



STRUCTURAL SCIENCE  
CRYSTAL ENGINEERING  
MATERIALS

**Volume 74 (2018)**

**Supporting information for article:**

**Crystal structures of alkali metal (Group 1) citrate salts**

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Individual CIFs containing the DFT-optimized structures of the previously-reported Group 1b citrates are concatenated into one file, hw5048sup1.cif. The DFT-optimized structures of the new compounds are included in the references of Table 1.

$C_6H_5O_7$	CIF datablock
$Li_1H_2$	LIHCIT_DFT
$Li_1H_2(H_2O)_1$	PIGPUQ_P1_DFT
$Li_3(H_2O)_4$	FUQFUS_DFT
$Li_3(H_2O)_5$	CADJIA_DFT
$Na_1H_2$	NAHCIT_DFT
$Na_3(H_2O)_2$	Ramm048_UMOGAE_DFT
$Na_3(H_2O)_{5.5}$	FATTID_DFT
$K_2H_1$	ZZZQRO01_DFT
$K_3(H_2O)_1$	ZZZHVI01_DFT
$Rb_1H_2$	RBHCIT03_DFT
$H_3$	CITRAC10_DFT
$H_3(H_2O)_1$	CITARC_DFT

**Table S1** A MS Excel spreadsheet Group1\_distance\_angle\_torsion.xlsx, containing the citrate bond distances, angles, and torsion angles in the experimental and DFT-optimized structures. hw5048sup3.xlsx

**Table S2** A MS Excel spreadsheet Group1\_H-bonds.xlsx, containing the hydrogen bond geometries, overlap populations, and graph sets. hw5048sup4.xlsx

**Table S3** A MS Excel spreadsheet M-O\_DFT.xls, containing the metal-oxygen bond geometrical parameters and other related quantities. hw5048sup5.xls

**Table S4** A SigmaPlot notebook citrate\_conformations.jnb, containing the torsion angles and energies of low-energy conformations of citrate acid and various citrate anions. Individual sheets are also included as MS Excel spreadsheets citrate-1\_cen.xls, citrate-1\_end.xls, citrate-2.xls, and citrate-3.xls. hw5048sup6.jnb, hw5048sup7.xls, hw5048sup8.xls, hw5048sup9.xls hw5048sup10.xls

**Table S5** A SigmaPlot notebook Energy.jnb, containing the various energy-related quantities. The individual sheets are also included as MS Excel spreadsheets energy\_1.xls and energy\_2.xls. hw5048sup11.jnb, hw5048sup12.xls, hw5048sup13.xls.