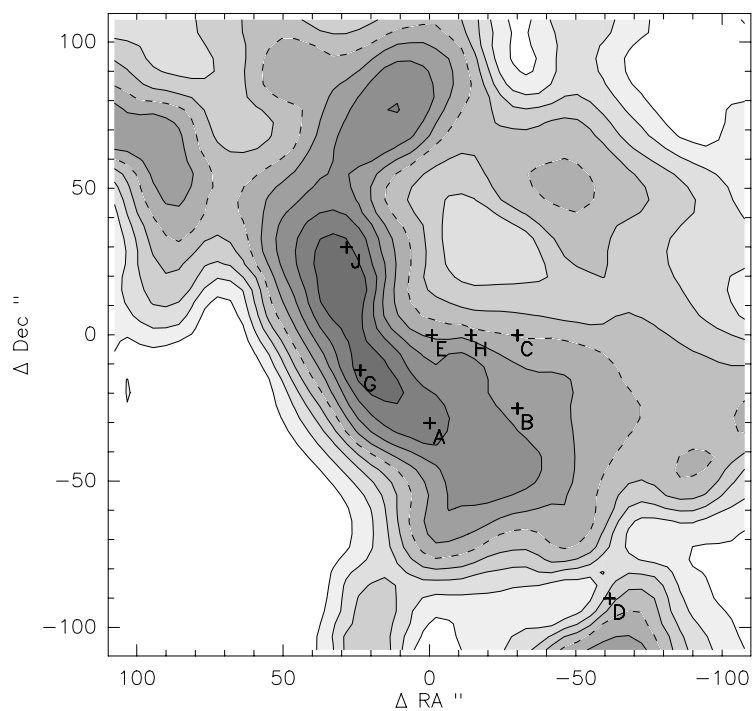


# Appendix F

## Edge Cloud 2 observations at the JCMT 15m telescope June 2004

Figure F.1:  $^{12}\text{CO}$  (2–1) map of Edge Cloud 2 showing observed positions A and B:  
A.  $\alpha_{1950} = 02:44:52.6$ ,  $\delta = 58:16:00.2$ ,  $v_{\text{rad}} = -103.69 \text{ km s}^{-1}$  (EC2HCO+P).  
B.  $\alpha_{1950} = 02:44:48.8$ ,  $\delta = 58:16:05.2$ ,  $v_{\text{rad}} = -103.70 \text{ km s}^{-1}$  (EC2).



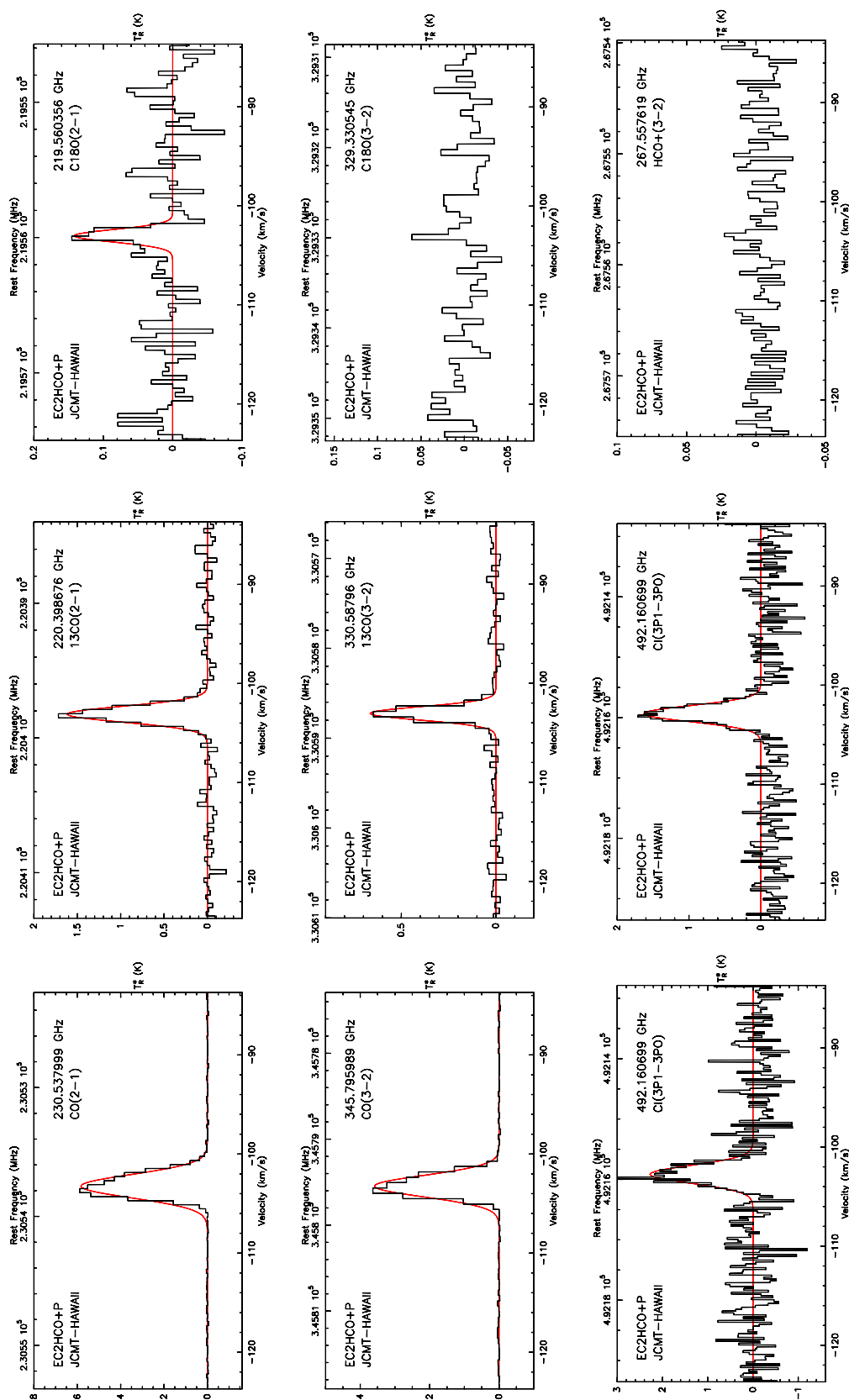


Figure F.2: EC2 position A: spectra observed at the JCMT 15m June 2004 (EC2HCO+P:  $\alpha_{1950} = 02:44:52.6$ ,  $\delta = 58:16:00.2$ ,  $v_{\text{rad}} = -103.69 \text{ km s}^{-1}$ ).

Table F.1: EC2 position A: spectra observed at the JCMT 15m June 2004.  
Line spectra summary for Fig. F.2 (where  $\bullet = I > 3\sigma$  and  $\circ = I > 2\sigma$ ).

$I$	Source	Line	Trans.	Frequency (GHz)	Position (km s <sup>-1</sup> )	Width (km s <sup>-1</sup> )	Area (K km s <sup>-1</sup> )	$T_R^*$ (K)	rms (K)	Resol. (km s <sup>-1</sup> )	Time (min)	UT	LST	$T_{\text{sys}}$ (K)	Receiver
$\bullet$	EC2HCO+P	CO	2-1	230.537999	-103.25 ± 0.00	2.76 ± 0.01	17.13 ± 0.04	5.827	0.024	0.406	50	19:11	02:03	257	JCMT-A
$\bullet$	EC2HCO+P	<sup>13</sup> CO	2-1	220.398676	-103.11 ± 0.02	1.89 ± 0.06	3.25 ± 0.09	1.616	0.062	0.425	10	18:35	01:31	331	JCMT-A
$\bullet$	EC2HCO+P	C <sup>18</sup> O	2-1	219.560356	-103.04 ± 0.14	1.48 ± 0.32	0.22 ± 0.04	0.142	0.031	0.427	50	22:03	05:04	334	JCMT-A
$\bullet$	EC2HCO+P	CO	3-2	345.795989	-103.24 ± 0.00	2.56 ± 0.01	9.77 ± 0.03	3.588	0.019	0.542	80	18:07	00:47	421	JCMT-B
$\bullet$	EC2HCO+P	<sup>13</sup> CO	3-2	330.587960	-103.05 ± 0.02	1.58 ± 0.06	1.12 ± 0.04	0.665	0.025	0.567	120	17:05	00:05	798	JCMT-B
$\bullet$	EC2HCO+P	C <sup>18</sup> O	3-2	329.330545	—	—	—	—	0.020	0.569	240	20:35	03:35	633	JCMT-B
$\bullet$	EC2HCO+P	C <sub>1</sub>	<sup>3</sup> P <sub>1</sub> - <sup>3</sup> P <sub>0</sub>	492.160699	-102.75 ± 0.08	2.12 ± 0.16	5.15 ± 0.37	2.275	0.398	0.190	50	17:50	04:11	4098	JCMT-W
$\bullet$	EC2HCO+P	C <sub>1</sub>	<sup>3</sup> P <sub>1</sub> - <sup>3</sup> P <sub>0</sub>	492.160699	-102.88 ± 0.06	1.91 ± 0.14	3.31 ± 0.21	1.628	0.234	0.190	70	19:16	00:53	2432	JCMT-W
$\bullet$	EC2HCO+P	HCO <sup>+</sup>	3-2	267.557619	—	—	—	—	0.012	0.350	240	19:16	04:34	289	JCMT-B

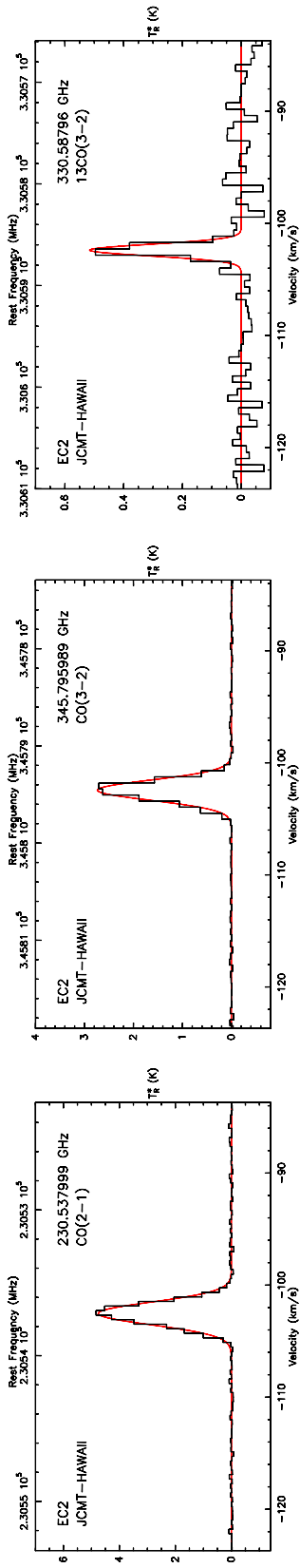


Figure F.3: EC2 position B: spectra observed at the JCMT 15m June 2004  
(EC2:  $\alpha_{1950} = 02:44:48.8$ ,  $\delta = 58:16:05.2$ ,  $v_{\text{rad}} = -103.70 \text{ km s}^{-1}$ ).

Table F.2: EC2 position B: spectra observed at the JCMT 15m June 2004.  
Line spectra summary for Fig. F.3 (where  $\bullet = I > 3\sigma$  and  $\circ = I > 2\sigma$ ).

$I$	Source	Line	Trans.	Frequency (GHz)	Position (km s <sup>-1</sup> )	Width (km s <sup>-1</sup> )	Area (K km s <sup>-1</sup> )	$T_R^*$ (K)	rms (K)	Resol. (km s <sup>-1</sup> )	Time (min)	UT	LST	$T_{\text{sys}}$ (K)	Receiver
$\bullet$	EC2	CO	2-1	230.537999	$-102.53 \pm 0.01$	$2.38 \pm 0.01$	$12.04 \pm 0.06$	4.759	0.039	0.406	20	16:57	01:35	238	JCMT-A
$\bullet$	EC2	CO	3-2	345.795989	$-102.44 \pm 0.00$	$2.12 \pm 0.01$	$6.17 \pm 0.03$	2.736	0.018	0.542	160	19:20	04:26	445	JCMT-B
$\bullet$	EC2	<sup>13</sup> CO	3-2	330.587960	$-102.39 \pm 0.04$	$1.22 \pm 0.10$	$0.67 \pm 0.04$	0.516	0.035	0.567	120	17:49	00:53	805	JCMT-B