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**Swelling of UMo dispersion fuel dependence on Mo content and
fission rate**

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ABSTRACT

Detailed examination of post-irradiation microstructures of U-10wt%Mo fuel for monolithic fuel design and U-7wt%Mo fuel for dispersion fuel have shown a relatively weak dependence of U-Mo swelling on Mo content. It appears that the main difference between the two fuel alloys is the lower fission density at which recrystallization occurs in the case of 7wt% Mo. This lower fission density (burnup) leads to a somewhat enhanced fission gas bubble development for the lower Mo fuel alloy. There is no evidence of a fission rate effect on the swelling of either fuel alloy. The apparent fission rate effect on fuel plate swelling is due to the formation of relatively large fission gas pores in the U-Mo/Al inter-diffusion (IL) phase in dispersion fuel at high fission rate (high power density) locations.