Erratum

Calculation of the Surface Parallel Critical Field for Clean Superconducting Films

GERHART LÜDERS

Z. Physik 209, 219 (1968)

The signs in Eq. (56) are incorrect. This equation should read

$$B = -p \frac{45\zeta(4)}{224\zeta(3)} \eta [(\xi^2 u^2)_{\xi_l} + (\xi^2 u^2)_{\xi_r}] - \frac{31\zeta(5)}{70\zeta(3)} \eta^2 [(\xi u^2)_{\xi_l} - (\xi u^2)_{\xi_r}] + \cdots.$$

As a consequence, Eq. (69) is changed into

$$2\frac{d\eta}{\eta} - \frac{A(\varepsilon=1)}{\tau} = \begin{cases} \frac{93\zeta(5)}{70\zeta(3)} \left(\frac{\zeta_0(T)}{d}\right)^2 + \cdots & (p=0), \\ p\frac{135\zeta(4)}{224\zeta(3)} \frac{\zeta_0(T)}{d} + \cdots & (p>0), \end{cases}$$

where we have dropped the temperature dependent terms which, in a consistent approximation, should not have been written down. Finally, Eq. (12) is to be replaced by

$$\frac{H_{C\parallel}(T)}{H_{C\,2}(T)} \frac{d}{\sqrt{7\zeta(3)}\,\xi_{d}(T)} = 1 + \begin{cases} \frac{93\zeta(5)}{70\zeta(3)} \left(\frac{\xi_{0}(T)}{d}\right)^{2} + \cdots & (p=0), \\ p \frac{135\zeta(4)}{224\zeta(3)} \frac{\xi_{0}(T)}{d} + \cdots & (p>0). \end{cases}$$

I wish to thank K.D. USADEL, who, by the results of his own work¹, suggested another check of my previous results. H.J. SOMMERS' assistance in the calculations is gratefully acknowledged.

¹ USADEL, K.D.: Z. Physik, to be published.

Prof. Dr. G. LÜDERS Institut für Theoretische Physik der Universität 3400 Göttingen, Bunsenstraße 9