

```
1 function SourceRate, sourcemap, peakflux
2
3
4
5 ;; Given a sourcemap structure and (optionally) the peak flux, calculates
6 ;; the total source rate
7
8 ;; Note - currently assumes that planet = Mercury
9
10 ;; Version History:
11 ;; 1.0: written 8 Nov 2011
12
13
14
15 if (peakflux EQ !null) $
16   then map = *sourcemap.map $
17   else map = *sourcemap.map/max(*sourcemap.map)*peakflux
18
19 dlon = (*sourcemap.longitude)[1]-(*sourcemap.longitude)[0]
20 dlat = (*sourcemap.latitude)[1]-(*sourcemap.latitude)[0]
21 dcos = one(*sourcemap.longitude) # cos((*sourcemap.latitude))
22
23 sourcerate = total(map*dcos) * (!Mercury.radius*1e5)^2 * dlon * dlat
24
25 return, sourcerate
26
27 end
28
29
```