Tunneling spectroscopy of e-doped cuprates LEI SHAN, YAN HUANG, YONG-LEI WANG, National Laboratory for Superconductivity, IOP, CAS, SHI-LIANG LI, JUN ZHAO, PENG-CHENG DAI, University of Tennessee and Oak Ridge National Laboratory, TN, HAI-HU WEN, National Laboratory for Superconductivity, IOP, CAS, NATIONAL LABORATORY FOR SUPERCONDUCTIVITY, IOP, CAS TEAM, UNIVERSITY OF TENNESSEE AND OAK RIDGE NATIONAL LABORATORY, TN COLLABORATION — Point-contact tunneling spectra were measured on electron-doped high-$T_c$ cuprates (NCCO and PLCCO). By phenomenological analysis, we found that the superconducting gap ($\Delta_{sc}$) definitely decreases towards zero in an almost universal law with continuously increasing temperature or magnetic field. At the fields above $H_{c2}$, a clear “pseudogap” was opened indicated by the obvious spectral losing below a characteristic energy scale ($\Delta_{pg}$) which is much larger than $\Delta_{sc}$. All the phenomena observed here seem to be crucial to distinguish the mechanism of HTSC and need to be extensively studied on more doping levels.