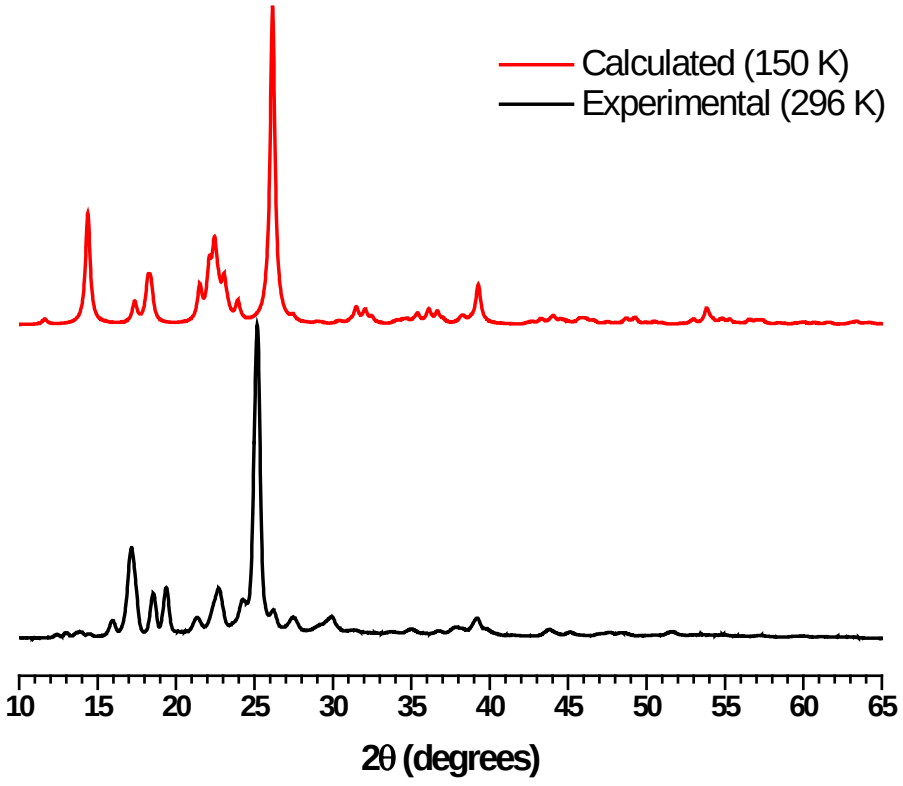

Figure S7. Comparison of calculated and experimental X-ray powder diffraction patterns for crystals of (**BI**/H^+)$_2$ (**TA**$^{-2}$) grown from DMSO.

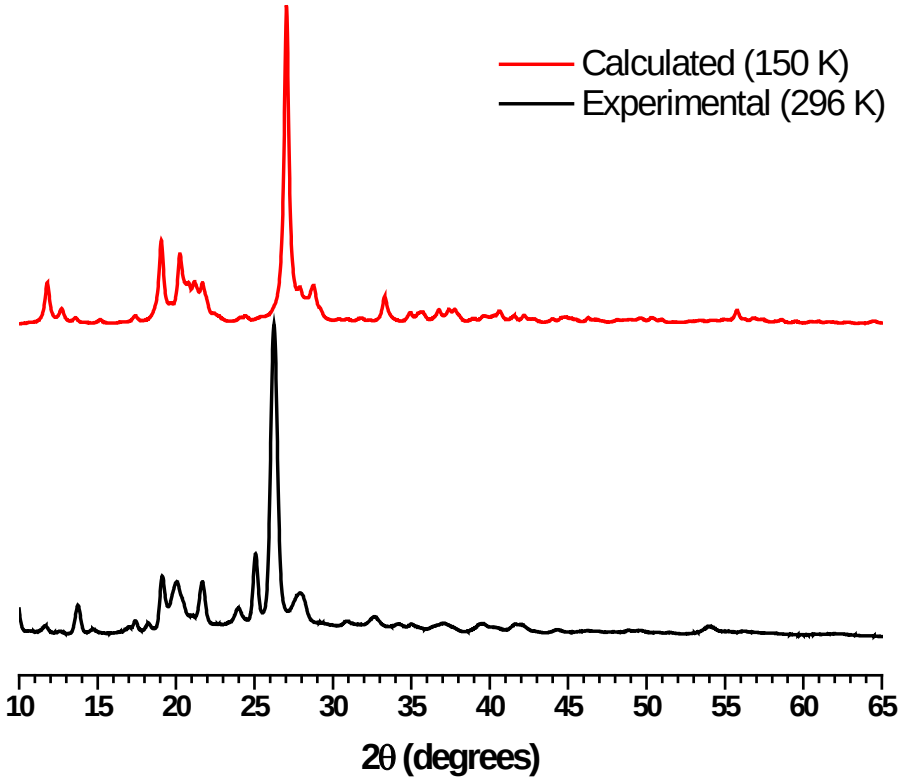

Figure S8. Comparison of calculated and experimental X-ray powder diffraction patterns for crystals of (**BI**/H^{+})$_2$ (**TMA**/H^{-2}) • H_2O grown from DMSO.