Table 6 part 1. H_2 Transitions and their associated photon energies (E_P's) and relative spectral intensities (I's) associated with Uranian satellites around the peak temperature in the TD and to the left of the peak temperature. And T's in the protosatellite disk where and when satellites begin their evolution.

i	H_2 Transition[a]	E_P(cm^{-1})[a]	I [a]	Uranian Satellites	R_{ui} [b]	$T(K)$[c]
6	(2,1) S(5)	5142	0.25	Desdemona	2.453	3295[d]
5	(9,7) S(1)	5147	0.11	Desdemona	2.453	
4	(2,1) S(6)	5278	0.08	Cressida	2.418	3622[d]
3	(1,0) S(4)	5286	0.37	Cressida	2.418	
2	(9,7) S(3)[d]	5325[d]	0.05[e]			
1	(2,1) S(7)	5397	0.12	Bianca	2.316	3882
					R'_{ui} [b]	
1	(2,1) S(7)	5397	0.12	Ophelia	2.105	3882
2	(9,7) S(3)[d]	5325[d]	0.05[e]			
3	(1,0) S(4)	5286	0.37	Ring ε	2.006	3622[d]
4	(2,1) S(6)	5278	0.08	Ring ε	2.006	
5	(9,7) S(1)	5147	0.11	Ring λ	1.957	3295[d]
6	(2,1) S(5)	5142	0.25	Ring λ	1.957	
7	(1,0) S(3)	5108	1.07	Cordelia	1.948	3213
8	(9,7) S(0)[d]	5032[d]	0.06[e]			
9	(2,1) S(4)	4990	0.19	Ring δ	1.900	2940
10	(1,0) S(2)	4917	0.80	Ring γ	1.863	2771
11	(3,2) S(5)	4841	0.11	Ring η	1.834	2560[d]
12	(2,1) S(3)	4823	0.56	Ring η	1.834	
13	(1,0) S(1)	4713	1.60	Ring β	1.786	2297[d]
14	(3,2) S(4)	4699	0.09	Ring β	1.786	
15	(2,1) S(2)	4642	0.44	Ring α	1.750	2134
16	(3,2) S(3)	4543	0.28	Ring 4	1.666	1905
17	(1,0) S(0)	4498	0.73	Ring 5	1.652	1801
18	(2,1) S(1)	4449	0.89	Ring 6	1.637	1688

[a]Black and van Dishoeck (1987)

[b]NASA(2021), R_{ui} are orbital radii of satellites from Bianca to Oberon.

R'_{ui} are orbital radii of satellites from Ring 6 to Ophelia.

[c]T's from $T = (E_p\text{-}E_b)/C'$. This relationship is discussed in section 2.7 of the text.

[d]T is calculated for this satellite using two close E_p's. First the weighted average of the two E_p's is determined using relative intensities (I's) as weighting factors. Then T is calculated from $T = (E_p\text{-}E_b)/C'$, where E_p is the weighted average. See Figure 4.

[e]It was not possible to associate this spectral line with a satellite. Because its relative intensity (I) is low, it is assumed it does not create resonance and it is not included in the analysis. See Figure 4.

Continued in Table 6 part 2.