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Hasan Coskun* (hasan_coskun@tamu-commerce.edu), 2600 South Neal St, PO Box 3011, Commerce, TX 75429. *Multiple Andrews-Gordon Identities associated to root systems.*

A BC_n generalization of the weak Bailey Lemma will be given. Several multiple summation and transformation formulas associated with the root system BC_n will be obtained as applications of the lemma. An extension of the BC_n weak Bailey Lemma and some other auxiliary results will be used to compute the full version of the multiple Andrews–Gordon identities in terms of determinants of theta functions. Finally, combinatorial significance of these results will be presented. (Received March 09, 2008)