

A REDUCED QUASI-EQUILIBRIUM NETWORK FOR SILICON BURNING¹

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Silicon burning and explosive silicon burning are the last and important stages just before and during the explosion of a type II supernovae. It was always a goal to perform complete hydrodynamic simulations of such an event. In order to save as much time as possible, we developed a scheme for the calculation of nuclear reactions assuming quasi-equilibrium. The reduced code is faster by a factor of 3 up to 10 than a full network.

¹Abstract of paper to be published in Proceedings of Nuclei in the Cosmos V, Volos, Greece, July 6–11, 1998 (Ed. Frontiers, Paris, in press).

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