

Table 6. Photon energies ( $E_p$ 's) used to construct the photon energy energy distribution (PED) in Fig. 12.

$n_i$	$n_f=5$	$n_f=6$	$n_f=7$	$n_f=8$
6	15 <b>1341.2</b>			
7	2 <b>2149.9</b>	18 <b>808.7</b>		
8		15 <b>1333.6</b>	(Low $E_p$ )	
9		11 <b>1693.5</b>	17 <b>884.8</b>	(Low $E_p$ )
10		4 <b>1950.9</b>	16 <b>1142.2</b>	19 <b>617.3</b>
11		2 <b>2141.3</b>	15 <b>1332.6</b>	18 <b>807.7</b>
12			14 <b>1477.5</b>	952.6
13			13 <b>1590.2</b>	1065.3
14			12 <b>1679.6</b>	1154.8
15			9 <b>1751.8</b>	1226.9
16			8 <b>1810.9</b>	1286.0
17			7 <b>1859.8</b>	1334.9
18			6 <b>1900.8</b>	1375.9
19			5 <b>1935.6</b>	1410.7
20			3 <b>1965.2</b>	1440.3
21			1990.7	1465.8
22			2012.8	1487.9
23			2032.1	1507.2
24			2049.0	1524.1
25			2064.0	1539.1
26			2077.2	1552.3
↓			↓	↓
∞			1 <b>2239.5</b>	10 <b>1714.6</b>

A set of principal quantum numbers ( $n_f, n_i$ ) defines a transition in the hydrogen atom.

The column of integers on the far left contains values of  $n_i$ , the initial quantum number for the transition.

The row of integers along the top contains values of  $n_f$ , the final quantum number for the transition.

A photon energy  $E_p$  is the number listed under each  $n_f$  and in a row where the initial quantum number is  $n_i$ .  $E_p(n_f, n_i)$  is in units of  $\text{cm}^{-1}$ .

Bolded, italicized  $E_p$ 's are assigned to individual satellites and ring inner edges in Saturn's satellite system.

The number to the left of each of these  $E_p$ 's is the number assigned to a satellite or ring edge in Table 7.

The  $E_p$ 's that are not bolded or italicized contribute to either the A or E ring of Saturn.

The  $E_p$ 's range from 617.3 to 2239.5  $\text{cm}^{-1}$ . This is the range covered by Table 7 and Fig. 12

(Low  $E_p$ ) is indicated for  $E_p(7,8)$  and  $E_p(8,9)$  because they are out of the range of  $E_p$ 's used in Fig. 12.

$E_p$  values corresponding to  $n_f=9$  or larger are not included. Apparently they did not create resonance.

Many  $E_p$ 's in the columns under  $n_f=5$  and 6 are not listed because their values are above 2239.5  $\text{cm}^{-1}$ .