

Table 7. Photon energies (E_p 's) and orbital radii (r/R_s) used for the construction of Fig. 12. The individual pairings of E_p 's and r/R_s 's are determined by first pairing $E_p(7,\infty)$ and $E_p(8,\infty)$ with the inner radii of the A and E rings respectively. Then the other pairings automatically fall into place.

Satellite or Ring Edge Name	$[i]^a$	r/R_s^b	n_f, n_i^c	$E_p(n_f, n_i)^c$ (cm^{-1})
Inner Edge A ring	[1]	2.030	7, ∞	2239.5
Pan in Encke Gap	[2]		5,7	2149.9
Pan in Encke Gap	[2]		6,11	2141.4
Average of Pan E_p 's	[2]	2.217		2145.7
Daphnis in Keeler Gap	[3]	2.265	7,20	1965.2
Outer Edge A ring		2.270		
Atlas	[4]	2.284	6,10	1950.9
Prometheus	[5]	2.312	7,19	1935.6
F ring	[6]	2.320	7,18	1900.8
Pandora	[7]	2.351	7,17	1859.8
Epimetheus and Janus	[8]	2.511	7,16	1810.9
Inner Edge G ring		2.754		
Aegaeon	[9]	2.779	7,15	1751.8
Outer Edge G ring		2.871		
Inner Edge E ring	[10]	2.987	8, ∞	1714.6
Mimas	[11]	3.073	6,9	1693.5
Methone	[12]	3.219	7,14	1679.6
Anthe	[13]	3.280	7,13	1590.2
Pallene	[14]	3.501	7,12	1477.5
Enceladus	[15]		5,6	1341.2
Enceladus	[15]		6,8	1333.6
Enceladus	[15]		7,11	1332.6
Average of Enceladus E_p 's	[15]	3.949		1335.8
Tethys, Calypso & Telesto	[16]	4.889	7,10	1142.2
Dione, Helene & Polydeuces	[17]	6.262	7,9	884.8
Outer Edge E ring		7.964		
Rhea	[18]		6,7	808.7
Rhea	[18]		8,11	807.7
Average of Rhea E_p 's	[18]	8.745		808.2
Titan	[19]	20.273	8,10	617.3

^a The satellite indices ($[i]$ values) are assigned to satellites in this table and used in Table 6 and Fig. 12.

^b Orbital radii of satellites and rings in units of the equatorial radius of Saturn.

^c The quantum numbers that define transitions in the hydrogen atom and photon energies associated with these transition.