GERALD CLIFF, University of Alberta
PBW, canonical, and crystal bases for quantized enveloping algebras

Lusztig has defined PBW bases P for the minus part of the quantized enveloping algebra of a semi-simple complex Lie algebra. It is known that these PBW bases have a crystal structure in the sense of Kashiwara, but it is not known, in general, how to define Kashiwara's crystal operators on P. We show how this can be done for types A, B, C, and D, using tableaux of Kashiwara-Nakashima. (In type A, these are the usual semi-standard Young tableaux.) This is new for types B and C.