Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISSN 1083-0464
Issue 2, December 2003, pp. 60–84.
Submitted: March 31, 2003. Published: December 31 2003.

RADIAL MINIMIZER OF A P-GINZBURG-LANDAU TYPE FUNCTIONAL WITH NORMAL IMPURITY INCLUSION

Yutian Lei

Abstract. The author proves the $W^{1,p}$ and $C^{1,\alpha}$ convergence of the radial minimizers u_ε of an Ginzburg-Landau type functional as $\varepsilon \to 0$. The zeros of the radial minimizer are located and the convergent rate of the module of the minimizer is estimated.

A.M.S. (MOS) Subject Classification Codes. 35B25, 35J70, 49K20, 58G18

Key Words and Phrases. Radial minimizer, Asymptotic behavior, p-Ginzburg-Landau

Department of Mathematics, Nanjing Normal University, Nanjing, P.R.China
E-Mail Address: lythxl@163.com

Typeset by $\mathcal{A}_{\mathcal{M}}\mathcal{S}$-TEX