

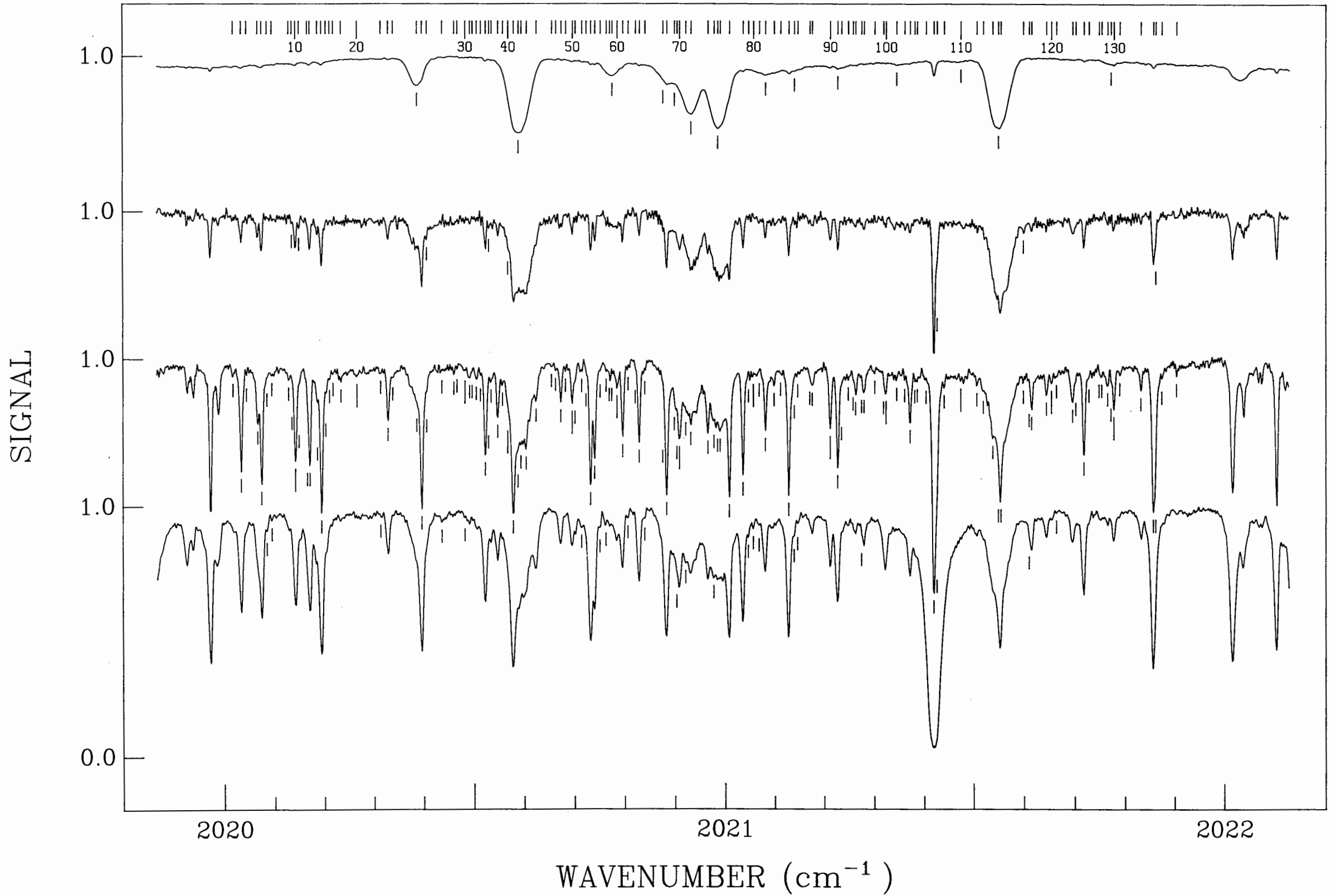
4 JUNE 1990

32.5KM 68.50°

37.08KM 90.64°

37.05KM 92.27°

36.76KM 94.49°



2020-2022 cm<sup>-1</sup>

| Seq. No. | $\nu$ (observed) (cm <sup>-1</sup> ) | Identification                                     | Seq. No. | $\nu$ (observed) (cm <sup>-1</sup> ) | Identification  |
|----------|--------------------------------------|--|----------|--------------------------------------|---|
| 1        | 2020.0185                            | ? + <sup>16</sup> O <sub>3</sub> ?                 | 31       | 2020.4960                            | <sup>16</sup> O <sub>3</sub> ?  |
| 2        | 2020.0346                            | <sup>16</sup> O <sub>3</sub>                       | 32       | 2020.5044                            | ? + <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O   |
| 3        | 2020.0452                            | ?  | 33       | 2020.5124                            | ?   |
| 4        | 2020.0672                            | <sup>16</sup> O <sub>3</sub>                       | 34       | 2020.5221                            | <sup>16</sup> O <sub>3</sub>  |
| 5        | 2020.0750                            | <sup>16</sup> O <sub>3</sub>                       | 35       | 2020.5291                            | <sup>16</sup> O <sub>3</sub> ?  |
| 6        | 2020.0856                            | ?  | 36       | 2020.5332                            | H <sub>2</sub> O  |
| 7        | 2020.1286                            | <sup>16</sup> O <sub>3</sub>                       | 37       | 2020.5468                            | <sup>16</sup> O <sub>3</sub>  |
| 8        | 2020.1350                            | <sup>16</sup> O <sub>3</sub> ?                     | 38       | 2020.5564                            | ?   |
| 9        | 2020.1423                            | <sup>16</sup> O <sub>3</sub>                       | 39       | 2020.5667                            | <sup>16</sup> O <sub>3</sub> ?  |
| 10       | 2020.1495                            | <sup>16</sup> O <sub>3</sub>                       | 40       | 2020.5778                            | <sup>16</sup> O <sub>3</sub> + CO <sub>2</sub> ? + <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O? |
| 11       | 2020.1660                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O    | 41       | 2020.5871                            | solar CO  |
| 12       | 2020.1711                            | <sup>16</sup> O <sub>3</sub>                       | 42       | 2020.5928                            | <sup>16</sup> O <sub>3</sub> ?  |
| 13       | 2020.1865                            | <sup>16</sup> O <sub>3</sub>                       | 43       | 2020.6034                            | <sup>16</sup> O <sub>3</sub>  |
| 14       | 2020.1948                            | <sup>16</sup> O <sub>3</sub>                       | 44       | 2020.6229                            | CO <sub>2</sub> + <sup>16</sup> O <sub>3</sub> ?  |
| 15       | 2020.2035                            | <sup>16</sup> O <sub>3</sub>                       | 45       | 2020.6538                            | <sup>16</sup> O <sub>3</sub> ?  |
| 16       | 2020.2108                            | <sup>16</sup> O <sub>3</sub> ?                     | 46       | 2020.6617                            | <sup>16</sup> O <sub>3</sub> ?  |
| 17       | 2020.2178                            | <sup>16</sup> O <sub>3</sub> ?                     | 47       | 2020.6723                            | <sup>16</sup> O <sub>3</sub>  |
| 18       | 2020.2338                            | <sup>16</sup> O <sub>3</sub>                       | 48       | 2020.6812                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O?, <sup>16</sup> O <sub>3</sub> ?                    |
| 19       | 2020.2664                            | <sup>16</sup> O <sub>3</sub> ?                     | 49       | 2020.6945                            | <sup>16</sup> O <sub>3</sub>  |
| 20       | 2020.3135                            | ?  | 50       | 2020.7001                            | ?   |
| 21       | 2020.3284                            | <sup>16</sup> O <sub>3</sub>                       | 51       | 2020.7134                            | <sup>16</sup> O <sub>3</sub>  |
| 22       | 2020.3379                            | ?  | 52       | 2020.7221                            | <sup>16</sup> O <sub>3</sub> ?  |
| 23       | 2020.3861                            | solar CO, <sup>16</sup> O <sub>3</sub> ?           | 53       | 2020.7314                            | <sup>16</sup> O <sub>3</sub>  |
| 24       | 2020.3961                            | <sup>16</sup> O <sub>3</sub>                       | 54       | 2020.7396                            | <sup>16</sup> O <sub>3</sub> + CO <sub>2</sub> ?  |
| 25       | 2020.4058                            | <sup>16</sup> O <sub>3</sub> ?                     | 55       | 2020.7506                            | ?   |
| 26       | 2020.4363                            | CO <sub>2</sub> ? + <sup>16</sup> O <sub>3</sub> ? | 56       | 2020.7624                            | ?   |
| 27       | 2020.4599                            | <sup>16</sup> O <sub>3</sub>                       | 57       | 2020.7705                            | ?   |
| 28       | 2020.4663                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O?   | 58       | 2020.7719                            | solar CO  |
| 29       | 2020.4820                            | CO <sub>2</sub> ?                                  | 59       | 2020.7839                            | <sup>16</sup> O <sub>3</sub> , CO   |
| 30       | 2020.4912                            | <sup>16</sup> O <sub>3</sub>                       | 60       | 2020.7952                            | <sup>16</sup> O <sub>3</sub>  |

2020-2022 cm<sup>-1</sup> (continued)

| Seq. No. | $\nu$ (observed) (cm <sup>-1</sup> ) | Identification   | Seq. No. | $\nu$ (observed) (cm <sup>-1</sup> ) | Identification   |
|----------|--------------------------------------|--|----------|--------------------------------------|--|
| 61       | 2020.8060                            | <sup>16</sup> O <sub>3</sub>   | 91       | 2021.2572                            | ?  |
| 62       | 2020.8206                            | ?  | 92       | 2021.2622                            | <sup>16</sup> O <sub>3</sub>   |
| 63       | 2020.8286                            | <sup>16</sup> O <sub>3</sub>   | 93       | 2021.2747                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O                                |
| 64       | 2020.8398                            | <sup>16</sup> O <sub>3</sub>   | 94       | 2021.2783                            | <sup>16</sup> O <sub>3</sub>   |
| 65       | 2020.8752                            | solar CO   | 95       | 2021.3004                            | <sup>16</sup> O <sub>3</sub> ?   |
| 66       | 2020.8828                            | <sup>16</sup> O <sub>3</sub>   | 96       | 2021.3187                            | ?  |
| 67       | 2020.8994                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O + solar CO                     | 97       | 2021.3222                            | CO <sub>2</sub>  |
| 68       | 2020.9015                            | <sup>16</sup> O <sub>3</sub>   | 98       | 2021.3439                            | solar CO?  |
| 69       | 2020.9081                            | <sup>16</sup> O <sub>3</sub>   | 99       | 2021.3599                            | CO?  |
| 70       | 2020.9207                            | <sup>16</sup> O <sub>3</sub> ?   | 100      | 2021.3707                            | <sup>16</sup> O <sub>3</sub>   |
| 71       | 2020.9309                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O + solar CO                     | 101      | 2021.3804                            | <sup>16</sup> O <sub>3</sub> ?   |
| 72       | 2020.9647                            | <sup>16</sup> O <sub>3</sub>   | 102      | 2021.3848                            | <sup>16</sup> O <sub>3</sub> ?   |
| 73       | 2020.9768                            | <sup>16</sup> O <sub>3</sub> ?   | 103      | 2021.4030                            | ?  |
| 74       | 2020.9844                            | solar CO   | 104      | 2021.4187                            | CO <sub>2</sub> , <sup>16</sup> O <sub>3</sub>                                 |
| 75       | 2020.9885                            | ?  | 105      | 2021.4252                            | <sup>16</sup> O <sub>3</sub>   |
| 76       | 2021.0076                            | <sup>16</sup> O <sub>3</sub>   | 106      | 2021.4395                            | <sup>16</sup> O <sub>3</sub>   |
| 77       | 2021.0353                            | <sup>16</sup> O <sub>3</sub>   | 107      | 2021.4730                            | <sup>16</sup> O <sub>3</sub> ? + solar CO?                                     |
| 78       | 2021.0463                            | <sup>16</sup> O <sub>3</sub> ?   | 108      | 2021.5057                            | <sup>16</sup> O <sub>3</sub>   |
| 79       | 2021.0560                            | <sup>16</sup> O <sub>3</sub> ?   | 109      | 2021.5185                            | <sup>16</sup> O <sub>3</sub> ?   |
| 80       | 2021.0676                            | ?  | 110      | 2021.5373                            | <sup>16</sup> O <sub>3</sub> ?   |
| 81       | 2021.0800                            | <sup>16</sup> O <sub>3</sub> + solar Si I                                      | 111      | 2021.5502                            | solar CO   |
| 82       | 2021.0975                            | <sup>16</sup> O <sub>3</sub> , <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O | 112      | 2021.5520                            | <sup>16</sup> O <sub>3</sub>   |
| 83       | 2021.1273                            | <sup>16</sup> O <sub>3</sub>   | 113      | 2021.5982                            | <sup>16</sup> O <sub>3</sub>   |
| 84       | 2021.1385                            | <sup>16</sup> O <sub>3</sub> ? + solar CO                                      | 114      | 2021.6098                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O?                               |
| 85       | 2021.1703                            | <sup>16</sup> O <sub>3</sub>   | 115      | 2021.6145                            | <sup>16</sup> O <sub>3</sub>   |
| 86       | 2021.1747                            | <sup>16</sup> O <sub>3</sub> + <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O | 116      | 2021.6432                            | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O                                |
| 87       | 2021.2115                            | <sup>16</sup> O <sub>3</sub>   | 117      | 2021.6530                            | ? + <sup>16</sup> O <sub>3</sub>   |
| 88       | 2021.2266                            | <sup>16</sup> O <sub>3</sub> + solar CO  | 118      | 2021.6950                            | <sup>16</sup> O <sub>3</sub> + <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O |
| 89       | 2021.2342                            | <sup>16</sup> O <sub>3</sub> ?   | 119      | 2021.7013                            | ?  |
| 90       | 2021.2477                            | <sup>16</sup> O <sub>3</sub> ?   | 120      | 2021.7171                            | <sup>16</sup> O <sub>3</sub>   |

2020-2022 cm<sup>-1</sup> (continued)

| Seq.<br>No. | $\nu$ (observed)<br>(cm <sup>-1</sup> ) | Identification  |
|-------------|---|---|
| 121         | 2021.7269                               | <sup>16</sup> O <sub>3</sub> ?  |
| 122         | 2021.7472                               | ?   |
| 123         | 2021.7518                               | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O? + <sup>16</sup> O <sub>3</sub> ? |
| 124         | 2021.7638                               | <sup>16</sup> O <sub>3</sub>  |
| 125         | 2021.7706                               | ? + solar CO  |
| 126         | 2021.7766                               | <sup>16</sup> O <sub>3</sub>  |
| 127         | 2021.7883                               | ?   |
| 128         | 2021.8309                               | <sup>16</sup> O <sup>18</sup> O <sup>16</sup> O                                   |
| 129         | 2021.8563                               | <sup>16</sup> O <sub>3</sub>  |
| 130         | 2021.8610                               | <sup>16</sup> O <sub>3</sub>  |
| 131         | 2021.8734                               | <sup>16</sup> O <sub>3</sub> ?  |
| 132         | 2021.9029                               | ?   |