ERRATUM

Activation Efficiencies for a Standard Qualification Implant in GaAs Annealed by a Rapid Thermal Process

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As kindly pointed out to us by Steve Brierley, an error exists in the paper "Activation Efficiencies for a Standard Qualification Implant in GaAs Annealed by a Rapid Thermal Process", by J. O. Crist and D. C. Look. Specifically, we stated in the paper that the peak carrier concentration, for $2 \times 10^{12} \text{ cm}^{-2}$, 150 keV Si²⁹ ions implanted into GaAs at an angle of 11° off the (100) direction (toward the (110)), is $1.27 \times 10^{17} \text{ cm}^{-3}$ for a simulated Gaussian profile, whereas it is actually $0.943 \times 10^{17} \text{ cm}^{-3}$, according to the implant simulation code we ourselves use. (The origin of our error is unknown at this time.) Since we used this theoretical peak carrier concentration

to determine C-V activation efficiencies, the efficiencies given in the paper are too low. The old and new values, for samples annealed at various temperatures by RTA, are given below and again compared with the Hall result:

Sample	Peak C-V (old)	Peak C-V (new)	Hall
1	54%	72%	90%
2	60	81	91
3	57	76	90
4	65	88	70
5	55	74	91

The conclusion in the paper, that the C-V results are significantly lower and more scattered than the Hall results (cf. samples 1, 2, 3, and 5), still holds. However, the magnitudes of the differences are diminished, and for this we apologize. Note that for sample 4, the new efficiency value is much higher than the Hall value, but this fact is contradicted by the *integrated* C-V, as shown in Table I of our original paper. Thus, we still claim that our Hall results are more reliable than our C-V results, realizing, of course, that other groups may have better success with C-V.

Again, we wish to thank Steve Brierley for pointing out our error, and we apologize to anyone who was misled. However, we stand by the conclusions given in the original paper.