

**Table 2.** Beryllium Reservoir Abundances and Fluxes

| Reservoir  | Be, kg               | Be, kg/yr                 | Be concentration                        |
|--|----------------------|---------------------------|---|
| Mantle <sup>1</sup>  | $2 \times 10^{17}$   |                           |   |
| MORB source  |                      |                           | 0.02-0.03 ppm*                          |
| Intraplate source  |                      |                           | 0.08-0.1 ppm*                           |
| "Primitive mantle"   |                      |                           | ~ 0.066 ppm*                            |
| Oceans <sup>1</sup>  | $2.5 \times 10^{11}$ |                           | 0.2 pg/g (seawater)                     |
| River inputs <sup>2</sup>                                  |                      | $4 \times 10^4$           | 1.2 pg/g (river water)                  |
| Aerosol inputs <sup>3</sup>                                |                      | $7-24 \times 10^4$<br>(?) |   |
| Marine hydrothermal inputs <sup>4</sup>                    |                      | $1-5 \times 10^4$         | 0.1-0.4 ng/g<br>(endmember vent fluids) |
| Marine Sediments <sup>5</sup>                              | $6 \times 10^{14}$   |                           | 1.5 ppm                                 |
| Continents <sup>1</sup>                                    | $3 \times 10^{16}$   |                           | 1.5 ppm                                 |
| Additions to ocean crust via MORB magmatism <sup>5</sup>   |                      | $9.9 \times 10^6$         | 0.3 ppm (MORB)                          |
| Sediment Subduction <sup>5</sup>                           |                      | $1.5 \times 10^6$         | 1.5 ppm (sediments)                     |
| Additions to the continents via arc magmatism <sup>5</sup> |                      | $1.6 \times 10^6$         | 0.5 ppm (Arc basalts)                   |

\*Inverse modeling results for MORB suites (Ryan and Langmuir 1988) and inferences from Be/Nd ratios.

1. Mass data from Press and Siever (1978)
2. From Measures and Edmond (1983)
3. From Brown et al. (1992)
4. From Von Damm et al. (1985a)
5. Mass data from Reymer and Schubert (1984)