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Sommario/riassunto	Reduced Activation Ferritic/Martensitic (RAFM) steels are first candidate structural materials in future fusion technology. In this work a physically based model using Rate Theory is developed to describe nucleation and growth of helium bubbles in neutron irradiated RAFM steels. Several modifications of the basic diffusion limited model are presented allowing a comprehensive view of clustering effects and their influence on expected helium bubble size distributions.