1056-17-464   **Alexander Kleshchev*** (`klesh@uoregon.edu`), Department of Mathematics, University of Oregon, Eugene, OR 97403, and **Arun Ram**, Department of Mathematics and Statistics, The University of Melbourne, Parkville, VIC 3010, Australia. *Representations of Khovanov-Lauda-Rouquier algebras and combinatorics of Lyndon words.*

We construct irreducible representations of affine Khovanov-Lauda-Rouquier algebras of arbitrary finite type. The irreducible representations arise as simple heads of appropriate induced modules, and thus our construction is similar to that of Bernstein and Zelevinsky for affine Hecke algebras of type A. The highest weights of irreducible modules are given by the so-called good words, and the highest weights of the 'cuspidal modules' are given by the good Lyndon words. In a sense, this has been predicted by Leclerc. (Received September 08, 2009)