

Abstract.

DC magnetic relaxation measurements in $\text{HgBa}_2\text{CuO}_4$ single crystals are analyzed nearby the fishtail line. It is found that in this case, it is not necessary to introduce any crossover from plastic creep to elastic creep models at the fishtail line. This type of fishtail effect comes only from a competition between a critical current at low temperature which increases *versus* field and the activation energy, which decreases *versus* field. According to the doping level of the compound, the fishtail effect can be observed or not, without any correlation with a vortex phase transition. Moreover, in this type of fishtail effect, there is no history effects as recently observed in YBaCu_2O_3 by the partial magnetization loop technique, suggesting that the transition from plastic to elastic flow is here hidden by the disorder of these materials.