

### **relaxation time**

1. In magnetic resonance spectroscopy the longitudinal relaxation time,  $T_1$ , is associated with spin-lattice relaxation, and the transverse relaxation time,  $T_2$ , with spin-spin relaxation. The definitions are:  $dM_z/dt = -(M_z - M_{z,e})/T_1$  and  $dM_x/dt = -M_x/T_2$ , where  $M_z$  and  $M_x$  are the components of magnetization parallel and perpendicular to the static field  $B$  and the subscript e denotes the equilibrium value.

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2. In a chemical reaction, the time,  $\tau$ , in which a concentration perturbation falls to  $1/e$  of its initial value.

G.B. 55; see also 1996, 68, 185