The figure shows a simulation of the effect of altering $\tau_M$ on relaxivity at four different magnetic fields for a gadolinium chelate with restricted rotation. It is apparent that as the magnetic field increases so the maximum relaxivity is achieved with increasingly short $\tau_M$ values. A value of $\tau_M$ of 6 ns as exhibited by Gd-SSS-NO$_2$BnDO$_3$MA-1A seems likely to be a particularly effect value at magnetic fields in the region of 100 MHz.