Table 6. Photon energies ($E_p$'s) in the hydrogen spectrum used to construct Table 7 and Fig. 12.
Bolded $E_p$'s are in the range 617.3-2239.5 cm$^{-1}$. These $E_p$'s are for the points plotted in Fig. 12.

| $n_i$ | $n_f = 4$ | [ $i$ ] | $n_f = 5$ | [ $i$ ] | $n_f = 6$ | [ $i$ ] | $n_f = 7$ | [ $i$ ] | $n_f = 8$ |
|---|---|---|---|---|---|---|---|---|---|
| 5 | (High $E_p$'s) | | x | | x | | x | | x |
| 6 | ↓ | [15] | ***1341.2*** | | x | | x | | x |
| 7 | | [2] | ***2149.9*** | [18] | ***808.7*** | | x | | x |
| 8 | | | (High $E_p$'s) | [15] | ***1333.6*** | | 524.9 | | x |
| 9 | | | ↓ | [11] | ***1693.5*** | [17] | ***884.8*** | | 359.9 |
| 10 | | | | [4] | ***1950.9*** | [16] | ***1142.2*** | [19] | ***617.3*** |
| 11 | | | | [2] | ***2141.3*** | [15] | ***1332.6*** | [18] | ***807.7*** |
| 12 | | | | | (High $E_p$'s) | [14] | ***1477.5*** | E ring | 952.6 |
| 13 | | | | | ↓ | [13] | **1590.2** | E ring | 1065.3 |
| 14 | | | | | | [12] | ***1679.6*** | E ring | 1154.8 |
| 15 | | | | | | [9] | ***1751.8*** | E ring | 1226.9 |
| 16 | | | | | | [8] | ***1810.9*** | E ring | 1286.0 |
| 17 | | | | | | [7] | ***1859.8*** | E ring | 1334.9 |
| 18 | | | | | | [6] | ***1900.8*** | E ring | 1375.9 |
| 19 | | | | | | [5] | ***1935.6*** | E ring | 1410.7 |
| 20 | | | | | | A ring&[3][1] | ***1965.2*** | E ring | 1440.3 |
| 21 | | | | | | A ring | 1990.7 | E ring | 1465.8 |
| 22 | | | | | | A ring | 2012.8 | E ring | 1487.9 |
| 23 | | | | | | A ring | 2032.1 | E ring | 1507.2 |
| 24 | | | | | | A ring | 2049.0 | E ring | 1524.1 |
| 25 | | | | | | A ring | 2064.0 | E ring | 1539.1 |
| ↓ | | | | | | | ↓ | | ↓ |
| ∞ | | | | | | IE A[1] | ***2239.5*** | IE E[10] | ***1714.6*** |

IE stands for Inner Edge.
A set of principal quantum numbers ($n_f$,$n_i$) defines a transition in the hydrogen atom where $n_i > n_f$.
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 a transition.
A photon energy $E_p(n_f,n_i)$ in units of cm$^{-1}$ is listed under each $n_f$ and in a row where the initial quantum number is $n_i$.
Bolded $E_p$'s are assigned to individual satellites and ring inner edges in Saturn's satellite system.
Generally unbolded $E_p$'s contributed to the creation of the A ring and E ring. IE A is inner edge A ring.
The satellite index [$i$] to the left of each bolded $E_p$ is the index assigned to a satellite or ring edge in Table 7. An [$i$] value associates each $E_p$ with a particular orbital radius of a satellite or ring edge in Saturn's system. There are no unpaired $E_p$'s or orbital radii. Most importantly limits $E_p(7,\infty)$and $E_p(8,\infty)$ are associated with the inner radii of the A and E rings respectively.
All unbolded close $E_p$'s contribute to either the A or E ring of Saturn.
[1]Daphnis ($E_p$(7,20),[3]) is in the Keeler Gap near the outer edge of the A ring. NASA(2021)
$E_p$(7,8) and $E_p$(8,9) are out of the range of interest.
(High $E_p$'s) is indicated for many $E_p$'s because they are out of range of interest.
$E_p$'s corresponding to $n_f = 9$ or larger are not included. Apparently they did not create resonance.