Astronomy magazine

The van den Bergh catalog

In the January 2009 issue of *Astronomy*, Thomas V. Davis wrote about the van den Bergh catalog of reflection nebulae. Here is a list of all 158 objects Canadian astronomer Sidney van den Bergh cataloged.

Visually, you can expect to see the nebulae van den Bergh classified as VBR (very bright), BR (bright), and M (moderate). Those with other surface brightnesses will challenge even the largest telescopes.

These objects make great targets for astroimagers, however. CCD cameras coupled to medium-sized telescopes can capture most of them, albeit with long exposure times. If you successfully image any of these objects, send high-resolution copies to readergallery@Astronomy.com.

vdB number	Right ascension (2000.0)	Declination (2000.0)	Magnitude	Type	Surface brightness
1	0h11m	58°46'	8.60	I	BR
2	0h13m	65°37'	9.50	I	M
3	0h35m	69°26'	8.50	I	M
4	0h43m	61°55'	9.50	I-II	F
5	0h57m	60°43'	2.57	II	M
6	1h44m	61°50'	9.20	II	F
7	2h49m	69°38'	6.50	II	F
8	2h52m	67°49'	8.50	I	VBR
9	2h52m	68°53'	5.96	II	F
10	3h16m	57°08'	6.00	I	F
11	3h24m	61°32'	8.37	II	M
12	3h25m	31°44'	7.00	I	M
13	3h26m	30°56'	8.80	I	F
14	3h29m	59°56'	4.23	II	M
15	3h30	58°53'	4.58	II	M
16	3h28m	29°48'	9.10	II	M
17	3h29m	31°25'	9.50	I	BR
18	3h35m	38°01'	7.58	II	F
19	3h45m	32°10'	8.53	I	BR
20	3h45m	24°07'	3.71	I	M
21	3h46m	24°22'	3.88	I	BR
22	3h46m	23°57'	4.18	I	VBR
23	3h47m	24°06'	2.87	I	M
24	3h50m	38°59'	8.80	II	M
25	4h12m	23°34'	7.50	II	F
26	4h14m	10°13'	7.20	I	M
27	4h22m	28°27'	9.10	I	F
28	4h22m	19°32'	9.40	II P	F
29	4h48m	29°46'	6.50	II	M
30	4h54m	66°21'	4.30	II	VF
31	4h56m	30°33'	6.80	I	M
32	5h02m	44°16'	9.12	I-II	F
33	5h07m	–3°20'	10.12	I	BR
34	5h16m	34°19'	5.80	I	BR
35	5h15m	13°01'	8.70	I	M
36	5h15m	–8°12'	0.15	II	M
37	5h18m	13°25'	8.20	I	BR
38	5h22m	8°26'	5.77	II	M
39	5h25m	32°49'	9.50	II	F
40	5h26m	6°35'	9.00	I	M
41	5h29m	23°42'	9.30	I	VF
42	5h31m	–5°42'	9.46	II	F
43	5h32m	6°03'	9.00	I	BR
44	5h32m	–4°31'	8.11	II	F
45	5h37m	31°51'	9.50	I	BR
46	5h36m	–6°43'	9.30	I	VBR
47	5h39m	23°19'	7.80	II	VF
48	5h38m	–0°11'	7.46	II	F
49	5h39m	4°07'	4.50	I	B
50	5h40m	–1°28'	7.67	I	B
51	5h41m	–1°30'	6.98	I	VBR
52	5h42m	–2°16'	7.82	I	VBR
53	5h41m	–10°19'	9.50	I	VF
54	5h42m	–6°15'	9.50	I	BR
55	5h42m	–8°08'	8.70	I	F
56	5h44m	16°22'	9.00	I	BR
57	5h43m	–2°19'	8.30	I	VBR
58	5h44m	–8°43'	9.50	I	VF
59	5h47m	0°05'	10.49	I	VBR
60	5h47m	0°18'	9.50	I	BR
61	5h53m	5°10'	8.60	II	VF
62	5h54m	1°40'	9.50	I	M
63	5h56m	1°52'	9.20	I	F
64	5h58m	–14°04'	10.00	I	M
65	6h05m	30°31'	9.50	I	BR
66	6h03m	–9°43'	9.30	I	MF
67	6h08m	–6°24'	9.50	I	VB
68	6h08m	–6°14'	9.00	I	M
69	6h08m	–6°22'	9.00	I	M
70	6h08m	–5°20'	8.50	I-II	F
71	6h10m	14°05'	9.00	II	F
72	6h10m	–6°20'	9.00	I	VBR
73	6h11m	–6°13'		I	BR
74	6h12m	–6°09'	9.70	I	BR
75	6h19m	23°16'	7.50	I	M
76	6h12m	13°41'	9.30	II	M

vdB number	Right ascension (2000.0)	Declination (2000.0)	Magnitude	Type	Surface brightness
77	6h31m	9°49'	9.50	I-II	M
78	6h31m	9°47'	8.80	I-II	BR
79	6h32m	10°20'	9.40	II	F
80	6h31m	–9°39'	8.60	I	M
81	6h33m	7°20'	4.48	I	M
82	6h33m	10°19'	8.74	I	BR
83	6h40m	–27°15'	9.50	I	BR
84	3h49m	–26°58'		I	M
85	6h47m	1°19'	9.30	I-II	M
86	6h57m	–10°17'	8.20	II	M
87	7h00m	–8°52'	8.80	I	BR
88	7h02m	–11°18'	7.20	I	F
89	7h03m	–12°14'	9.50	I	VF
90	7h03m	–11°27'	8.70	I	F
91	7h03m	–10°42'	9.40	II	F
92	7h04m	–11°35'	9.20	I	VF
93	7h04m	–10°27'	6.97	I	VBR
94	7h05m	–12°20'	8.50	I	VBR
95	7h07m	–11°18'	5.38	II	F
96	7h20m	–24°01'	9.20	I	M
97	7h31m	–16°54'	9.90	I-II	M
98	7h37m	–25°20'	7.30	I	M
99	15h59m	–26°07'	2.89	II	M
100	16h12m	–19°28'	4.03	II	M
101	16h19m	–20°13'	6.37	I	F
102	16h20m	–20°03'	8.08	I	BR
103	16h21m	–20°07'	7.30	I	M
104	16h21m	–25°36'	2.89	I	M
105	16h25m	–24°28'	7.89	I	M
106	16h26m	–23°27'	4.61	I	BR
107	16h29m	–26°26'	0.92	I	M
108	16h30m	–25°07'	4.78	I	M
109	16h42m	–17°45'	5.30	II	VF
110	17h16m	–21°02'	9.40	I	M
111	17h19m	6°05'	6.49	II	M
112	17h54m	–5°37'	9.60	II	F
113	18h09m	–21°27'	6.80	II	F
114	18h09m	–18°23'	9.10	I	F
115	18h09m	–23°26'	9.30	I	BR
116	18h11m	–17°44'	9.50	I	F
117	18h15m	–17°22'	9.10	I	M
118	18h17m	–19°47'	9.40	I	BR
119	18h17m	–19°52'	9.40	I	VBR
120	18h17m	–16°56'	8.80	I	M
121	18h20m	–17°00'	9.43	I-II	F
122	18h25m	–13°39'	9.30	I	M
123	18h30m	1°13'	9.10	I	M
124	18h31m	–10°48'	5.50	I	BR
125	19h26m	15°33'	8.00	I	VF
126	19h26m	22°45'	8.30	I	BR
127	19h47m	18°32'	3.82	II P	F
128	20h05m	32°13'	5.63	I	M
129	20h11m	–0°49'	3.24	II	F
130	20h18m	39°21'	9.50	I	BR
131	20h24m	42°18'	9.10	I	BR
132	20h25m	42°23'	8.70	I	BR
133	20h31m	36°56'	6.19	I	BR
134	20h30m	48°57'	4.95	I-II	F
135	20h37m	32°27'	8.60	II	F
136	20h38m	42°04'	7.80	II	VF
137	20h56m	47°25'	5.69	II	VBR
138	20h57m	48°18'	8.28	I	F
139	21h02m	68°10'	6.80	I	VBR
140	21h17m	58°37'	6.41	I-II	M
141	21h16m	68°16'	9.40	I	F
142	21h37m	57°30'	8.80	I	M
143	21h37m	68°11'	8.30	I	BR
144	21h41m	54°52'	6.00	I	VF
145	21h44m	48°53'	7.40	I	M U
146	21h43m	66°07'	9.40	I	BR
147	21h53m	47°14'	9.50	I	M
148	22h07m	56°14'	8.70	II	F
149	22h09m	72°53'	9.10	I	M
150	22h10m	73°23'	8.40	I	M
151	22h14m	39°43'	4.49	II U	F
152	22h13m	70°15'	8.80	I	VBR
153	22h23m	62°42'	9.40	I	M
154	22h31m	65°28'	8.90	II	F
155	22h53m	62°09'	9.29	I	M
156	23h02m	42°20'	3.62	II	F
157	23h02m	72°44'	7.80	P	F
158	23h38m	48°30'	9.00	I	M

Key: Type I = star embedded in the nebulosity; Type II = star outside the nebulosity; P = peculiar; BR = bright; F = faint; M = moderate; VBR = very bright; VF = very faint; U = uncertain.