1056-17-1172 **Murray Bremner**, **Ivan Correa** and **Irvin Hentzel*** (`hentzel@iastate.edu`), Dept. of Mathematics, Ames, IA 50011-2064, and **Luiz Peresi**. *Special Bol Identities.* Preliminary report.

A Bol algebra is defined in terms of a binary product [a,b] and a ternary product <a,b,c>. These five identities are assumed to hold.

[a,b]+[b,a] = 0

<a,b,c>+<b,a,c> = 0

<a,b,c>+<b,c,a>+<c,a,b> = 0

<a,b,<c,d,e>> − <<a,b,c>,d,e> - <c,<a,b,d>,e> - <c,d,<a,b,e>>= 0

[<a,b,c>,d]-[<a,b,d>,c]+<c,d,[a,b]>-<a,b,[c,d]>+[[a,b],[c,d]] = 0

The Special Bol algebra starts with a right alternative algebra and defines [a,b] = ab-ba and <a,b,c> = J(b,c,a) = (boc)oa-bo(coa) where xoy = xy+yx is the symmetric product in the right alternative algebra and J(b,c,a) is the associator computed using the symmetric product.

There are 13 minimal identities that hold in the Special Bol algebra that do not hold in the free bol algebra. They are distributed across 6 representations as follows: 1 in (62); 4 in (53); 1 in (521); 2 in (44); 4 in (431); 1 in (3311); One of the two identities in tableau (44) is expressible with 73 terms. We are still working on methods to express the other identities by hundreds of terms rather than by thousands of terms. (Received September 21, 2009)