

Figures of Chapter 6,  $\text{Li}_2\text{ZrO}_3$

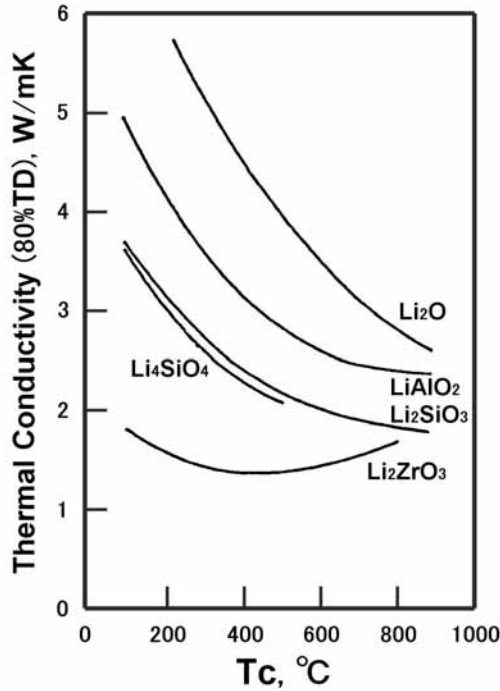


Fig.6.1 Thermal conductivity of  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$  (80% TD).<sup>17)</sup>

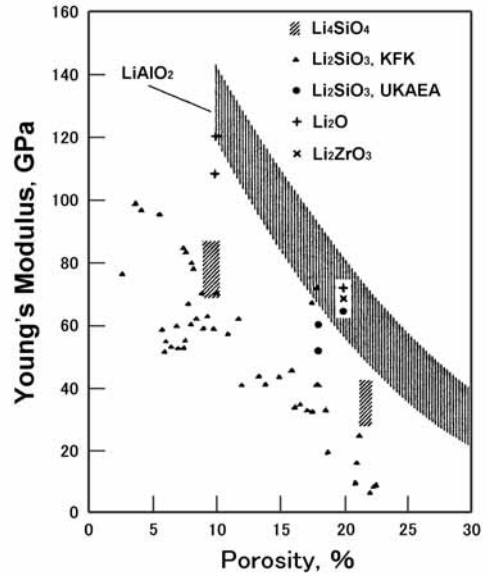


Fig.6.2 Porosity dependence of Young's Modulus values for  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$ .<sup>50) 17) 6)</sup>

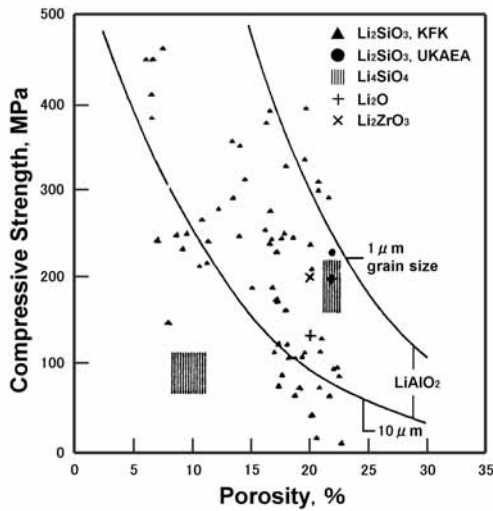


Fig.6.3 Porosity dependence of compressive strengths for  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$ .<sup>17)</sup>

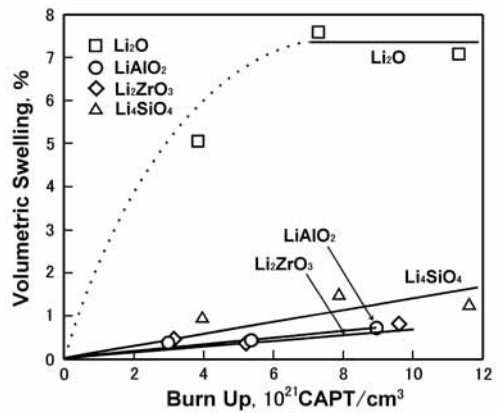


Fig.6.4 Volumetric swelling of  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$  at 700 °C.<sup>49)</sup>

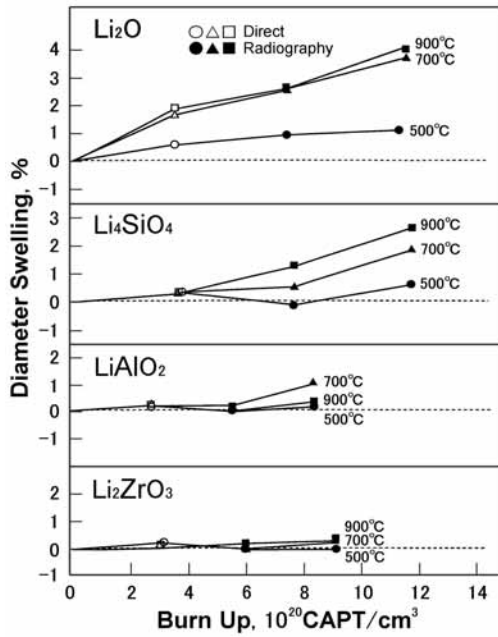


Fig.6.5 Diameter swelling of  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$  at 500 , 700 , 900 .<sup>70)</sup>

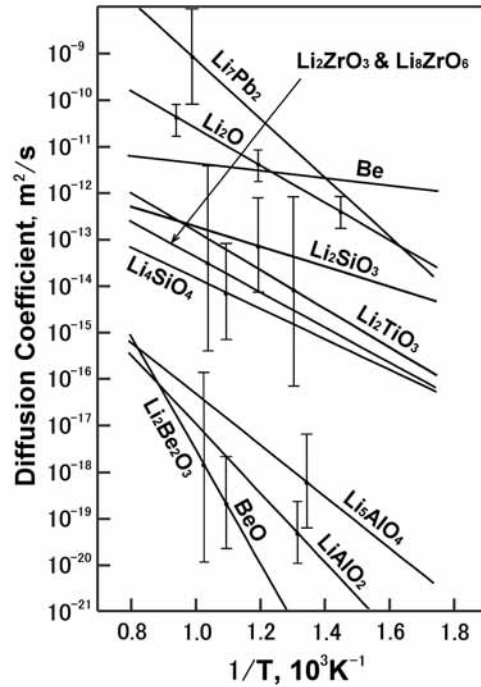


Fig.6.6 Summary of tritium diffusion coefficient in  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$ .<sup>18)</sup>

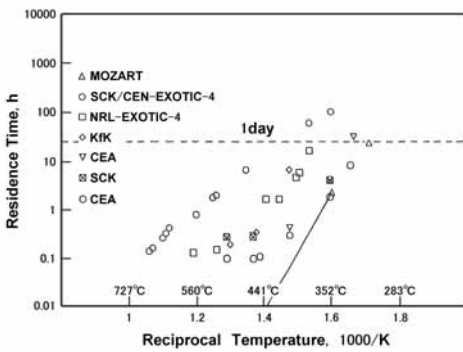


Fig.6.7 Tritium residence times for  $\text{Li}_2\text{ZrO}_3$ .<sup>12) 47) 50)</sup>

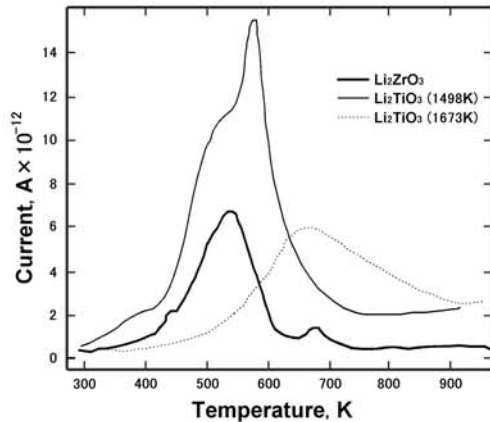


Fig.6.9 Tritium desorption curves for  $\text{Li}_2\text{ZrO}_3$  and  $\text{Li}_2\text{TiO}_3$  at a linear heating rate of 2 K/min., pure He sweep gas.<sup>27)</sup>

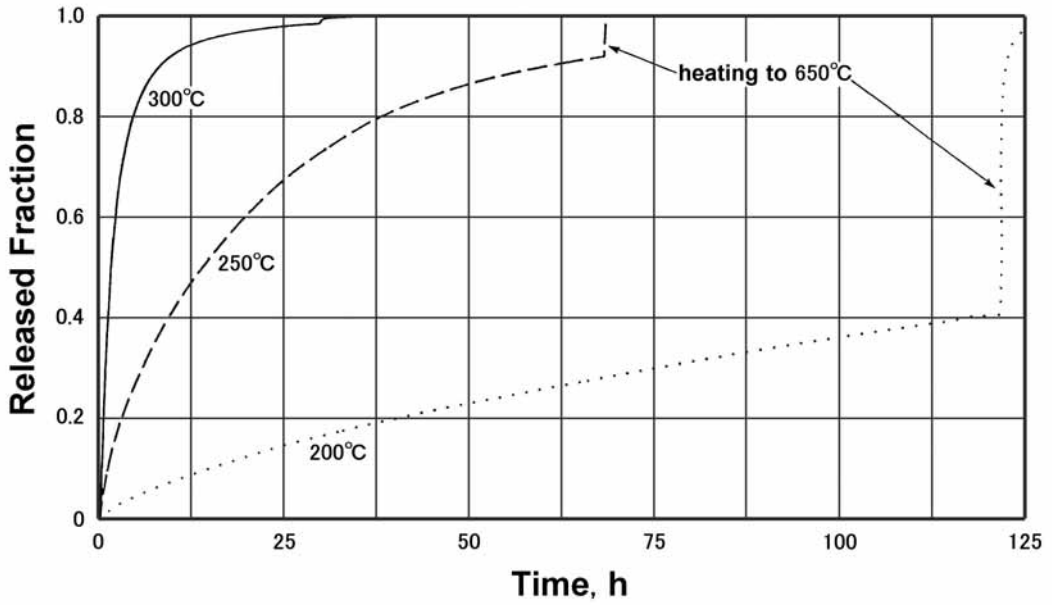


Fig.6.8 Isothermal tritium release at 300 , 250 , 200 in He + 0.1% $H_2$  purge gas flow rate  $2.4\text{h}^{-1}$  for  $\text{Li}_2\text{ZrO}_3$ .<sup>50) 51)</sup>

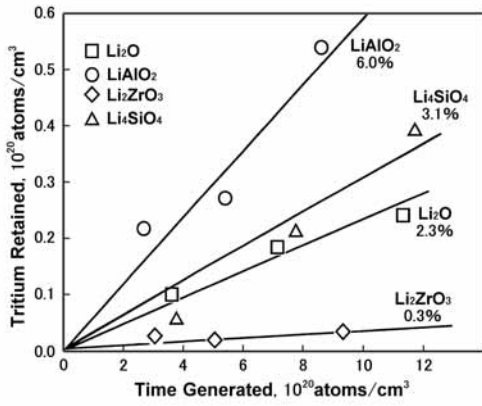


Fig.6.10 Tritium retention in  $\text{Li}_2\text{ZrO}_3$ ,  $\text{Li}_2\text{O}$  and  $\text{Li}_4\text{SiO}_4$  at  $700^\circ\text{C}$ .<sup>49) 50)</sup>

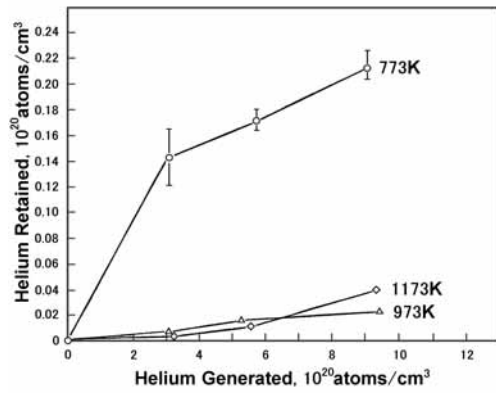


Fig.6.11 Helium retention in  $\text{Li}_2\text{ZrO}_3$ .<sup>48)</sup>

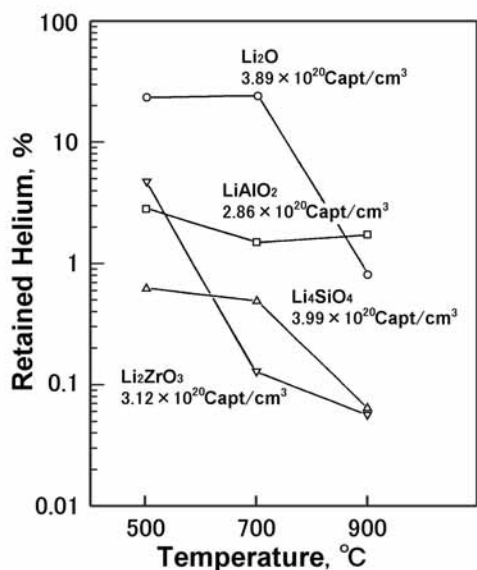


Fig.6.12 Helium retention in Li<sub>2</sub>ZrO<sub>3</sub>, Li<sub>2</sub>O and Li<sub>4</sub>SiO<sub>4</sub> after irradiation. <sup>48)</sup>

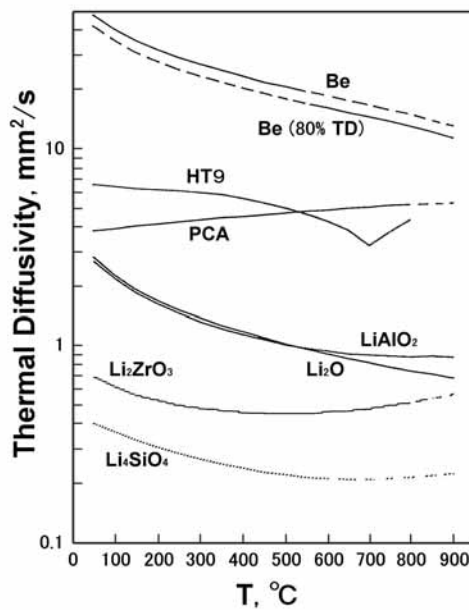


Fig.6.13 Thermal diffusivity of Li<sub>2</sub>ZrO<sub>3</sub>, Li<sub>2</sub>O and Li<sub>4</sub>SiO<sub>4</sub> (80% TD). <sup>12)</sup>