Ion Charge State Increase 1+ -> n+ for the Acceleration of Alkali and Metallic Radioactive Ion Beams, J-L. BOULY, J-F. BRUANDET, N. CHAUVIN, J-C. CURDY, R. GELLER, T. LAMY, P. SOLE, P. SORTAIS, J-L. VIEUX-ROCHAS, ISN, Grenoble - The forward injection of a 1+ ion beam into an Electron Cyclotron Resonance Ion Source (ECRIS) is an efficient way to obtain n+ radioactive ion beams suitable to a particle acceleration. A hollow cathode source and a thermoionization source have been used to produce respectively 1+ metallic ions (Zn) and 1+ alkali ions (Rb). Noticeable results have been obtained for the 1+ -> n+ charge conversion efficiency when injecting the 1+ beam into a n+ MINIMAFIOS type ECRIS. Due to the high mass of the radioactive ions, it is necessary, when using a cyclotron for acceleration, to reach high charge states to perform the accelerator adaptation. For that purpose charge state distributions have been measured for Zn and Rb elements when varying the plasma density of the MINIMAFIOS source. Good efficiency yields (3.5% for Zn1+ -> Zn9+ , 5% for Rb1+ -> Rb15+) with suitable release time (from 50 to 500 msec) have been currently obtained. The variation of the efficiency yield with respect to the energy of the 1+ primary beam is measured for different gases and pressures. The impact of these results on the ability to produce valuable accelerated radioactive ion beams is discussed.