

Erratum: "Evidence for field enhanced electron capture by EL2 centers in semi-insulating GaAs and the effect on GaAs radiation detectors" [J. Appl. Phys. 75, 7910 (1994)]

Douglas S. McGregor,^{a)} Ronald A. Rojas, and Glenn F. Knoll
Department of Nuclear Engineering, University of Michigan, Ann Arbor, Michigan 48109

Fred L. Terry, Jr. and Jack East
Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor, Michigan 48109

Yosef Eisen
Soreq Nuclear Research Center, Israel Atomic Energy Commission, Yavne 70600, Israel

A typographic error appeared in Eq. (5) on page 7911 which should correctly read

$$N_{DD}^+ \approx \frac{N_{DD}}{1 + n\sigma_n v_e / e_n}$$

We also gratefully acknowledge the assistance of Dr. David C. Look at Wright State University for bringing to our attention the proper degeneracy factors for the Fermi functions in Eqs. (4), (6), and (7). The degeneracy factors should be represented as 2 instead of 1/2. A degeneracy factor of 1/2 is expected for a single donor level in GaAs. The empty state has degeneracy of $g_0=1$ and the singly filled state has degeneracy of $g_1=2$, hence the ratio $g_0/g_1=1/2$. However, the EL2 deep donor defect is a double donor and the doubly filled state degeneracy is $g_2=1$. Since we are concerned with the (0/+) state, the degeneracy factors in Eqs. (4), (6), and (7) should be $g_1/g_2=2$. The change in degeneracy factors does not affect the calculated results and does not compromise the concept or proposed model. However, in order to accurately describe the Fermi functions, we feel we should bring this correction to our readers' attention.

^{a)}Presently located at Sandia National Laboratories, Livermore CA 94551-0969.