

Table I Page 1/2

Accurate characterisation of the C(3)^Σ state of the NaRb molecule
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 + Transitions from the X1Σ state of Na85Rb and Na87Rb to the C1Σ
 + excited electronic state, induced by Ar+ laser in single- and
 + multi mode regime and by single mode Nd:YAG and Rhodamine 6G lasers.
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Notations:

v', J', v'', J'': vibrational and rotational quantum numbers of the excited and
 absorbing level, respectively.

range of v'': the range of v'' observed in the laser induced fluorescence.

regime: MM (multi mode),
 SM (single mode).

freq.cm-1: The frequency of the exciting laser in cm-1.

 Ar+ 5145 A

N	v'	J'	v''	J''	isotopom.	range of v''	regime
1	33	8	1	9	Na85Rb	21 64	MM
2	35	10	2	11	Na87Rb	27 68	MM
3	33	13	1	12	Na85Rb	53 61	SM
4	41	23	5	24	Na85Rb	57 76	SM
5	39	23	4	22	Na87Rb	54 72	SM
6	41	25	5	24	Na87Rb	59 73	SM
7	39	26	4	25	Na85Rb	27 76	MM
8	34	42	1	43	Na85Rb	1 69	MM
9	32	43	0	42	Na87Rb	21 63	MM
10	35	63	1	62	Na87Rb	22 70	MM
11	39	60	3	61	Na87Rb	55 65	SM
12	44	96	4	95	Na87Rb	57 63	SM

Table I Page 2/2

 Nd:YAG

freq., cm-1	v'	J'	v''	J''	isotopom.	range of v''
18787.99	21	47	0	46	Na87Rb	0 49
	21	43	0	44	Na85Rb	0 49
	28	111	1	112	Na85Rb	1 55
18787.45	23	53	1	52	Na85Rb	0 50
18787.50	24	89	0	90	Na87Rb	0 50
18787.65	26	96	1	95	Na87Rb	48 51
	25	105	0	104	Na85Rb	0 52
18787.36	24	94	0	93	Na87Rb	0 50
	22	23	1	22	Na85Rb	0 48
18787.25	23	48	1	49	Na85Rb	0 50
	30	44	5	45	Na85Rb	53 57
18788.23	21	48	0	47	Na85Rb	0 49
	29	59	4	60	Na85Rb	0 56
18788.37	23	77	0	78	Na85Rb	0 50
	25	84	1	83	Na87Rb	0 51
18788.44	23	82	0	81	Na85Rb	0 50
	27	123	0	122	Na85Rb	0 55

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v'	J'	v''	J''	isotopom.	range of v''	regime
46	50	2	51	Na85Rb	59 61	MM

 dye laser (R6G)

freq., cm-1	v'	J'	v''	J''	isotopom.	range of v''
16925.99	5	114	6	115	Na85Rb	25 28