Abstract： Pressure expanding treatment is an effective method for improving the piezoelect ric activity of cellular PP films. In this work, the character of trap-level dis tribution for positively corona charged cellular PP films and the influence of t he pressure expanding treatment on its charge stability and charge transportatio n have been studied by means of thermal pulse technique, surface potential decay measurements, SEM and TSD spectrum analyses, etc. The results point out that th ere are three kinds of traps with different energy values in the range of middl e energy level for the cellular PP films, i.e. most of the deep traps and the shallow traps in the bulk, and most of the traps with middle energy values near the free surface. The pressure expanding treatment changes the state of traps a nd also, to a certain extent, reduces the charge storage stability of the cellul ar PP films, but has not impact on its charge transportation rule, in which the slow retrapping effect is dominant.