



Figure 1S. Microphotographs of the studied crystals $\text{Cu}_2\text{Ga}_{1-x}\text{Mn}_x\text{BO}_5$ ($x = 0.05, 0.1, 0.15, 0.175$): the numbers indicate the scanned areas. The corresponding EDX spectra of different areas of the crystal samples are presented in the right column.

Table 1S. Fractional atomic coordinates and isotropic or equivalent isotropic displacement parameters (\AA^2).

Atom	<i>x</i>	<i>y</i>	<i>z</i>	$U_{\text{iso}}^*/U_{\text{eq}}$	Occ.
Cu₂Mn_{0.81}Ga_{0.19}BO₅					
Cu1	0.51834 (16)	0.72006 (5)	0.50777 (6)	0.0077 (2)	0.751 (15)
Mn1	0.51834 (16)	0.72006 (5)	0.50777 (6)	0.0077 (2)	0.199 (12)
Ga1	0.51834 (16)	0.72006 (5)	0.50777 (6)	0.0077 (2)	0.050 (3)
Cu2	0.5000	0.5000	1.0000	0.0076 (3)	0.89 (3)
Mn2	0.5000	0.5000	1.0000	0.0076 (3)	0.09 (2)
Ga2	0.5000	0.5000	1.0000	0.0076 (3)	0.023 (5)
Cu3	0.0000	0.5000	0.5000	0.0090 (3)	0.59 (3)
Mn3	0.0000	0.5000	0.5000	0.0090 (3)	0.33 (2)
Ga3	0.0000	0.5000	0.5000	0.0090 (3)	0.082 (5)
Cu4	0.98740 (18)	0.61996 (5)	0.77052 (6)	0.0090 (2)	0.507 (18)
Mn4	0.98740 (18)	0.61996 (5)	0.77052 (6)	0.0090 (2)	0.395 (14)
Ga4	0.98740 (18)	0.61996 (5)	0.77052 (6)	0.0090 (2)	0.099 (4)
B	0.9921 (16)	0.8635 (4)	0.7375 (6)	0.0104 (9)	1
O1	0.4820 (10)	0.6441 (2)	0.9034 (4)	0.0109 (6)	1
O2	1.0601 (10)	0.4629 (3)	0.8399 (3)	0.0112 (6)	1
O3	0.9858 (10)	0.7645 (3)	0.6643 (3)	0.0109 (6)	1
O4	0.0522 (10)	0.6357 (2)	0.3824 (4)	0.0107 (6)	1
O5	0.5983 (11)	0.5798 (3)	0.6093 (4)	0.0134 (7)	1
Cu₂Mn_{0.85}Ga_{0.15}BO₅					
Cu1	0.44439 (15)	0.98853 (5)	0.22128 (4)	0.0072 (2)	0.836 (13)
Mn1	0.44439 (15)	0.98853 (5)	0.22128 (4)	0.0072 (2)	0.139 (11)
Ga1	0.44439 (15)	0.98853 (5)	0.22128 (4)	0.0072 (2)	0.025 (2)
Cu2	-0.05732 (16)	0.73256 (5)	0.12092 (4)	0.0068 (2)	0.244 (16)
Mn2	-0.05732 (16)	0.73256 (5)	0.12092 (4)	0.0068 (2)	0.643 (13)
Ga2	-0.05732 (16)	0.73256 (5)	0.12092 (4)	0.0068 (2)	0.113 (2)
Cu3	-0.5000	0.5000	0.0000	0.0068 (2)	0.88 (2)
Mn3	-0.5000	0.5000	0.0000	0.0068 (2)	0.099 (19)
Ga3	-0.5000	0.5000	0.0000	0.0068 (2)	0.017 (3)
Cu4	0.0000	0.0000	0.0000	0.0090 (3)	0.95 (2)
Mn4	0.0000	0.0000	0.0000	0.0090 (3)	0.05 (2)
Ga4	0.0000	0.0000	0.0000	0.0090 (3)	0.008 (4)
B1	0.0926 (12)	0.2645 (4)	0.1341 (3)	0.0058 (7)	1
O1	0.4984 (8)	0.0956 (3)	0.3555 (2)	0.0098 (5)	1
O2	0.3615 (9)	0.8737 (3)	0.0873 (2)	0.0099 (5)	1
O3	0.0321 (8)	0.1191 (3)	0.1345 (2)	0.0098 (5)	1
O4	-0.1067 (8)	0.6596 (3)	-0.0365 (2)	0.0090 (5)	1
O5	0.8695 (9)	0.8340 (3)	0.2660 (2)	0.0093 (5)	1