

ERRATUM: “IRC+10216’S INNERMOST ENVELOPE—THE eSMA’S VIEW” (2009, ApJ, 698, 1924)

HIROKO SHINNAGA¹, KEN H. YOUNG², REMO P. J. TILANUS^{3,4}, RICHARD CHAMBERLIN¹, MARK A. GURWELL², DAVID WILNER²,
 A. MEREDITH HUGHES², HIROSHIGE YOSHIDA¹, RUI SHENG PENG¹, BRIAN FORCE¹, PER FRIBERG³, SANDRINE BOTTINELLI⁵,
 EWINE F. VAN DISHOECK⁵, AND THOMAS G. PHILLIPS¹

¹ California Institute of Technology Submillimeter Observatory (CSO), 111 Nowelo St., Hilo, HI 96720, USA; shinnaga@submm.caltech.edu

² Harvard-Smithsonian Center for Astrophysics, 60 Garden Street, Cambridge, MA 02138, USA

³ Joint Astronomy Centre, 660 North A’ohoku Place, University Park, Hilo, HI 96720, USA

⁴ Netherlands Organization for Scientific Research, P.O. Box 93138, NL-2509 AC The Hague, The Netherlands

⁵ Leiden Observatory, Leiden University, P.O. Box 9513, NL-2300 RA Leiden, The Netherlands

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Because of typographical errors in the published article and newly available information, Table 1 and Figure 4 are revised for the molecular transitions detected with the eSMA, described in Shinnaga et al. (2009). The two U lines, U265253 and U265386, are assigned as HCN $J = 3-2$ transitions in the vibrational states of $(0, 2^{2f}, 1)$ and $(0, 2^0, 1)$. Another line falls near the frequency of the KCl line at 265264.8 MHz, HCN $J = 3-2$ transition in the $(0, 2^{2e}, 1)$ state. These two lines are blended in the observed component centered at 265265.43 GHz. The components of likely detections that are marked as a, b, and d and described in Section 3.2 in Shinnaga et al. (2009) turned out to be HCN $J = 3-2$ transitions in the vibrational states of $(1, 2^{2f}, 0)$, $(1, 2^{2e}, 0)$, and $(1, 2^0, 0)$, respectively. The revised table and figure include these components. These HCN transitions of likely detections have high energy levels >6700 K, higher than the rest of the HCN transitions that were already assigned significant amplitudes as described in Shinnaga et al. (2009).

Table 1
 Molecular Transitions Detected with the eSMA

$F_{\text{cat}}^{\text{a}}$ (MHz)	$F_{\text{cnt}}^{\text{b}}$ (MHz)	$S_{\text{peak}}^{\text{c}}$ (Jy)	Identification	E_L^{d} (K)	$V_{\text{exp}}^{\text{e}}$ (km s^{-1})	$F_{\text{cat}} - F_{\text{cnt}}$ (MHz)	References for Frequencies
U264665	...	0.6			4.2 (6)	...	
264789.76	264790.50	0.8	$\text{Si}^{34}\text{S } J = 15-14, v = 0$	88.9	16.3 (2) ^f	-0.74	(1)
265252.88	265253.06	0.5	HCN $J = 3-2, v = (0, 2^{2f}, 1)$	5024	5.1 (3)	-0.18	(2)
265264.04	265265.43 ^g	0.8 ^g	HCN $J = 3-2, v = (0, 2^{2e}, 1)$	5024	4.1(3) ^g	-1.40	(2)
265264.80	265265.43 ^g	0.8 ^g	KCl $J = 35-34, v = 2$	1012	4.1(3) ^g	-0.63	(1)
265310.23	265311 ^h	...	HCN $J = 3-2, v = (1, 2^{2f}, 0)$	6769	...	-0.77	(2)
265321.72	265323 ^h	...	HCN $J = 3-2, v = (1, 2^{2e}, 0)$	6769	...	-1.28	(2)
265364.36	265364.90	1.2	HCN $J = 3-2, v = (0, 1^{1f}, 1)$	4001	6.8 (7)	-0.54	(3)
265373.12	265373.99	0.6	HCN $J = 3-2, v = (1, 1^{1f}, 0)$	5770	3.2 (3)	-0.87	(3)
265384.32	265385.90	0.5	HCN $J = 3-2, v = (0, 2^0, 1)$	5002	3.5 (7)	-1.58	(2)
265445.87	265448 ^h	...	HCN $J = 3-2, v = (1, 2^0, 0)$	6747	...	-2.13	(2)
265852.71	265852.41	29	HCN $J = 3-2, v = (0, 1^{1e}, 0)$	1036	12.8 (1)	+0.30	(1)
265886.19	265883.50	10	HCN $J = 3-2, v = 0$	12.8	12.9 (1) ⁱ	+2.69	(1)

Notes.

^a Recommended frequency from catalog.

^b Observed center frequency.

^c Peak flux density observed with the interferometer.

^d Energy of the lower level of the transition relative to the ground state.

^e Expansion velocity. The numbers in parentheses represent one standard deviation in units of the last significant digit.

^f The line’s full width at half-maximum is 9.2 km s^{-1} .

^g Blended.

^h Components of likely detections (see Section 3.2 of Shinnaga et al. 2009).

ⁱ The broadening effect due to hyperfine components is subtracted.

References. (1) NIST catalog. (2) T. Amano 2010, private communication. The frequencies are derived from the molecular constants given in Zelinger et al. 2003. (3) de Lucia & Helminger 1977.

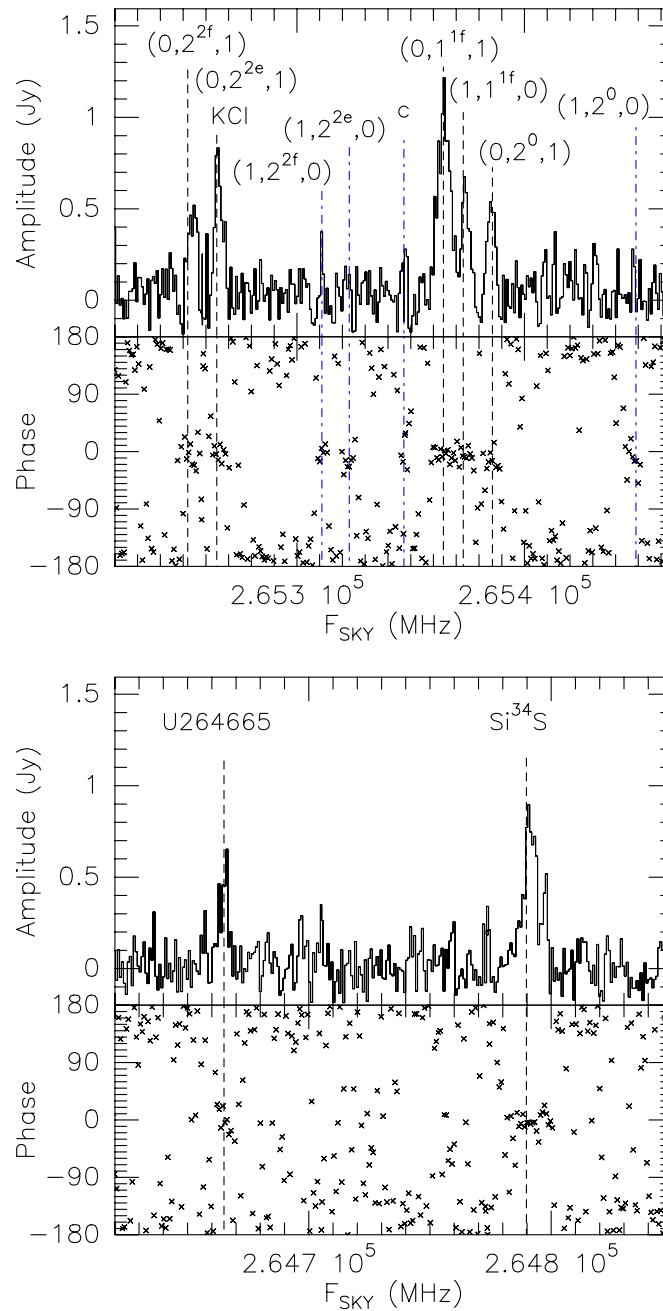


Figure 4. Averaged spectra over all baselines with corrected notation.
(A color version of this figure is available in the online journal.)

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