we find that $u_L = 0.61$ for $k = 0.040 - 0.041$, for the lattice sizes considered. This is certainly consistent with an Ising-like critical point at $k_c = 0.0406$, but we must regard this result as preliminary since we have been unable to obtain useful data on u_L for larger lattice sizes.

IV. SUMMARY

We have performed mean-field and Monte Carlo studies of the Ziff-Gulari-Barshad model incorporating desorption of CO. A general argument leads us to expect that the critical point for CO "poisoning" belongs to the Ising universality class. The critical behavior of the reaction rate is found, in general, to involve the Ising exponent δ. Analysis of simulation results using finite-size scaling yields a correlation-length exponent $\nu = 1$, consistent with Ising-like critical behavior.

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