Correction to *J. Electron. Mater.*, March 2004, vol. 33, pp. 171–180.

One author's name was omitted and another duplicated in the by-line. The correct version should read:

Intermetallic Compounds Formed during the Reflow and Aging of Sn-3.8Ag-0.7Cu and Sn-20In-2Ag-0.5Cu Solder Ball Grid Array Packages

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After reflow of Sn-3.8Ag-0.7Cu and Sn-20In-2Ag-0.5Cu solder balls on Au/Ni surface finishes in ball grid array (BGA) packages, scallop-shaped intermetallic compounds $(\text{Cu}_{0.70}\text{Ni}_{0.28}\text{Au}_{0.02})_6\text{Sn}_5$ (IM1a) and $(\text{Cu}_{0.76}\text{Ni}_{0.24})_6(\text{Sn}_{0.86}\text{In}_{0.14})_5$ (IM1b), respectively, appear at the interfaces. Aging at 100°C and 150°C for Sn-3.8Ag-0.7Cu results in the formation of a new intermetallic phase $(\text{Cu}_{0.70}\text{Ni}_{0.14}\text{Au}_{0.16})_6\text{Sn}_5$ (IM2a) ahead of the former IM1a intermetallics. The growth of the newly appeared intermetallic compound, IM2a, is governed by a parabolic relation with an increase in aging time, with a slight diminution of the former IM1a intermetallics. After prolonged aging at 150°C, the IM2a intermetallics partially spall off and float into the solder matrix. Throughout the aging of Sn-20In-2Ag-0.5Cu solder joints at 75°C and 115°C, partial spalling of the IM1b interfacial intermetallics induces a very slow increase in thickness. During aging at 115°C for 700 h through 1,000 h, the spalled IM1b intermetallics in the solder matrix migrate back to the interfaces and join with the IM1b interfacial intermetallics to react with the Ni layers of the Au/Ni surface finishes, resulting in the formation and rapid growth of a new $(\text{Ni}_{0.85}\text{Cu}_{0.15})(\text{Sn}_{0.71}\text{In}_{0.29})_2$ intermetallic layer (IM2b). From ball shear tests, the strengths of the Sn-3.8Ag-0.7Cu and Sn-20In-2Ag-0.5Cu solder joints after reflow are ascertained to be 10.4 N and 5.4 N, respectively, which drop to lower values after aging.