

Location Lat. : 25°.10 N  
 Long. : 121°.52 E

# 太陽黑子觀測月報

Taipei Astronomical Museum  
 Shi-Lin, Taipei

Telescope : 20cm Refractor f=9.0  
 Magnification : 64 Projection

Jan. 2010

Taiwan 111  
 Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |      | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |       |     |     | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|------|----------------|-----|--------------|-----|--------------|-----|-------------------------|-------|-----|-----|---|-----|--|----------------------------|--------------|
|            |                             | 全日面   |      | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |       |     |     |   |     |  |                            |              |
|            |                             | g     | f    | g              | f   | g            | f   | g            | f   | W                       | C     | N   | S   | N   | S   |  |                            |              |
| 1          | 02:22                       | 1     | 11   | 0              | 0   | 0            | 0   | 1            | 11  | 21                      | 110   | 0   | 0   | 0   | 120 | 0                                      | 4                          |              |
| 2          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 3          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 4          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 5          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 6          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 7          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 8          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 9          |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | None         |
| 10         | 02:52                       | 1     | 14   | 0              | 0   | 1            | 14  | 0            | 0   | 24                      | 140   | 0   | 1   | 84  | 0   | 0                                      | 4                          |              |
| 11         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 12         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 13         | 02:30                       | 1     | 43   | 0              | 0   | 0            | 0   | 1            | 43  | 53                      | 430   | 0   | 0   | 0   | 468 | 0                                      | 4                          |              |
| 14         | 02:38                       | 1     | 45   | 0              | 0   | 1            | 45  | 0            | 0   | 55                      | 450   | 0   | 1   | 504   | 0   | 0                                      | 3                          |              |
| 15         | 02:27                       | 1     | 28   | 0              | 0   | 1            | 28  | 0            | 0   | 38                      | 280   | 0   | 1   | 463   | 0   | 0                                      | 3                          |              |
| 16         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | None         |
| 17         | 03:45                       | 1     | 11   | 0              | 0   | 1            | 11  | 0            | 0   | 21                      | 110   | 0   | 1   | 239   | 0   | 0                                      | 3                          |              |
| 18         | 01:30                       | 1     | 8    | 0              | 0   | 1            | 8   | 0            | 0   | 18                      | 80    | 0   | 1   | 230   | 0   | 0                                      | 4                          |              |
| 19         | 01:25                       | 0     | 0    | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0     | 0   | 0   | 0   | 0   | 0                                      | 4                          |              |
| 20         | 01:25                       | 0     | 0    | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0     | 0   | 0   | 0   | 0   | 0                                      | 3                          |              |
| 21         | 03:54                       | 1     | 13   | 0              | 0   | 0            | 0   | 1            | 13  | 23                      | 130   | 0   | 0   | 0   | 66  | 0                                      | 4                          |              |
| 22         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 23         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 24         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 25         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Rain         |
| 26         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Cloud        |
| 27         | 02:18                       | 2     | 8    | 2              | 8   | 0            | 0   | 2            | 8   | 28                      | 82    | 28  | 80  | 0   | 43  | 1                                      | 5                          |              |
| 28         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | Cloud        |
| 29         | 08:02                       | 1     | 2    | 0              | 0   | 0            | 0   | 1            | 2   | 12                      | 20    | 0   | 0   | 0   | 6   | 1                                      | 4                          |              |
| 30         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | None         |
| 31         |                             |       |      |                |     |              |     |              |     |                         |       |     |     |   |     |  |                            | None         |
| Mean No.   |                             | 0.92  | 15.3 | 0.17           | 0.7 | 0.42         | 8.8 | 0.50         | 6.4 | 24.4                    | 152.7 | 2.3 | 7.1 | 127   | 59  | Obs. Days: 12                          |                            |              |



Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Mar. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |      | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |       |      |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|------|----------------|-----|--------------|-----|--------------|-----|-------------------------|-------|------|------|---|-----|--|----------------------------|--------------|
|            |                             | 全日面   |      | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |       |      |      |   |     |  |                            |              |
|            |                             | g     | f    | g              | f   | g            | f   | g            | f   | W                       | C     | N    | S    | N   | S   |  |                            |              |
| 1          | 02:55                       | 2     | 5    | 2              | 5   | 1            | 4   | 1            | 1   | 25                      | 52    | 25   | 51   | 3   | 2   | 1                                      | 4                          |              |
| 2          |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 3          | 02:25                       | 3     | 8    | 1              | 2   | 1            | 2   | 2            | 6   | 38                      | 81    | 12   | 21   | 11  | 7   | 1                                      | 3                          |              |
| 4          | 03:00                       | 3     | 11   | 0              | 0   | 1            | 2   | 2            | 9   | 41                      | 110   | 0    | 1    | 10  | 16  | 1                                      | 3                          |              |
| 5          | 06:42                       | 4     | 5    | 1              | 1   | 1            | 1   | 3            | 4   | 45                      | 51    | 11   | 11   | 2   | 18  | 4                                      | 4                          |              |
| 6          |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Cloud        |
| 7          |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 8          |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 9          |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 10         | 04:00                       | 0     | 0    | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0     | 0    | 0    | 0   | 0   | 0                                      | 3                          |              |
| 11         | 02:22                       | 2     | 16   | 1              | 8   | 1            | 8   | 1            | 8   | 36                      | 161   | 18   | 81   | 20  | 7   | 0                                      | 4                          |              |
| 12         | 01:40                       | 2     | 26   | 1              | 6   | 1            | 20  | 1            | 6   | 46                      | 261   | 16   | 61   | 131   | 3   | 0                                      | 4                          |              |
| 13         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 14         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Cloud        |
| 15         | 03:05                       | 2     | 27   | 2              | 27  | 2            | 27  | 0            | 0   | 47                      | 272   | 47   | 272  | 311   | 0   | 1                                      | 3                          |              |
| 16         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 17         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Cloud        |
| 18         | 02:38                       | 2     | 6    | 0              | 0   | 2            | 6   | 0            | 0   | 26                      | 60    | 0    | 2    | 19  | 0   | 2                                      | 3                          |              |
| 19         | 02:36                       | 2     | 2    | 0              | 0   | 2            | 2   | 0            | 0   | 22                      | 20    | 0    | 2    | 19  | 0   | 2                                      | 3                          |              |
| 20         | 02:17                       | 1     | 3    | 1              | 3   | 1            | 3   | 0            | 0   | 13                      | 31    | 13   | 31   | 14  | 0   | 0                                      | 3                          |              |
| 21         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Cloud        |
| 22         | 03:00                       | 1     | 7    | 1              | 7   | 1            | 7   | 0            | 0   | 17                      | 71    | 17   | 71   | 18  | 0   | 0                                      | 4                          |              |
| 23         | 03:12                       | 1     | 1    | 0              | 0   | 1            | 1   | 0            | 0   | 11                      | 10    | 0    | 1    | 8   | 0   | 1                                      | 4                          |              |
| 24         | 06:26                       | 3     | 10   | 0              | 0   | 3            | 10  | 0            | 0   | 40                      | 100   | 0    | 3    | 294   | 0   | 2                                      | 3                          |              |
| 25         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Rain         |
| 26         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Cloud        |
| 27         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | Cloud        |
| 28         |                             |       |      |                |     |              |     |              |     |                         |       |      |      |   |     |  |                            | None         |
| 29         | 03:20                       | 2     | 12   | 1              | 10  | 1            | 10  | 1            | 2   | 32                      | 121   | 20   | 101  | 285   | 44  | 0                                      | 3                          |              |
| 30         | 01:32                       | 2     | 23   | 1              | 20  | 1            | 20  | 1            | 3   | 43                      | 231   | 30   | 201  | 317   | 117 | 0                                      | 3                          |              |
| 31         | 01:27                       | 2     | 17   | 0              | 0   | 1            | 13  | 1            | 4   | 37                      | 170   | 0    | 1    | 282   | 90  | 0                                      | 4                          |              |
| Mean No.   |                             | 2.00  | 10.5 | 0.71           | 5.2 | 1.24         | 8.0 | 0.76         | 2.5 | 30.5                    | 106.0 | 12.3 | 53.6 | 103   | 18  | Obs. Days: 17                          |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

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Magnification : 64 Projection

# 太陽黑子觀測月報

Apr. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |     | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |      |     |     | Area ( in<br>millionth<br>hemisphere)<br>面積 |    | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|-----|----------------|-----|--------------|-----|--------------|-----|-------------------------|------|-----|-----|---|----|--|----------------------------|--------------|
|            |                             | 全日面   |     | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |      |     |     |   |    |  |                            |              |
|            |                             | g     | f   | g              | f   | g            | f   | g            | f   | W                       | C    | N   | S   | N   | S  |  |                            |              |
| 1          | 01:42                       | 2     | 9   | 1              | 4   | 1            | 5   | 1            | 4   | 29                      | 91   | 14  | 41  | 228   | 55 | 0                                      | 3                          |              |
| 2          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 3          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 4          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 5          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 6          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 7          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 8          |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 9          | 06:20                       | 2     | 3   | 1              | 1   | 1            | 2   | 1            | 1   | 23                      | 31   | 11  | 11  | 26  | 2  | 1                                      | 4                          |              |
| 10         | 03:27                       | 1     | 1   | 1              | 1   | 0            | 0   | 1            | 1   | 11                      | 11   | 11  | 10  | 0   | 2  | 1                                      | 2                          |              |
| 11         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Cloud        |
| 12         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | None         |
| 13         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 14         | 08:20                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 3                          |              |
| 15         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 16         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 17         | 05:05                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 2                          |              |
| 18         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 19         | 02:20                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 4                          |              |
| 20         | 05:55                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 4                          |              |
| 21         | 02:45                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 3                          |              |
| 22         | 03:45                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 3                          |              |
| 23         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 24         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Cloud        |
| 25         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Cloud        |
| 26         | 03:00                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 3                          |              |
| 27         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 28         |                             |       |     |                |     |              |     |              |     |                         |      |     |     |   |    |  |                            | Rain         |
| 29         | 01:35                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 4                          |              |
| 30         | 02:55                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0   | 0   | 0  | 0                                      | 3                          |              |
| Mean No.   |                             | 0.42  | 1.1 | 0.25           | 0.5 | 0.17         | 0.6 | 0.25         | 0.5 | 5.3                     | 11.1 | 3.0 | 5.2 | 21  | 5  | Obs. Days: 12                          |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

May 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |     | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |      |     |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|-----|----------------|-----|--------------|-----|--------------|-----|-------------------------|------|-----|------|---|-----|--|----------------------------|--------------|
|            |                             | 全日面   |     | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |      |     |      |   |     |  |                            |              |
|            |                             | g     | f   | g              | f   | g            | f   | g            | f   | W                       | C    | N   | S    | N   | S   |  |                            |              |
| 1          | 01:35                       | 1     | 3   | 0              | 0   | 1            | 3   | 0            | 0   | 13                      | 30   | 0   | 1    | 11  | 0   | 0                                      | 5                          |              |
| 2          | 05:42                       | 3     | 6   | 1              | 1   | 2            | 5   | 1            | 1   | 36                      | 61   | 11  | 12   | 6   | 2   | 2                                      | 3                          |              |
| 3          | 01:56                       | 3     | 6   | 2              | 2   | 2            | 5   | 1            | 1   | 36                      | 62   | 22  | 22   | 29  | 5   | 2                                      | 4                          |              |
| 4          | 03:03                       | 3     | 7   | 1              | 4   | 1            | 2   | 2            | 5   | 37                      | 71   | 14  | 41   | 2   | 16  | 2                                      | 4                          |              |
| 5          | 02:20                       | 3     | 10  | 1              | 1   | 3            | 10  | 0            | 0   | 40                      | 101  | 11  | 13   | 52  | 0   | 1                                      | 3                          |              |
| 6          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 7          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 8          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 9          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 10         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 11         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 12         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 13         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Cloud        |
| 14         | 03:15                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 3                          |              |
| 15         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Cloud        |
| 16         | 06:53                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 3                          |              |
| 17         | 03:20                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 2                          |              |
| 18         | 02:13                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 4                          |              |
| 19         | 02:27                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 4                          |              |
| 20         | 02:23                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 3                          |              |
| 21         | 02:18                       | 1     | 2   | 0              | 0   | 0            | 0   | 1            | 2   | 12                      | 20   | 0   | 0    | 0   | 6   | 1                                      | 3                          |              |
| 22         | 03:57                       | 1     | 12  | 1              | 12  | 0            | 0   | 1            | 12  | 22                      | 121  | 22  | 120  | 0   | 69  | 0                                      | 3                          |              |
| 23         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 24         | 02:57                       | 1     | 7   | 1              | 7   | 0            | 0   | 1            | 7   | 17                      | 71   | 17  | 70   | 0   | 60  | 0                                      | 3                          |              |
| 25         | 02:15                       | 1     | 4   | 1              | 4   | 0            | 0   | 1            | 4   | 14                      | 41   | 14  | 40   | 0   | 117 | 0                                      | 3                          |              |
| 26         | 02:05                       | 2     | 4   | 1              | 2   | 1            | 2   | 1            | 2   | 24                      | 41   | 12  | 21   | 2   | 84  | 1                                      | 4                          |              |
| 27         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 28         | 02:20                       | 1     | 2   | 0              | 0   | 0            | 0   | 1            | 2   | 12                      | 20   | 0   | 0    | 0   | 53  | 0                                      | 3                          |              |
| 29         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 30         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 31         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| Mean No.   |                             | 1.18  | 3.7 | 0.53           | 1.9 | 0.59         | 1.6 | 0.59         | 2.1 | 15.5                    | 37.6 | 7.2 | 20.0 | 6   | 24  | Obs. Days: 17                          |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Jun. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |     | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |      |     |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|-----|----------------|-----|--------------|-----|--------------|-----|-------------------------|------|-----|------|---|-----|--|----------------------------|--------------|
|            |                             | 全日面   |     | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |      |     |      |   |     |  |                            |              |
|            |                             | g     | f   | g              | f   | g            | f   | g            | f   | W                       | C    | N   | S    | N   | S   |  |                            |              |
| 1          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 2          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 3          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 4          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 5          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 6          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 7          | 08:34                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 3                          |              |
| 8          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 9          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 10         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 11         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 12         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 13         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 14         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 15         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 16         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 17         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Cloud        |
| 18         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Cloud        |
| 19         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 20         | 01:38                       | 1     | 7   | 1              | 7   | 1            | 7   | 0            | 0   | 17                      | 71   | 17  | 71   | 12  | 0   | 0                                      | 3                          |              |
| 21         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 22         | 02:18                       | 1     | 7   | 0              | 0   | 1            | 7   | 0            | 0   | 17                      | 70   | 0   | 1    | 15  | 0   | 0                                      | 3                          |              |
| 23         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Cloud        |
| 24         | 01:15                       | 1     | 4   | 0              | 0   | 1            | 4   | 0            | 0   | 14                      | 40   | 0   | 1    | 14  | 0   | 0                                      | 2                          |              |
| 25         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Rain         |
| 26         | 01:45                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0   | 0                                      | 3                          |              |
| 27         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 28         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | None         |
| 29         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |     |  |                            | Cloud        |
| 30         | 01:35                       | 1     | 2   | 0              | 0   | 0            | 0   | 1            | 2   | 12                      | 20   | 0   | 0    | 0   | 137 | 0                                      | 3                          |              |
| Mean No.   |                             | 0.67  | 3.3 | 0.17           | 1.2 | 0.50         | 3.0 | 0.17         | 0.3 | 10.0                    | 33.5 | 2.8 | 12.2 | 7   | 23  | Obs. Days: 6                           |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Jul. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |      | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |       |     |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|------|----------------|-----|--------------|-----|--------------|-----|-------------------------|-------|-----|------|---|-----|--|----------------------------|--------------|
|            |                             | 全日面   |      | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |       |     |      |   |     |  |                            |              |
|            |                             | g     | f    | g              | f   | g            | f   | g            | f   | W                       | C     | N   | S    | N   | S   |  |                            |              |
| 1          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 2          | 01:55                       | 2     | 4    | 2              | 4   | 1            | 2   | 1            | 2   | 24                      | 42    | 24  | 41   | 2   | 140 | 1                                      | 4                          |              |
| 3          | 01:52                       | 1     | 2    | 1              | 2   | 0            | 0   | 1            | 2   | 12                      | 21    | 12  | 20   | 0   | 124 | 0                                      | 3                          |              |
| 4          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 5          | 01:50                       | 2     | 5    | 0              | 0   | 1            | 3   | 1            | 2   | 25                      | 50    | 0   | 1    | 8   | 51  | 1                                      | 3                          |              |
| 6          | 03:16                       | 2     | 4    | 0              | 0   | 1            | 2   | 1            | 2   | 24                      | 40    | 0   | 1    | 11  | 66  | 1                                      | 3                          |              |
| 7          | 03:10                       | 1     | 2    | 0              | 0   | 0            | 0   | 1            | 2   | 12                      | 20    | 0   | 0    | 0   | 64  | 0                                      | 2                          |              |
| 8          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 9          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 10         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 11         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 12         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 13         | 06:00                       | 1     | 12   | 0              | 0   | 1            | 12  | 0            | 0   | 22                      | 120   | 0   | 1    | 51  | 0   | 0                                      | 4                          |              |
| 14         | 03:02                       | 1     | 11   | 1              | 11  | 1            | 11  | 0            | 0   | 21                      | 111   | 21  | 111  | 76  | 0   | 0                                      | 3                          |              |
| 15         | 06:07                       | 1     | 11   | 1              | 11  | 1            | 11  | 0            | 0   | 21                      | 111   | 21  | 111  | 60  | 0   | 0                                      | 3                          |              |
| 16         | 01:32                       | 1     | 12   | 1              | 12  | 1            | 12  | 0            | 0   | 22                      | 121   | 22  | 121  | 55  | 0   | 0                                      | 4                          |              |
| 17         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 18         | 01:35                       | 1     | 7    | 0              | 0   | 1            | 7   | 0            | 0   | 17                      | 70    | 0   | 1    | 10  | 0   | 0                                      | 4                          |              |
| 19         | 02:00                       | 2     | 4    | 1              | 3   | 2            | 4   | 0            | 0   | 24                      | 41    | 13  | 32   | 8   | 0   | 1                                      | 4                          |              |
| 20         | 02:49                       | 1     | 5    | 0              | 0   | 0            | 0   | 1            | 5   | 15                      | 50    | 0   | 0    | 0   | 59  | 0                                      | 3                          |              |
| 21         | 02:40                       | 2     | 18   | 0              | 0   | 1            | 1   | 1            | 17  | 38                      | 180   | 0   | 1    | 25  | 112 | 0                                      | 3                          |              |
| 22         | 01:52                       | 2     | 32   | 1              | 2   | 1            | 2   | 1            | 30  | 52                      | 321   | 12  | 21   | 2   | 215 | 1                                      | 3                          |              |
| 23         | 01:35                       | 2     | 43   | 1              | 2   | 1            | 2   | 1            | 41  | 63                      | 431   | 12  | 21   | 2   | 200 | 1                                      | 4                          |              |
| 24         | 03:17                       | 2     | 18   | 0              | 0   | 1            | 1   | 1            | 17  | 38                      | 180   | 0   | 1    | 13  | 124 | 1                                      | 4                          |              |
| 25         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 26         | 01:35                       | 2     | 24   | 0              | 0   | 1            | 2   | 1            | 22  | 44                      | 240   | 0   | 1    | 6   | 103 | 0                                      | 3                          |              |
| 27         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| 28         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| 29         | 02:10                       | 1     | 2    | 0              | 0   | 1            | 2   | 0            | 0   | 12                      | 20    | 0   | 1    | 202   | 0   | 0                                      | 4                          |              |
| 30         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 31         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| Mean No.   |                             | 1.50  | 12.0 | 0.50           | 2.6 | 0.89         | 4.1 | 0.61         | 7.9 | 27.0                    | 120.5 | 7.6 | 27.0 | 29  | 70  | Obs. Days: 18                          |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Aug. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |     | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |      |     |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |    | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|-----|----------------|-----|--------------|-----|--------------|-----|-------------------------|------|-----|------|---|----|--|----------------------------|--------------|
|            |                             | 全日面   |     | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |      |     |      |   |    |  |                            |              |
|            |                             | g     | f   | g              | f   | g            | f   | g            | f   | W                       | C    | N   | S    | N   | S  |  |                            |              |
| 1          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | None         |
| 2          | 02:55                       | 1     | 4   | 1              | 4   | 1            | 4   | 0            | 0   | 14                      | 41   | 14  | 41   | 151   | 0  | 0                                      | 4                          |              |
| 3          | 02:02                       | 1     | 5   | 1              | 5   | 1            | 5   | 0            | 0   | 15                      | 51   | 15  | 51   | 233   | 0  | 0                                      | 3                          |              |
| 4          | 02:32                       | 1     | 6   | 1              | 6   | 1            | 6   | 0            | 0   | 16                      | 61   | 16  | 61   | 245   | 0  | 0                                      | 3                          |              |
| 5          | 03:14                       | 3     | 17  | 1              | 3   | 3            | 17  | 0            | 0   | 47                      | 171  | 13  | 33   | 395   | 0  | 0                                      | 3                          |              |
| 6          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | Cloud        |
| 7          | 01:31                       | 4     | 10  | 0              | 0   | 3            | 7   | 1            | 3   | 50                      | 100  | 0   | 3    | 419   | 10 | 1                                      | 3                          |              |
| 8          | 04:00                       | 3     | 11  | 2              | 9   | 2            | 5   | 1            | 6   | 41                      | 112  | 29  | 92   | 393   | 13 | 0                                      | 4                          |              |
| 9          |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | None         |
| 10         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | None         |
| 11         | 02:05                       | 5     | 24  | 1              | 3   | 4            | 22  | 1            | 2   | 74                      | 241  | 13  | 34   | 192   | 6  | 0                                      | 3                          |              |
| 12         | 03:29                       | 4     | 19  | 2              | 12  | 4            | 19  | 0            | 0   | 59                      | 192  | 32  | 124  | 171   | 0  | 0                                      | 3                          |              |
| 13         | 01:25                       | 3     | 10  | 1              | 6   | 3            | 10  | 0            | 0   | 40                      | 101  | 16  | 63   | 107   | 0  | 1                                      | 4                          |              |
| 14         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | None         |
| 15         | 02:06                       | 3     | 23  | 1              | 4   | 3            | 23  | 0            | 0   | 53                      | 231  | 14  | 43   | 71  | 0  | 0                                      | 3                          |              |
| 16         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | Cloud        |
| 17         | 02:35                       | 2     | 9   | 0              | 0   | 1            | 8   | 1            | 1   | 29                      | 90   | 0   | 1    | 15  | 8  | 1                                      | 3                          |              |
| 18         | 05:40                       | 2     | 2   | 0              | 0   | 1            | 1   | 1            | 1   | 22                      | 20   | 0   | 1    | 3   | 8  | 2                                      | 2                          |              |
| 19         | 03:00                       | 1     | 1   | 0              | 0   | 0            | 0   | 1            | 1   | 11                      | 10   | 0   | 0    | 0   | 4  | 1                                      | 4                          |              |
| 20         | 02:56                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0  | 0                                      | 4                          |              |
| 21         | 03:35                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0  | 0                                      | 2                          |              |
| 22         | 03:00                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0  | 0                                      | 4                          |              |
| 23         | 02:50                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0  | 0                                      | 3                          |              |
| 24         | 01:18                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0   | 0    | 0   | 0  | 0                                      | 5                          |              |
| 25         | 01:10                       | 1     | 2   | 0              | 0   | 1            | 2   | 0            | 0   | 12                      | 20   | 0   | 1    | 92  | 0  | 0                                      | 4                          |              |
| 26         | 02:10                       | 1     | 2   | 0              | 0   | 1            | 2   | 0            | 0   | 12                      | 20   | 0   | 1    | 98  | 0  | 0                                      | 3                          |              |
| 27         | 02:35                       | 2     | 4   | 1              | 2   | 1            | 2   | 1            | 2   | 24                      | 41   | 12  | 21   | 125   | 2  | 1                                      | 4                          |              |
| 28         | 01:20                       | 2     | 3   | 1              | 1   | 2            | 3   | 0            | 0   | 23                      | 31   | 11  | 12   | 118   | 0  | 1                                      | 4                          |              |
| 29         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | Rain         |
| 30         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | Rain         |
| 31         |                             |       |     |                |     |              |     |              |     |                         |      |     |      |   |    |  |                            | Rain         |
| Mean No.   |                             | 1.77  | 6.9 | 0.59           | 2.5 | 1.45         | 6.2 | 0.32         | 0.7 | 24.6                    | 69.7 | 8.4 | 26.5 | 129   | 2  | Obs. Days: 22                          |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Sep. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |      | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |       |     |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|------|----------------|-----|--------------|-----|--------------|-----|-------------------------|-------|-----|------|---|-----|--|----------------------------|--------------|
|            |                             | 全日面   |      | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |       |     |      |   |     |  |                            |              |
|            |                             | g     | f    | g              | f   | g            | f   | g            | f   | W                       | C     | N   | S    | N   | S   |  |                            |              |
| 1          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| 2          | 02:38                       | 5     | 12   | 2              | 3   | 5            | 12  | 0            | 0   | 62                      | 122   | 23  | 35   | 189   | 0   | 2                                      | 3                          |              |
| 3          | 02:00                       | 4     | 22   | 1              | 14  | 4            | 22  | 0            | 0   | 62                      | 221   | 24  | 144  | 192   | 0   | 0                                      | 4                          |              |
| 4          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 5          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 6          | 03:07                       | 2     | 19   | 0              | 0   | 2            | 19  | 0            | 0   | 39                      | 190   | 0   | 2    | 64  | 0   | 0                                      | 3                          |              |
| 7          | 01:34                       | 1     | 6    | 0              | 0   | 1            | 6   | 0            | 0   | 16                      | 60    | 0   | 1    | 58  | 0   | 0                                      | 3                          |              |
| 8          | 01:59                       | 1     | 2    | 0              | 0   | 1            | 2   | 0            | 0   | 12                      | 20    | 0   | 1    | 68  | 0   | 0                                      | 3                          |              |
| 9          |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 10         | 02:10                       | 0     | 0    | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0     | 0   | 0    | 0   | 0   | 0                                      | 4                          |              |
| 11         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 12         | 01:25                       | 1     | 3    | 0              | 0   | 0            | 0   | 1            | 3   | 13                      | 30    | 0   | 0    | 0   | 68  | 0                                      | 4                          |              |
| 13         | 02:03                       | 1     | 9    | 0              | 0   | 0            | 0   | 1            | 9   | 19                      | 90    | 0   | 0    | 0   | 53  | 0                                      | 4                          |              |
| 14         | 02:38                       | 1     | 10   | 0              | 0   | 0            | 0   | 1            | 10  | 20                      | 100   | 0   | 0    | 0   | 92  | 0                                      | 3                          |              |
| 15         | 01:27                       | 1     | 11   | 0              | 0   | 0            | 0   | 1            | 11  | 21                      | 110   | 0   | 0    | 0   | 54  | 0                                      | 4                          |              |
| 16         | 01:36                       | 1     | 21   | 0              | 0   | 0            | 0   | 1            | 21  | 31                      | 210   | 0   | 0    | 0   | 48  | 0                                      | 4                          |              |
| 17         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 18         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| 19         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| 20         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Cloud        |
| 21         | 01:32                       | 2     | 9    | 0              | 0   | 0            | 0   | 2            | 9   | 29                      | 90    | 0   | 0    | 0   | 369 | 1                                      | 4                          |              |
| 22         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 23         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 24         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| 25         | 03:03                       | 3     | 27   | 1              | 1   | 2            | 23  | 1            | 4   | 57                      | 271   | 11  | 12   | 279   | 314 | 1                                      | 3                          |              |
| 26         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | None         |
| 27         | 02:16                       | 3     | 21   | 2              | 19  | 2            | 19  | 1            | 2   | 51                      | 212   | 39  | 192  | 351   | 196 | 1                                      | 4                          |              |
| 28         | 02:33                       | 2     | 10   | 1              | 8   | 1            | 8   | 1            | 2   | 30                      | 101   | 18  | 81   | 245   | 105 | 0                                      | 4                          |              |
| 29         | 02:08                       | 3     | 31   | 1              | 16  | 3            | 31  | 0            | 0   | 61                      | 311   | 26  | 163  | 357   | 0   | 0                                      | 4                          |              |
| 30         |                             |       |      |                |     |              |     |              |     |                         |       |     |      |   |     |  |                            | Rain         |
| Mean No.   |                             | 1.94  | 13.3 | 0.50           | 3.8 | 1.31         | 8.9 | 0.63         | 4.4 | 32.7                    | 133.6 | 8.8 | 39.4 | 113   | 81  | Obs. Days: 16                          |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Oct. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole<br>全日面 |       | Central Circle<br>中心區 |     | N.Hemisphere<br>北半球 |     | S.Hemisphere<br>南半球 |     | Relative Number (10g+f)<br>相對數 |       |      |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |     | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|--------------|-------|-----------------------|-----|---------------------|-----|---------------------|-----|--------------------------------|-------|------|------|---|-----|--|----------------------------|--------------|
|            |                             | g            | f     | g                     | f   | g                   | f   | g                   | f   | W                              | C     | N    | S    | N   | S   |  |                            |              |
|            |                             | 1            | 02:55 | 3                     | 22  | 0                   | 0   | 3                   | 22  | 0                              | 0     | 52   | 220  | 0   | 3   |  |                            |              |
| 2          | 01:27                       | 3            | 14    | 1                     | 1   | 3                   | 14  | 0                   | 0   | 44                             | 141   | 11   | 13   | 323   | 0   | 2                                      | 3                          |              |
| 3          | 01:35                       | 2            | 19    | 1                     | 11  | 2                   | 19  | 0                   | 0   | 39                             | 191   | 21   | 112  | 241   | 0   | 0                                      | 4                          |              |
| 4          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Cloud        |
| 5          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Cloud        |
| 6          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Cloud        |
| 7          | 02:10                       | 0            | 0     | 0                     | 0   | 0                   | 0   | 0                   | 0   | 0                              | 0     | 0    | 0    | 0   | 0   | 0                                      | 4                          |              |
| 8          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 9          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Cloud        |
| 10         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Cloud        |
| 11         | 02:30                       | 1            | 4     | 0                     | 0   | 0                   | 0   | 1                   | 4   | 14                             | 40    | 0    | 0    | 0   | 30  | 0                                      | 4                          |              |
| 12         | 01:24                       | 2            | 4     | 0                     | 0   | 1                   | 1   | 1                   | 3   | 24                             | 40    | 0    | 1    | 2   | 18  | 1                                      | 4                          |              |
| 13         | 07:00                       | 1            | 4     | 0                     | 0   | 0                   | 0   | 1                   | 4   | 14                             | 40    | 0    | 0    | 0   | 11  | 0                                      | 4                          |              |
| 14         | 04:35                       | 2            | 8     | 1                     | 6   | 1                   | 2   | 1                   | 6   | 28                             | 81    | 16   | 61   | 72  | 11  | 0                                      | 3                          |              |
| 15         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Cloud        |
| 16         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 17         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 18         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 19         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 20         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 21         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 22         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 23         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | None         |
| 24         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | None         |
| 25         | 01:57                       | 4            | 27    | 2                     | 23  | 3                   | 25  | 1                   | 2   | 67                             | 272   | 43   | 233  | 282   | 108 | 0                                      | 3                          |              |
| 26         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 27         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 28         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 29         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 30         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| 31         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |     |  |                            | Rain         |
| Mean No.   |                             | 2.00         | 11.3  | 0.56                  | 4.6 | 1.44                | 9.2 | 0.56                | 2.1 | 31.3                           | 113.9 | 10.1 | 47.0 | 137   | 20  | Obs. Days: 9                           |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Nov. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole<br>全日面 |       | Central Circle<br>中心區 |     | N.Hemisphere<br>北半球 |     | S.Hemisphere<br>南半球 |     | Relative Number (10g+f)<br>相對數 |       |      |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |    | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|--------------|-------|-----------------------|-----|---------------------|-----|---------------------|-----|--------------------------------|-------|------|------|---|----|--|----------------------------|--------------|
|            |                             | g            | f     | g                     | f   | g                   | f   | g                   | f   | W                              | C     | N    | S    | N   | S  |  |                            |              |
|            |                             | 1            | 03:15 | 1                     | 3   | 0                   | 0   | 1                   | 3   | 0                              | 0     | 13   | 30   | 0   | 1  |  |                            |              |
| 2          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 3          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 4          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 5          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 6          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 7          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 8          |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 9          | 02:35                       | 3            | 8     | 1                     | 1   | 1                   | 1   | 2                   | 7   | 38                             | 81    | 11   | 11   | 4   | 10 | 2                                      | 4                          |              |
| 10         | 01:52                       | 4            | 13    | 1                     | 5   | 2                   | 4   | 2                   | 9   | 53                             | 131   | 15   | 52   | 7   | 8  | 2                                      | 4                          |              |
| 11         | 01:33                       | 3            | 30    | 2                     | 25  | 2                   | 6   | 1                   | 24  | 60                             | 302   | 45   | 252  | 30  | 40 | 1                                      | 3                          |              |
| 12         | 01:45                       | 2            | 22    | 2                     | 22  | 1                   | 10  | 1                   | 12  | 42                             | 222   | 42   | 221  | 18  | 11 | 0                                      | 2                          |              |
| 13         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 14         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 15         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 16         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 17         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 18         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 19         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 20         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 21         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 22         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | None         |
| 23         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 24         | 01:24                       | 1            | 3     | 1                     | 3   | 1                   | 3   | 0                   | 0   | 13                             | 31    | 13   | 31   | 44  | 0  | 0                                      | 4                          |              |
| 25         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Rain         |
| 26         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | Cloud        |
| 27         | 01:50                       | 1            | 2     | 0                     | 0   | 1                   | 2   | 0                   | 0   | 12                             | 20    | 0    | 1    | 9   | 0  | 0                                      | 4                          |              |
| 28         | 05:53                       | 2            | 14    | 1                     | 9   | 1                   | 9   | 1                   | 5   | 34                             | 141   | 19   | 91   | 8   | 8  | 0                                      | 2                          |              |
| 29         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | None         |
| 30         |                             |              |       |                       |     |                     |     |                     |     |                                |       |      |      |   |    |  |                            | None         |
| Mean No.   |                             | 2.13         | 11.9  | 1.00                  | 8.1 | 1.25                | 4.8 | 0.88                | 7.1 | 33.1                           | 119.8 | 18.1 | 82.5 | 19  | 9  | Obs. Days: 8                           |                            |              |

Location Lat. : 25°10 N

Long. : 121°52 E

Telescope : 20cm Refractor f=9.0

Magnification : 64 Projection

# 太陽黑子觀測月報

Dec. 2010

Taipei Astronomical Museum

Shi-Lin, Taipei

Taiwan 111

Republic of China

| Date<br>日期 | Obs. Time<br>(U.T.)<br>觀測時間 | Whole |     | Central Circle |     | N.Hemisphere |     | S.Hemisphere |     | Relative Number (10g+f) |      |      |      | Area ( in<br>millionth<br>hemisphere)<br>面積 |    | Small<br>Type<br>Groups<br>A.B.型<br>群數 | Seeing<br>視相<br>Q<br>(1-5) | Remark<br>備考 |
|------------|-----------------------------|-------|-----|----------------|-----|--------------|-----|--------------|-----|-------------------------|------|------|------|---|----|--|----------------------------|--------------|
|            |                             | 全日面   |     | 中心區            |     | 北半球          |     | 南半球          |     | 相對數                     |      |      |      |   |    |  |                            |              |
|            |                             | g     | f   | g              | f   | g            | f   | g            | f   | W                       | C    | N    | S    | N   | S  |  |                            |              |
| 1          | 02:14                       | 1     | 30  | 1              | 30  | 1            | 30  | 0            | 0   | 40                      | 301  | 40   | 301  | 260   | 0  | 0                                      | 4                          |              |
| 2          | 03:10                       | 2     | 24  | 0              | 0   | 2            | 24  | 0            | 0   | 44                      | 240  | 0    | 2    | 442   | 0  | 0                                      | 4                          |              |
| 3          |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | Cloud        |
| 4          | 03:41                       | 4     | 10  | 1              | 4   | 4            | 10  | 0            | 0   | 50                      | 101  | 14   | 44   | 521   | 0  | 1                                      | 4                          |              |
| 5          |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | None         |
| 6          | 01:15                       | 3     | 11  | 1              | 5   | 3            | 11  | 0            | 0   | 41                      | 111  | 15   | 53   | 549   | 0  | 0                                      | 4                          |              |
| 7          |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | Cloud        |
| 8          | 01:45                       | 2     | 8   | 0              | 0   | 2            | 8   | 0            | 0   | 28                      | 80   | 0    | 2    | 542   | 0  | 0                                      | 3                          |              |
| 9          | 01:50                       | 3     | 7   | 1              | 4   | 3            | 7   | 0            | 0   | 37                      | 71   | 14   | 43   | 485   | 0  | 1                                      | 4                          |              |
| 10         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | None         |
| 11         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | None         |
| 12         | 08:06                       | 3     | 6   | 2              | 4   | 3            | 6   | 0            | 0   | 36                      | 62   | 24   | 43   | 561   | 0  | 1                                      | 4                          |              |
| 13         | 01:37                       | 3     | 8   | 1              | 3   | 3            | 8   | 0            | 0   | 38                      | 81   | 13   | 33   | 523   | 0  | 1                                      | 3                          |              |
| 14         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | Rain         |
| 15         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | Rain         |
| 16         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | Rain         |
| 17         | 02:35                       | 1     | 1   | 1              | 1   | 1            | 1   | 0            | 0   | 11                      | 11   | 11   | 11   | 3   | 0  | 1                                      | 3                          |              |
| 18         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | None         |
| 19         | 03:30                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0    | 0    | 0   | 0  | 0                                      | 4                          |              |
| 20         | 02:04                       | 1     | 2   | 1              | 2   | 1            | 2   | 0            | 0   | 12                      | 21   | 12   | 21   | 2   | 0  | 1                                      | 4                          |              |
| 21         | 05:50                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0    | 0    | 0   | 0  | 0                                      | 3                          |              |
| 22         | 03:14                       | 0     | 0   | 0              | 0   | 0            | 0   | 0            | 0   | 0                       | 0    | 0    | 0    | 0   | 0  | 0                                      | 3                          |              |
| 23         | 02:00                       | 1     | 1   | 1              | 1   | 1            | 1   | 0            | 0   | 11                      | 11   | 11   | 11   | 2   | 0  | 1                                      | 3                          |              |
| 24         | 01:49                       | 2     | 4   | 0              | 0   | 0            | 0   | 2            | 4   | 24                      | 40   | 0    | 0    | 0   | 7  | 2                                      | 4                          |              |
| 25         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | Rain         |
| 26         | 06:33                       | 2     | 11  | 1              | 8   | 1            | 8   | 1            | 3   | 31                      | 111  | 18   | 81   | 7   | 16 | 0                                      | 3                          |              |
| 27         | 02:20                       | 2     | 11  | 2              | 11  | 2            | 11  | 0            | 0   | 31                      | 112  | 31   | 112  | 8   | 0  | 0                                      | 5                          |              |
| 28         | 07:40                       | 1     | 5   | 1              | 5   | 1            | 5   | 0            | 0   | 15                      | 51   | 15   | 51   | 14  | 0  | 0                                      | 2                          |              |
| 29         | 01:48                       | 2     | 8   | 1              | 7   | 1            | 7   | 1            | 1   | 28                      | 81   | 17   | 71   | 9   | 3  | 1                                      | 4                          |              |
| 30         |                             |       |     |                |     |              |     |              |     |                         |      |      |      |   |    |  |                            | None         |
| 31         | 01:47                       | 4     | 9   | 0              | 0   | 3            | 8   | 1            | 1   | 49                      | 90   | 0    | 3    | 193   | 2  | 2                                      | 3                          |              |
| Mean No.   |                             | 1.85  | 7.8 | 0.75           | 4.3 | 1.60         | 7.4 | 0.25         | 0.5 | 26.3                    | 78.8 | 11.8 | 44.1 | 206   | 1  | Obs. Days: 20                          |                            |              |

此頁不用印