Xie, Yaxun; Zeng, Jing; Chen, Linsong; Wu, Kaisu

A class of Newton iterative schemes without derivatives. (Chinese. English summary)


Summary: In this paper, a new Newtonian iterative format without derivative is constructed. By establishing the error equation, it is proved that the iterative format is at least 4 order convergence, and the corresponding parameters are obtained.

MSC:

65H04 Numerical computation of roots of polynomial equations
65H05 Numerical computation of solutions to single equations

Keywords:

nonlinear equation; Newton iteration schemes; convergence order; error equation