been asked by visiting astronomers at La Silla for these values obtained at given dates. We have therefore offered the editor of the *Messenger* to publish some of these results in the journal. This should be possible, provided that not too much of the valuable space is taken up by these data.

In the table, which covers the last four months of 1989, we present in a concise form the mean monochromatic extinction coefficients measured by the M + D technique during the nights beginning on the given dates. The second line gives the standard deviations over the variations of each value during the night and provides a rough estimate of the stability of the transparency at that time.

The frequency of M + D nights in this table is fairly irregular; no attempt should, however, be made to interpolate between non-consecutive nights. Readers who would like to have more detailed information (for example evolution of the extinction over a given night) may contact me.

Monochromatic Extinction Coefficients (La Silla) at 3464, 4015, 4227, 4476, 5395, 5488, 5807 Å.

Date	U σU	B1 σB1	B σB	B2 σB2	V1 σV1	V σV	G σG
8. 9.89	.6013	.3083	.2509	.2064	.1327	.1355	.1230
	.0063	.0064	.0057	.0051	.0058	.0046	.0063
14. 9.89	.5909	.2988	.2415	.2032	.1301	.1303	.1186
	.0058	.0064	.0060	.0059	.0064	.0049	.0079
15. 9.89	.5967	.3095	.2476	.2102	.1338	.1345	.1237
	.0075	.0052	.0047	.0050	.0050	.0041	.0067
16. 9.89	.5921	.3007	.2456	.2047	.1272	.1323	.1233
	.0053	.0059	.0058	.0057	.0059	.0048	.0069
18. 9.89	.6102	.3168	.2513	.2102	.1373	.1362	.1230
	.0047	.0045	.0043	.0058	.0048	.0031	.0081
23. 9.89	.6258	.3302	.2666	.2260	.1458	.1493	.1310
	.0060	.0046	.0046	.0040	.0036	.0022	.0058
24. 9.89	.5893	.3026	.2454	.2060	.1269	.1274	.1180
	.0048	.0032	.0027	.0025	.0033	.0010	.0046
25. 9.89	.6092	.3191	.2624	.2230	.1386	.1414	.1278
	.0057	.0056	.0058	.0057	.0059	.0050	.0070
27. 9.89	.6194	.3267	.2674	.2225	.1437	.1458	.1321
	.0083	.0050	.0062	.0036	.0040	.0030	.0047
20.10.89	.5958	.3084	.2515	.2107	.1317	.1339	.1227
	.0038	.0037	.0027	.0030	.0019	.0015	.0028
19.11.89	.6173	.3257	.2663	.2171	.1351	.1337	.1231
	.0047	.0038	.0036	.0040	.0025	.0020	.0036
20.11.89	.6208	.3279	.2690	.2238	.1362	.1368	.1217
	.0036	.0028	.0026	.0026	.0026	.0020	.0041
30.11.89	.5993	.3116	.2507	.2015	.1368	.1287	.1192
	.0048	.0028	.0029	.0020	.0025	.0009	.0018
2.12.89	.6061	.3135	.2547	.2131	.1289	.1251	.1184
	.0068	.0045	.0050	.0047	.0028	.0027	.0031
3.12.89	.5993	.3030	.2468	.2029	.1255	.1197	.1127
	.0075	.0039	.0035	.0035	.0033	.0024	.0032
6.12.89	.5980	.3124	.2491	.2088	.1315	.1265	.1181
	.0034	.0027	.0024	.0027	.0030	.0024	.0032
11.12.89	.6945	.3179	.2578	.2111	.1334	.1293	.1209
	.0070	.0047	.0042	.0050	.0041	.0039	.0042
21.12.89	.6803	.3777	.3145	.2683	.1697	.1723	.1554
	.0095	.0092	.0090	.0094	.0091	.0088	.0096
22.12.89	.6424	.3484	.2868	.2391	.1535	.1505	.1405
	.0138	.0111	.0106	.0098	.0090	.0088	.0096
23.12.89	.6273	.3389	.2770	.2310	.1425	.1436	.1257
	.0084	.0073	.0062	.0061	.0059	.0057	.0073
24.12.89	.7070	.4019	.3353	.2877	.1901	.1905	.1735
	.0051	.0042	.0041	.0036	.0036	.0032	.0035
30.12.89	.7231	.4134	.3446	.2993	.2008	.1969	.1792
	.0109	.0079	.0075	.0072	.0068	.0066	.0077
31.12.89	.7005	.3957	.3270	.2823	.1862	.1845	.1698
	.0143	.0126	.0116	.0113	.0111	.0108	.0116

MIDAS Memo

ESO Image Processing Group

1. Application Developments

Some improvements have been added to the applications related to spectroscopy especially in the LONG SLIT context. All the commands related to the context ECHELLE have now been ported from the old MIDAS into the 90 MAY release and tested on CASPEC data.

A number of irritating problems still exist in many applications either due to unclear documentation or errors in routines often caused by the conversion to portable code. A major effort on validating the basic MIDAS commands will be made in the remaining part of the year. Functionality and documentation of each command will be tested by ESO in-house astronomers in order to find and correct inconsistencies and errors. It is expected that this concentrated effort will significantly improve and stabilize MIDAS and establish a very reliable MIDAS core. The next high priority will be a major revision of the standard reduction packages for major ESO instruments.

2. MIDAS Courses

The first MIDAS course was held in early April on installation of MIDAS on VAX/VMS systems. Eleven system managers from different European MIDAS sites participated in the course which took one day and a half. In addition to a detailed discussion of an actual installation on a VAXstation 3100 with VMS 5.3 and DECwindows, the course covered the general structure of MIDAS and special costumization of the system for individual user sites.

Similar courses for both VAX/VMS and UNIX installations will be made in the future depending on demand. The Image Processing Group also plan to make courses in programming in MIDAS both using the control language and coded application programmes. Such programming courses would however only be started at the very end of 1990 or beginning of 1991.

3. New Positions

Two additional short-term positions (with durations of up to two years) have been allocated to the MIDAS group. They will be used mainly for improvements and developments of new application programmes in MIDAS. Not only will this make it possible to have new algorithms and applications included into MIDAS after a period of limited improvements in this area, it will also at longer term spread the detailed knowledge of MIDAS in the community when people in these positions return to their home institutes.

In addition to these positions, it will be possible to invite people who have made interesting algorithms and programmes to ESO for an implementation of them into the MIDAS environment.

People interested in contributing and/or making new applications to MIDAS may contact the IPG with detailed descriptions.

4. Data Analysis Workshop

The annual ESO/ST-ECF Data Analysis Workshop took place from April 24 to 26. It consisted of a scientific meeting of one day and a half centred on reduction software for spectroscopic data followed by one day with user meetings for both MIDAS and ST-ECF. Approximately 90 people participated in the meeting where more than 20 papers and posters were presented. Proceedings of the scientific session will be published during the course of this year.

Next year the Data Analysis Workshop is expected to take place in April with the emphasis on reduction procedures for direct imaging data.

5. MIDAS Hot-Line Service

The following MIDAS support services can be used to obtain help quickly when problems arise:

- EARN: MIDAS@DGAESO51
- SPAN: ESOMC1::MIDAS
- FAX.: +49-89-3202362, attn.: MIDAS HOT-LINE
- Tlx.: 528 282 22 eso d, attn.: MIDAS HOT-LINE
- Tel.: +49-89-32006-456

Users are also invited to send us any suggestions or comments. Although we do provide a telephone service, we ask users to use it only in urgent cases. To make it easier for us to process the requests properly, we ask you, when possible, to submit requests in written form through either electronic networks, telefax or telex.

Contents

ESO, the European Southern Observatory, was created in 1962 to . . . establish and operate an astronomical observatory in the southern hemisphere, equipped with powerful instruments, with the aim of furthering and organizing collaboration in astronomy . . . It is supported by eight countries: Belgium, Denmark, France, the Federal Republic of Germany, Italy, the Netherlands, Sweden and Switzerland. It operates the La Silla observatory in the Atacama desert, 600 km north of Santiago de Chile, at 2,400 m altitude, where fourteen optical telescopes with diameters up to 3.6 m and a 15-m submillimetre radio telescope (SEST) are now in operation. The 3.5-m New Technology Telescope (NTT) has recently become operational and a giant telescope (VLT = Very Large Telescope), consisting of four 8-m telescopes (equivalent aperture = 16 m) is under construction. Eight hundred scientists make proposals each year for the use of the telescopes at La Silla. The ESO Headquarters are located in Garching, near Munich, FRG. It is the scientific-technical and administrative centre of ESO, where technical development programmes are carried out to provide the La Silla observatory with the most advanced instruments. There are also extensive facilities which enable the scientists to analyze their data. In Europe ESO employs about 150 international Staff members, Fellows and Associates; at La Silla about 40 and, in addition, 150 local Staff members.

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