Figure 4A. Evolution of topography over 400Ma for situation in which lower crustal flow occurs. Viscosity varies exponentially with depth; temperature at base of crust varies laterally (see text). Rheology is dry diabase (Mackwell et al. 1995). Initial conditions are for Mars at 4 Ga b.p., assuming 0.9 x terrestrial radiogenic concentrations and crustal concentration factor of 4. Topographic contrasts are assumed to be supported isostatically. Dashed line shows present day topography across crustal dichotomy (Frey et al. 1998). Average crustal thickness is 100km.

4B. As for Fig. 4A, except that average crustal thickness is 80km. Note that decay of topography is much less rapid.