

# Augmented Space Recursion For Partially Disordered Systems

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Off-stoichiometric alloys exhibit partial disorder, in the sense that only some of the sublattices of the stoichiometric ordered alloy become disordered. This paper puts forward a generalization of the augmented space recursion (ASR) introduced earlier by [1] for systems with many atoms per unit cell. In order to justify the convergence properties of ASR we have studied the convergence of various moments of local density of states and other physical quantities like Fermi energy and band energy of some ordered systems. We have also looked at the convergence of the magnetic moment of Ni, which is very sensitive to numerical approximations towards the  $k$ -space value  $0.6 \mu_B$  with the number of recursion steps prior to termination.

## Reference

- [1]. Mookerjee A., JPC **6** L205 (1973)