

ABSTRACT

INK JET RECORDING APPARATUS AND METHOD OF CONTROLLING THEREOF

An ink jet recording apparatus comprising: an ink jet recording head for sucking an ink into a pressure chamber and jetting an ink droplet from a nozzle opening by expanding and contracting the pressure chamber by a piezoelectric vibration element; the pressure chamber being formed of a nozzle plate and a vibration plate; and a signal generating device for generating signals. The signals includes a first signal for contracting the piezoelectric vibration element at a predetermined speed to suck the ink into the pressure chamber, a second signal for starting an extension process of the piezoelectric vibration element to splash the ink droplet from the nozzle opening by contracting the pressure chamber, a third signal for interrupting the extension process of the piezoelectric vibration element at least once while the extension process is still being performed and a fourth signal for resuming the extension process of the piezoelectric vibration element again after a predetermined period has elapsed.

Figure. 5

Figure. 6