

UNIVERSITY OF CALIFORNIA
LICK OBSERVATORY TECHNICAL REPORTS

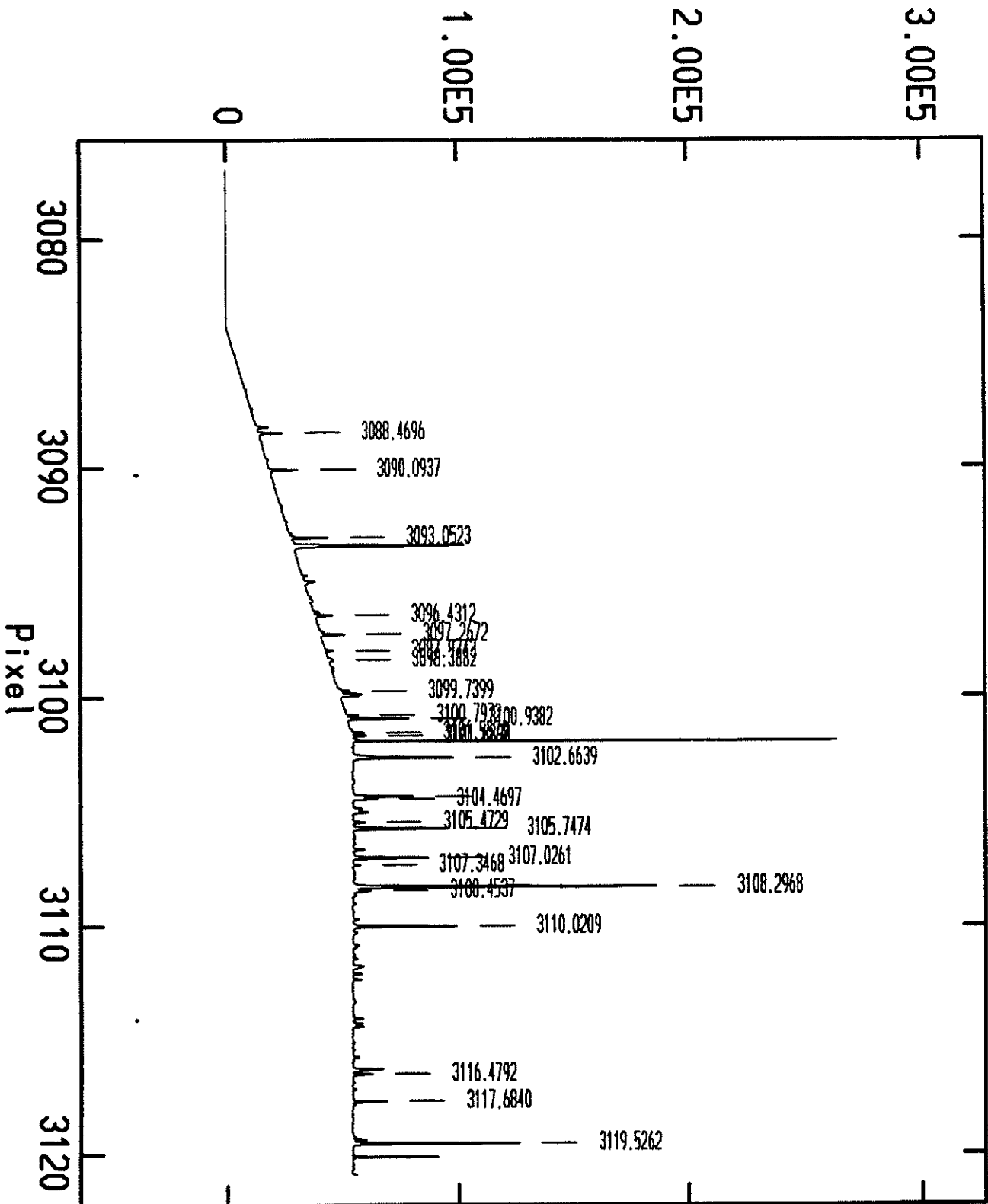
No. 88

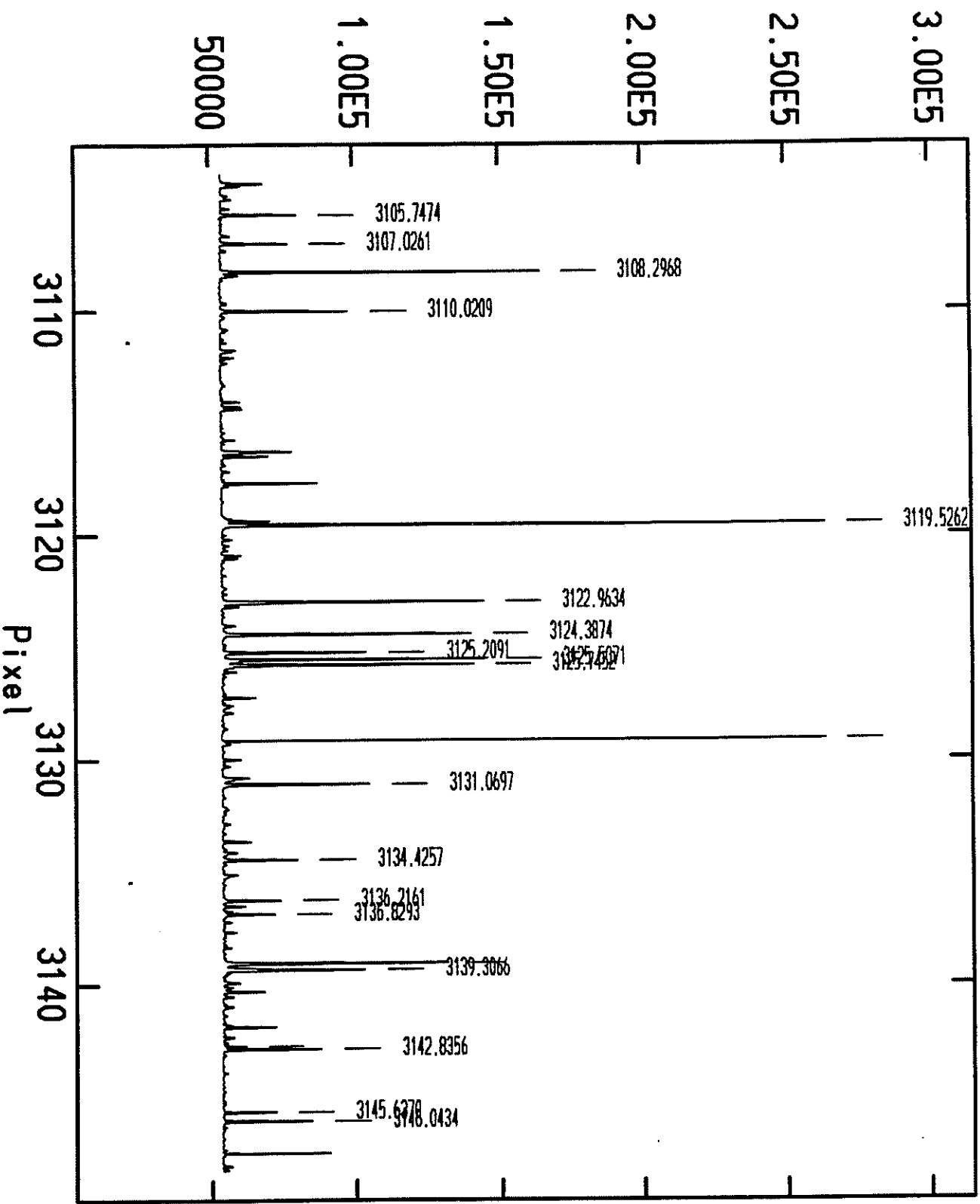
**A THORIUM-ARGON LINE ATLAS FOR THE KECK HIRES
SPECTROMETER**

Steven S. Vogt and Michael Keane

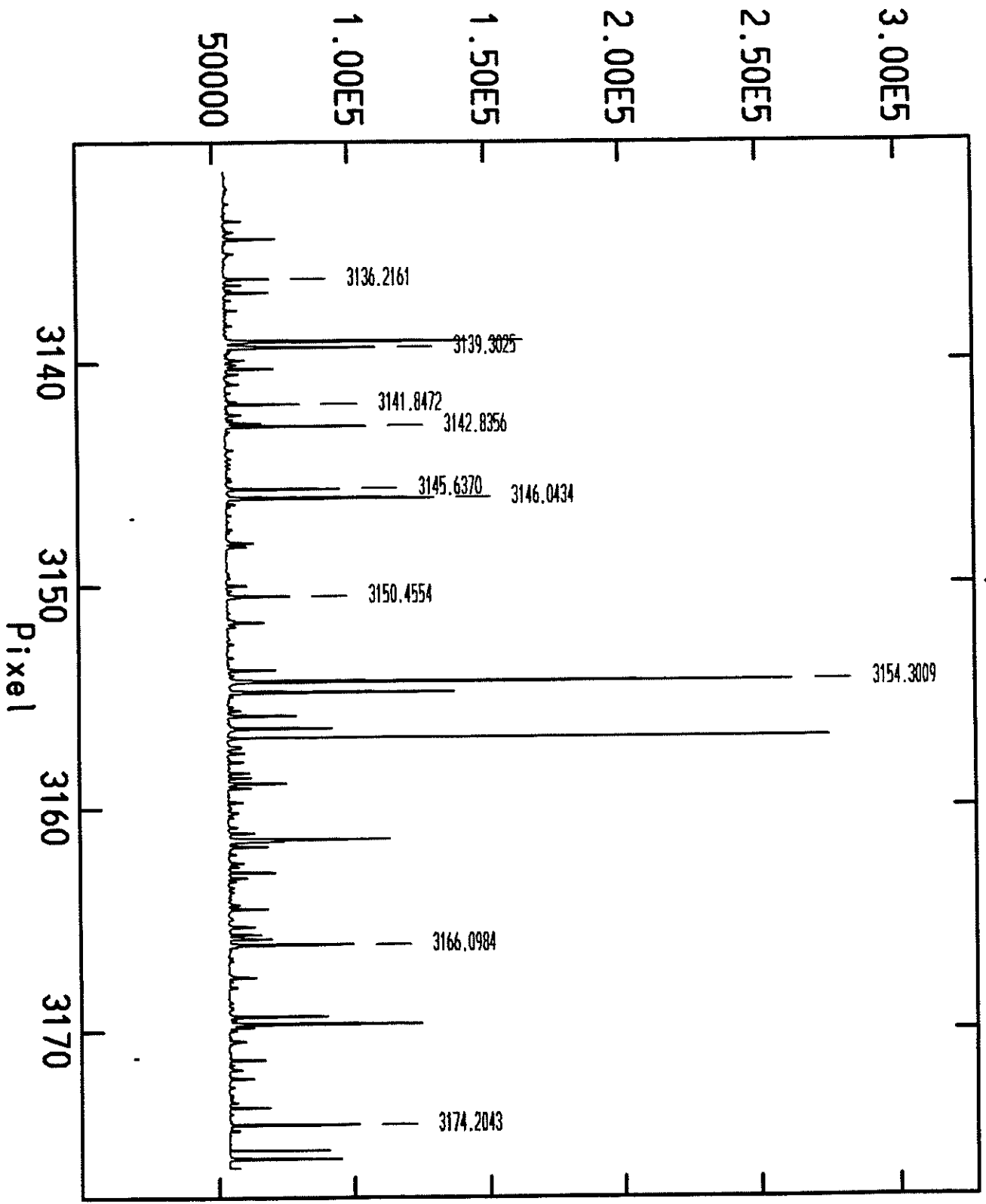
Santa Cruz, California

January, 1999

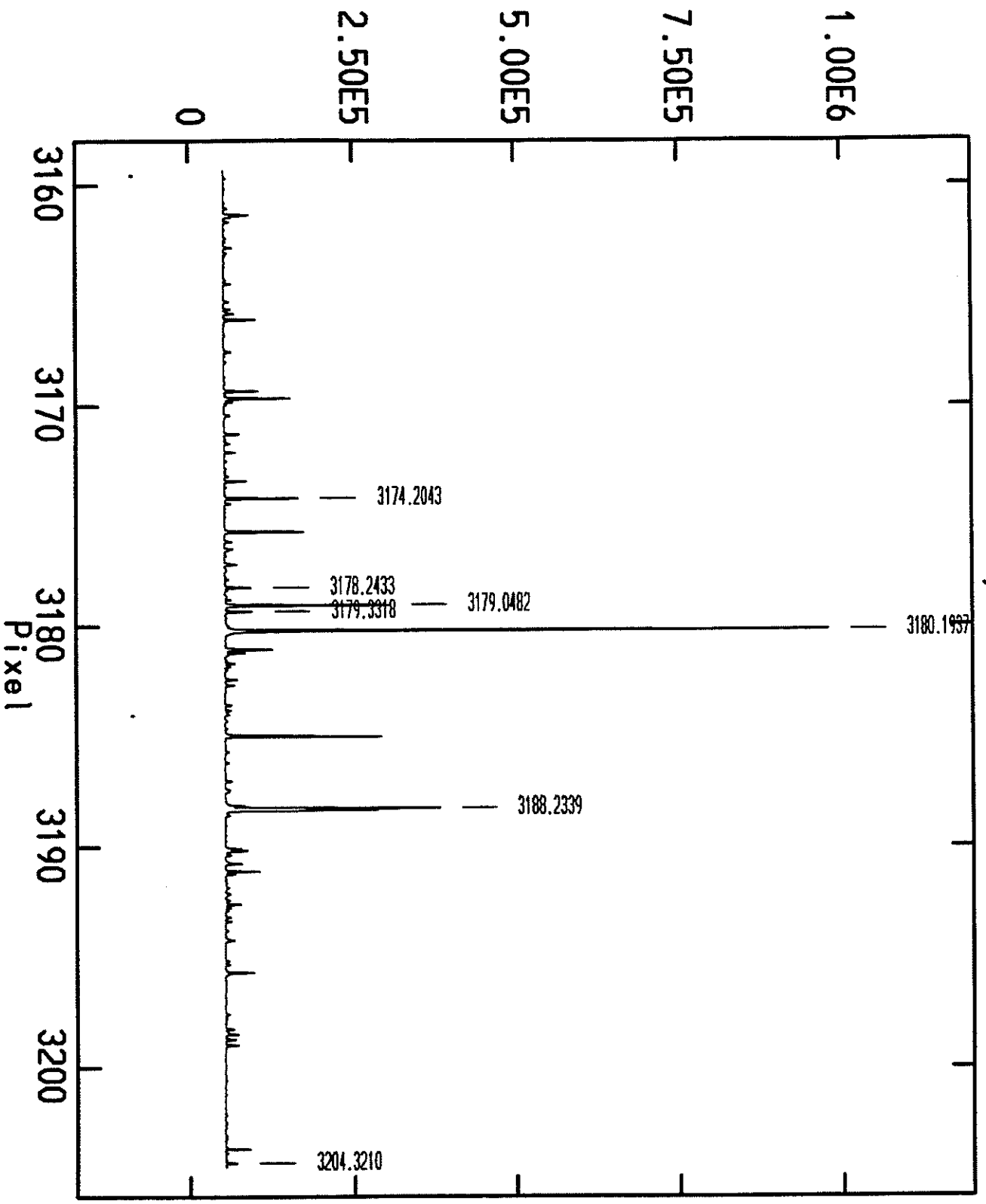




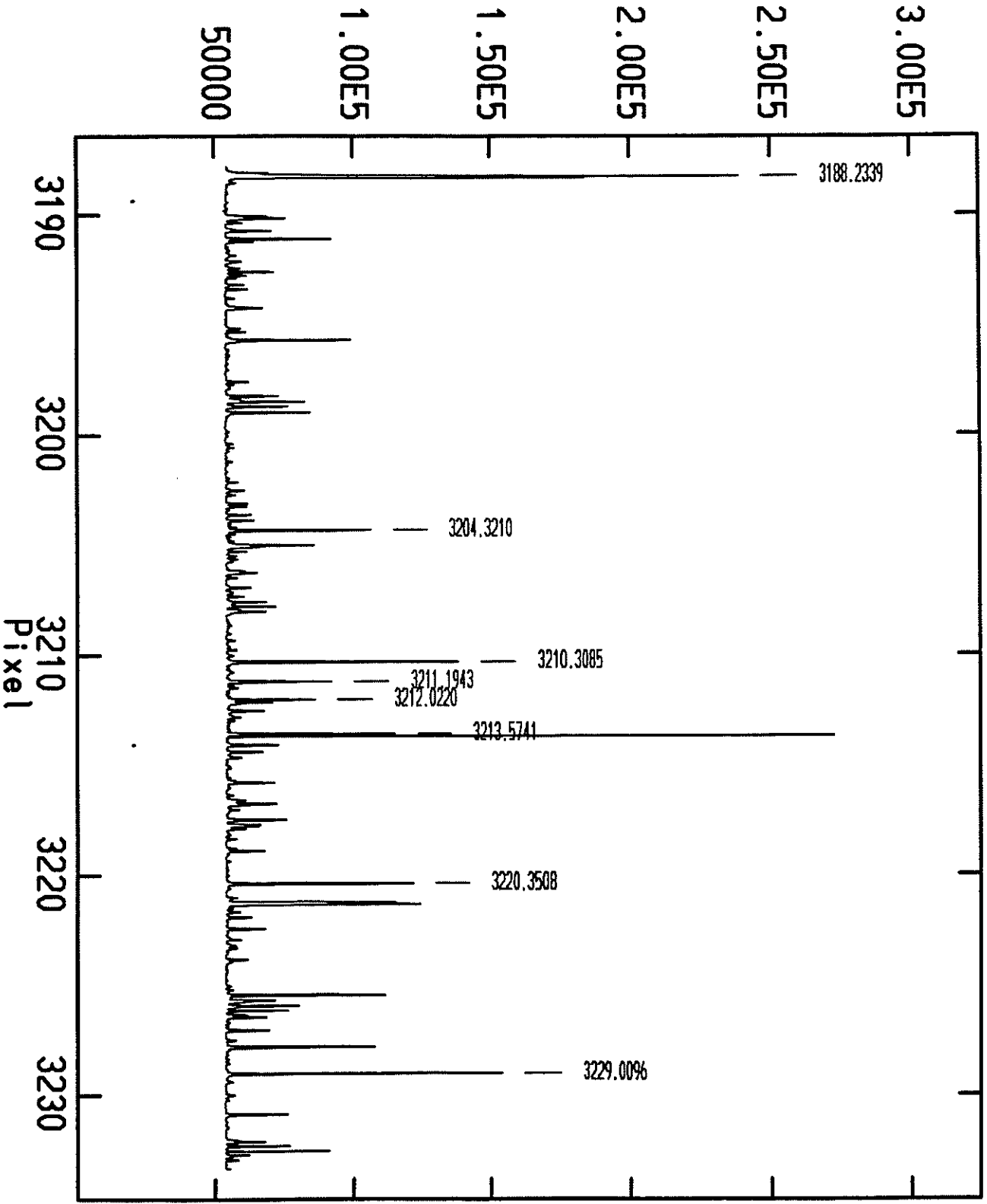
DAO/IRAF V2.10EXPORT mk@umbra. (C)SC.EDU Sun 12:32:44 31-Oct-93
Aperture 3 Image 3 Order 113
Identify HAR.ec: BS 5501



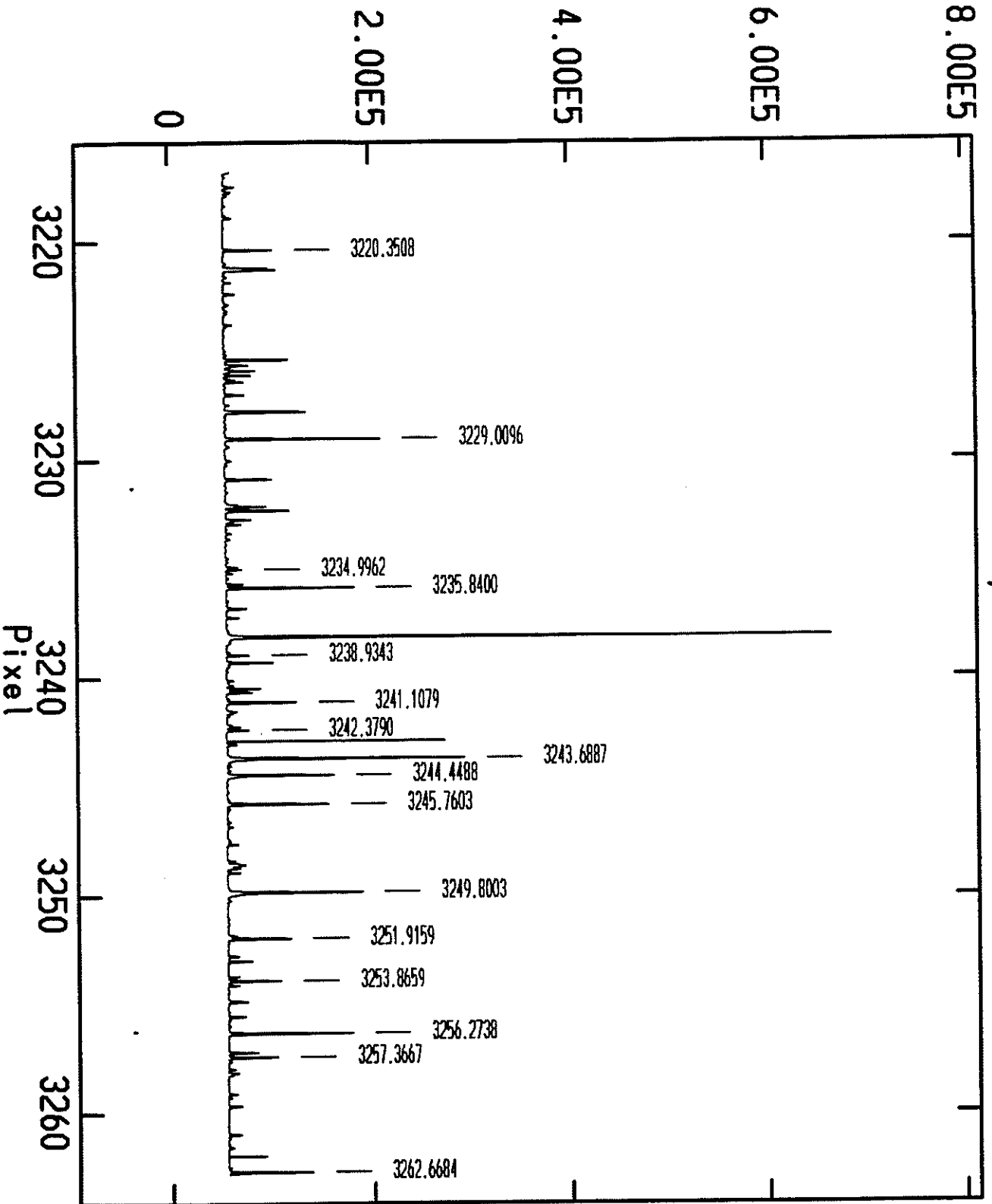
NOAO/IRAF V2.10EXPRT mk@umbra.ucsc.edu Sun 12:33:01 31-Oct-93
Aperture 4 image line 4
Identify HAR.ec: BS 5509 112

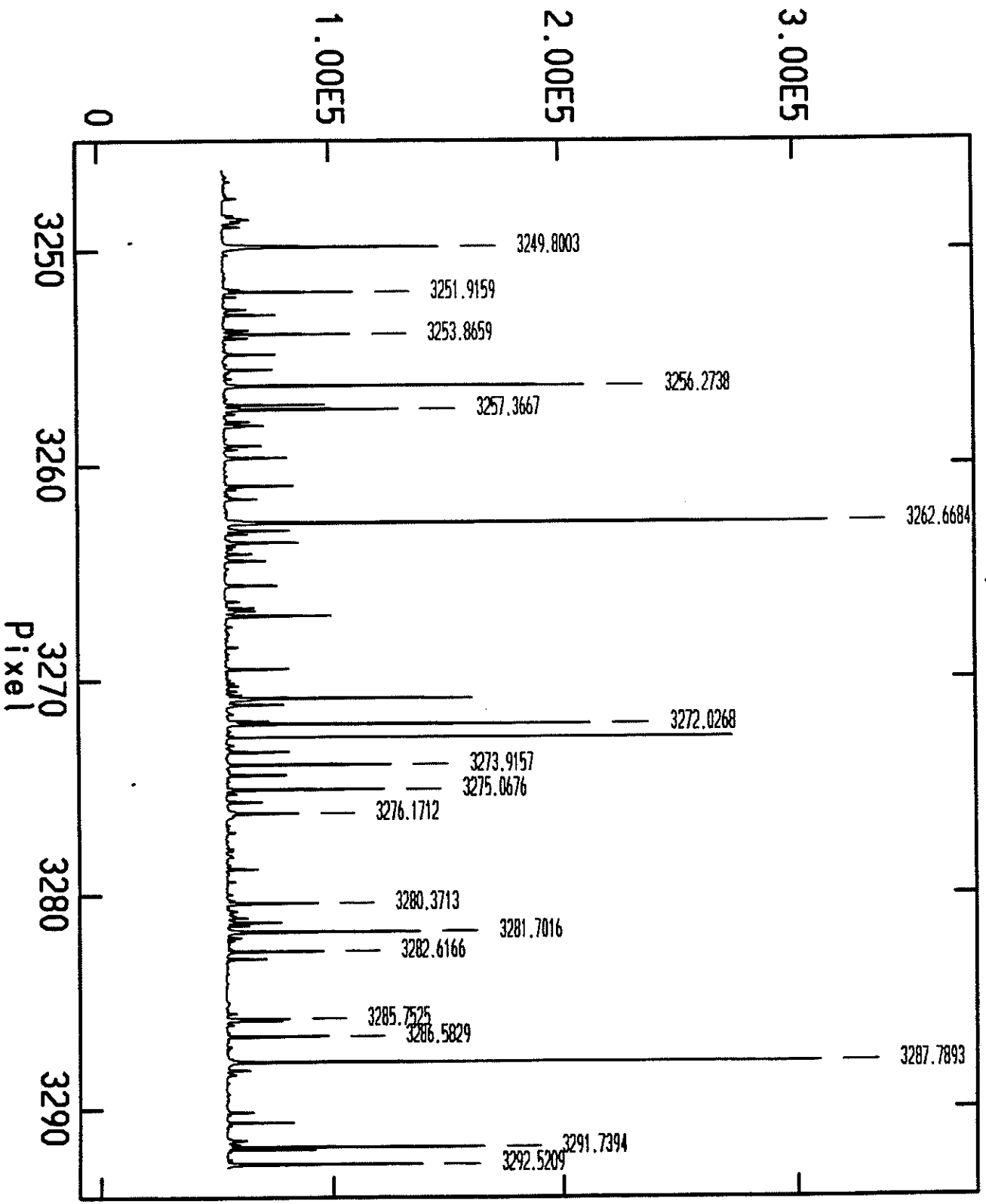


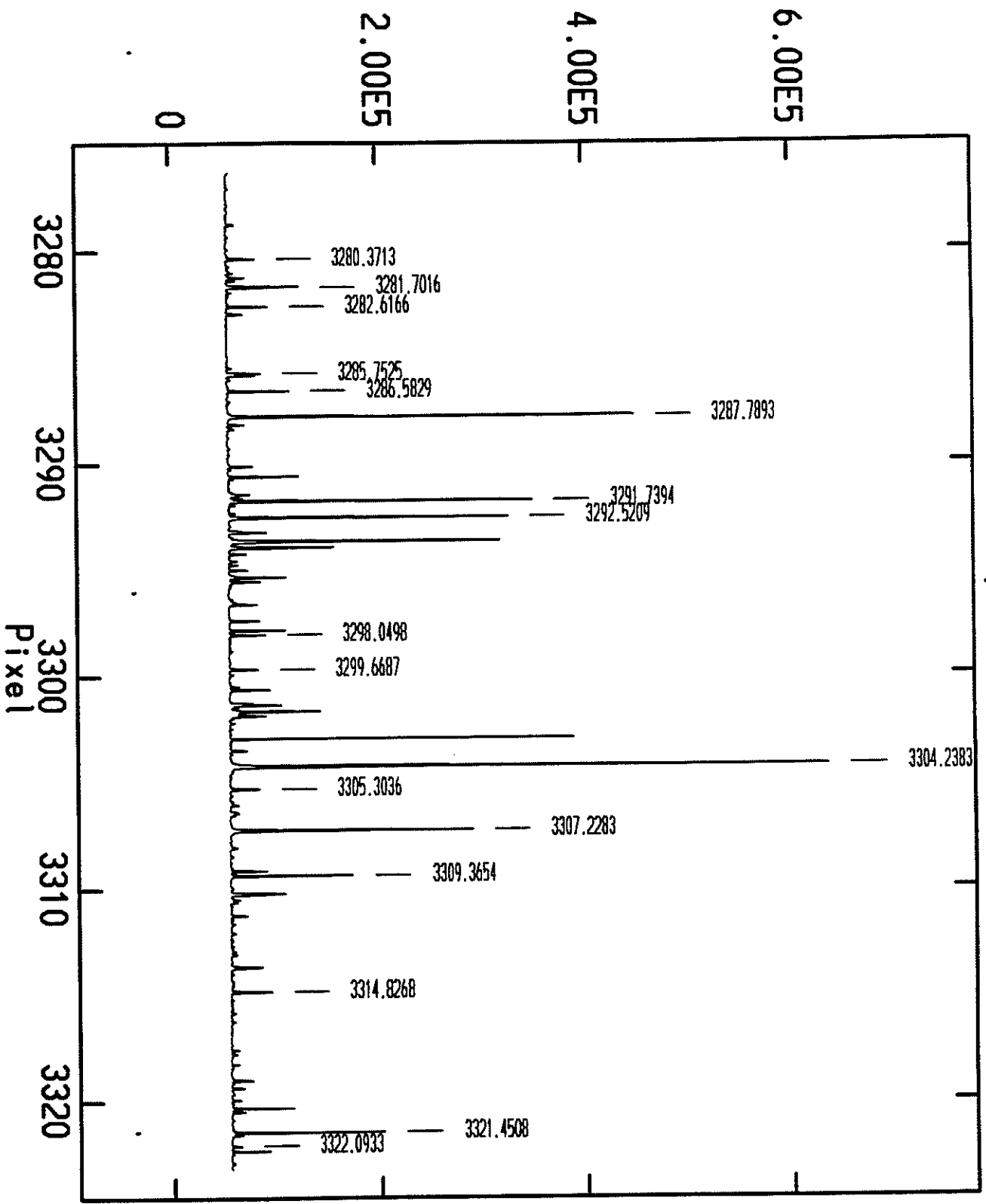
NOAO/IRAF V2.10EXPORT mk@umbra. "SC.EDU Sun 12:34:02 31-Oct-93
Aperture to identify the line to BS 5501



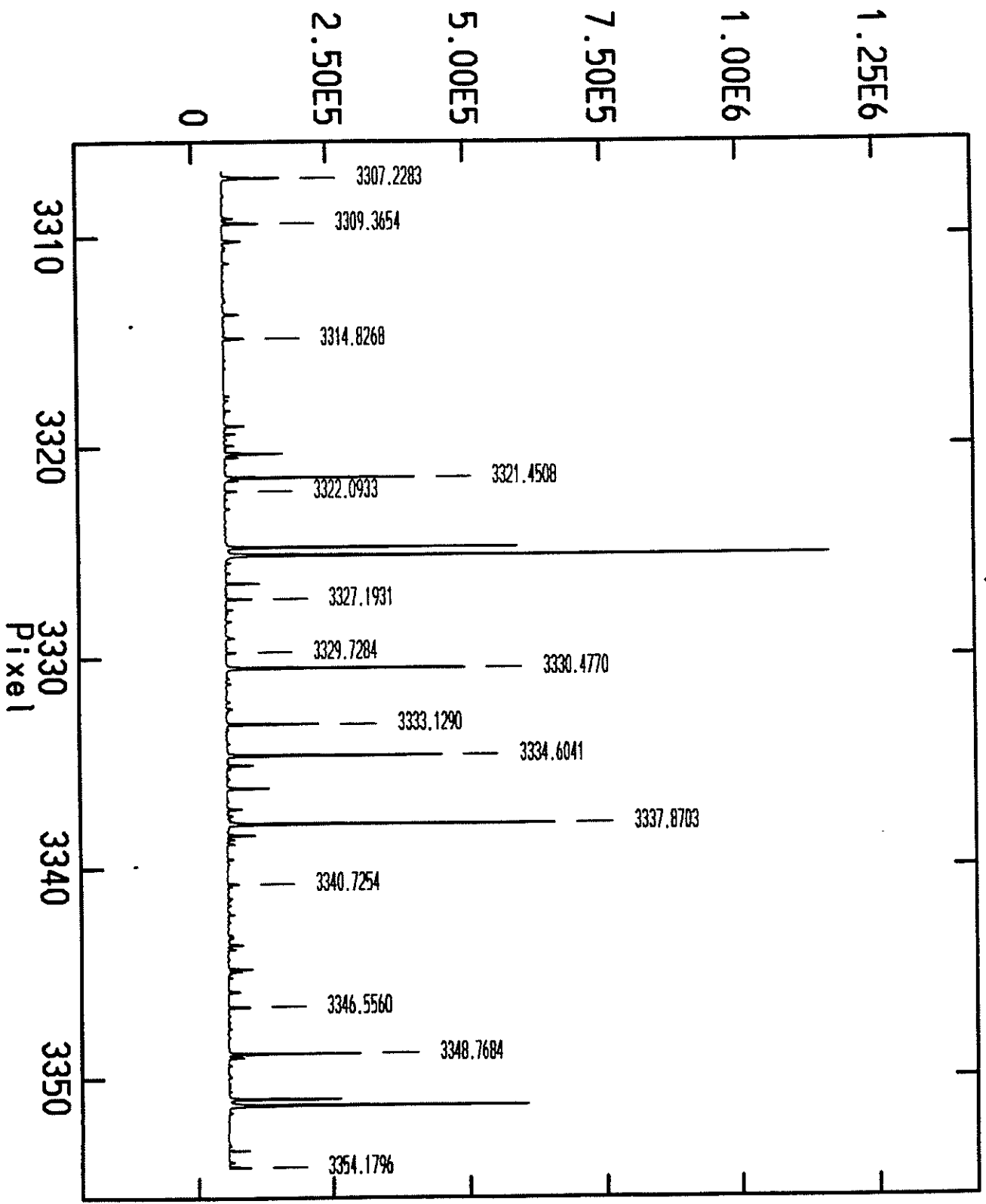
Aperture of image line 6
Identify HAR.ec: BS 5501



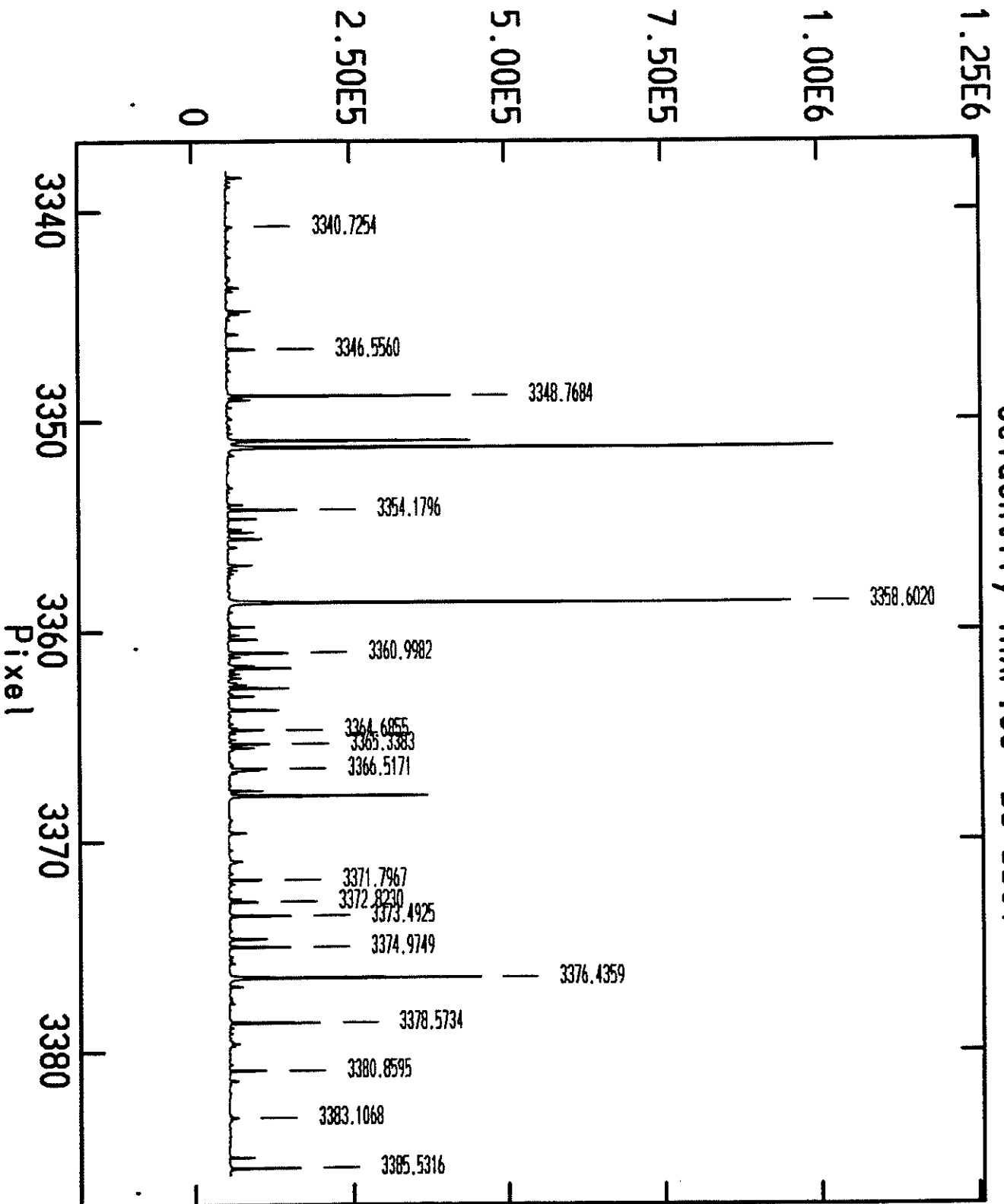




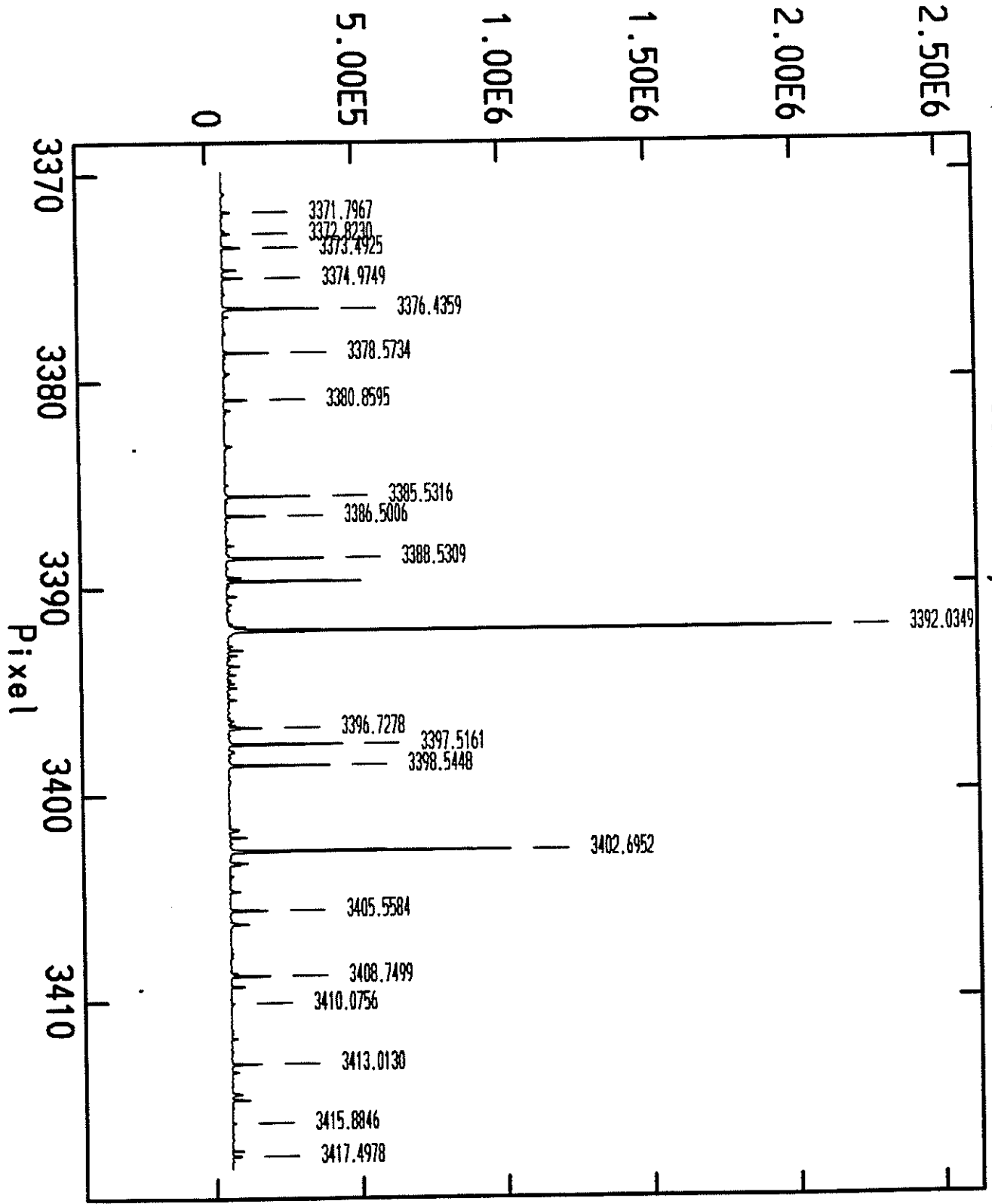
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Aperture of image of HAR.ec: BS 5501



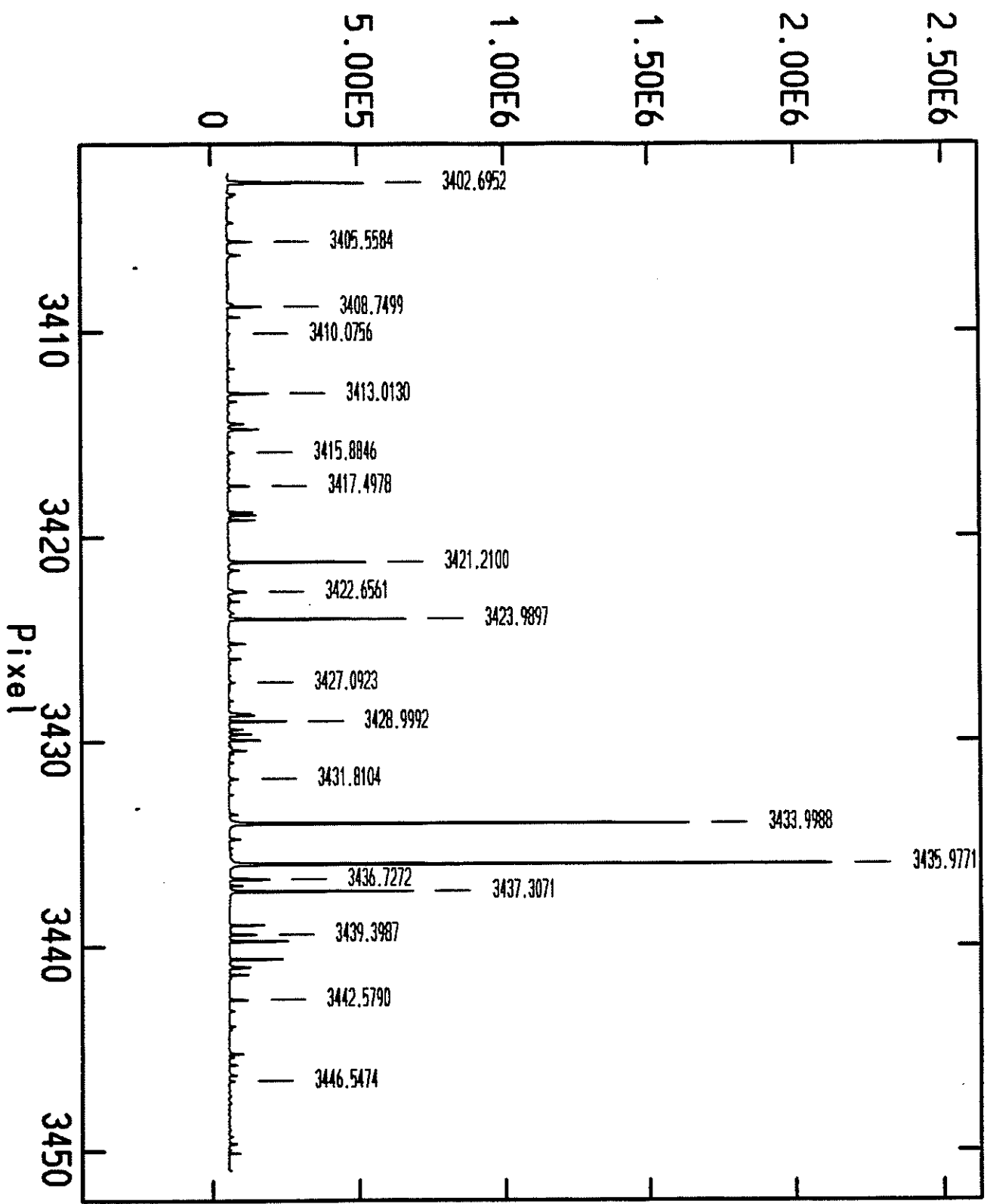
NDA00/IRAF V2.10EXPORT mk@umbr.a.ucsc.edu Sun 12:34:35 31-Oct-93
 Aperture 10 Image line 106 per 106
 identifyihar.ec: BS 5501



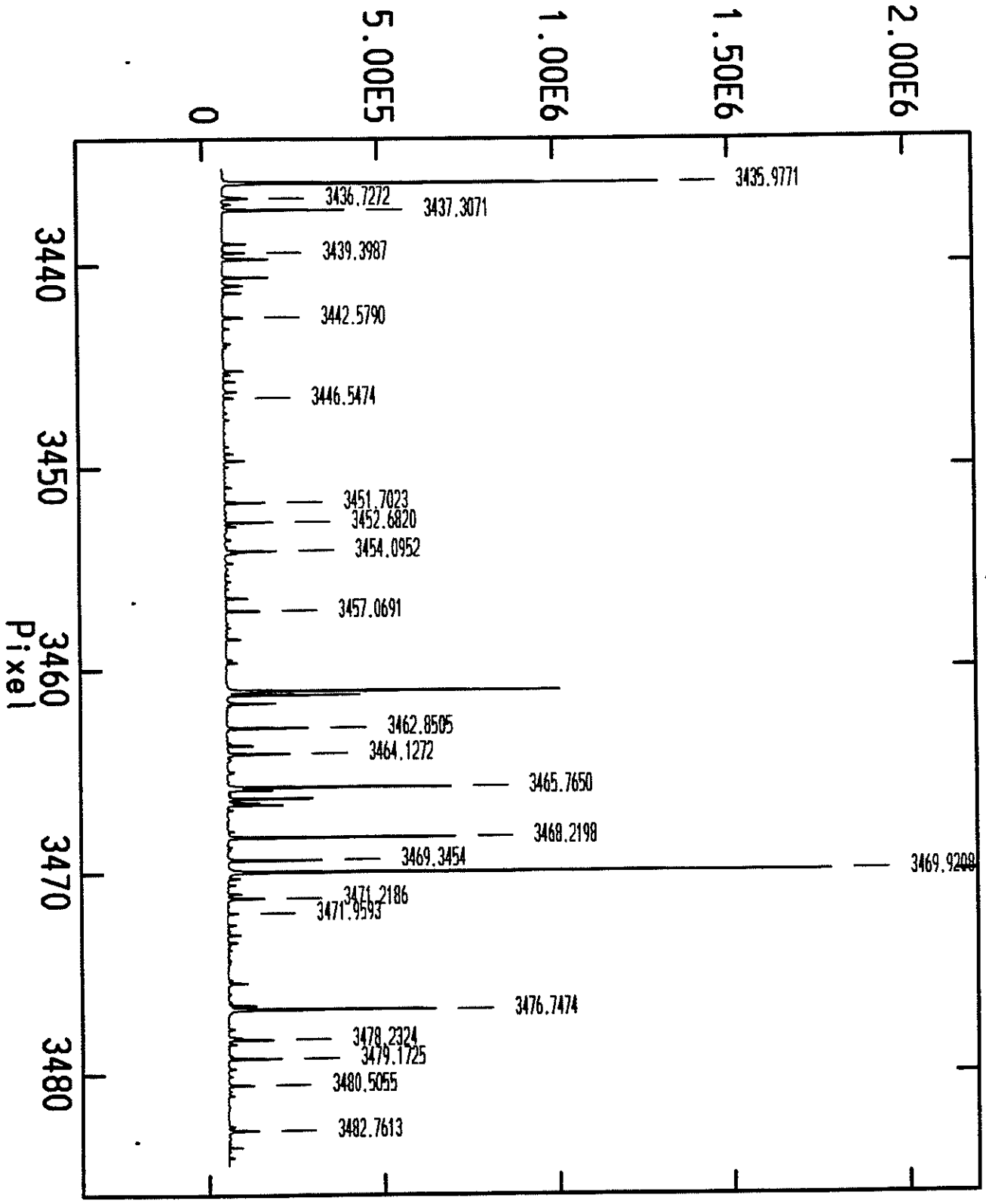
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Aperture 11 image 11 HAR.ec: BS 5501



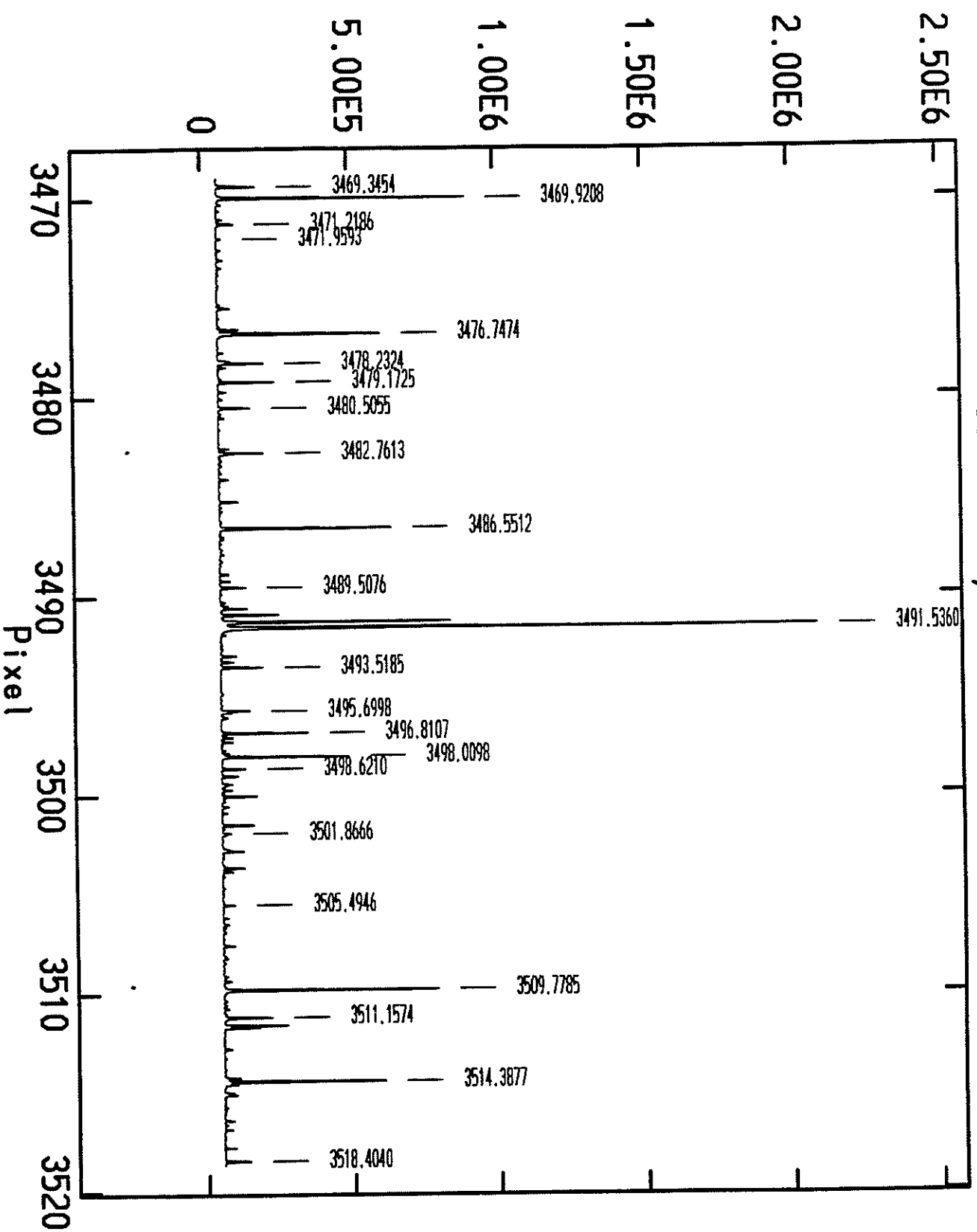
NOAO/IRAF V2.10EXPQRT mk@umbra.ucsc.edu Sun 12:34:46 31-Oct-93
Aperture 12 image line 12
identify HAR.ec: BS 550 per 104



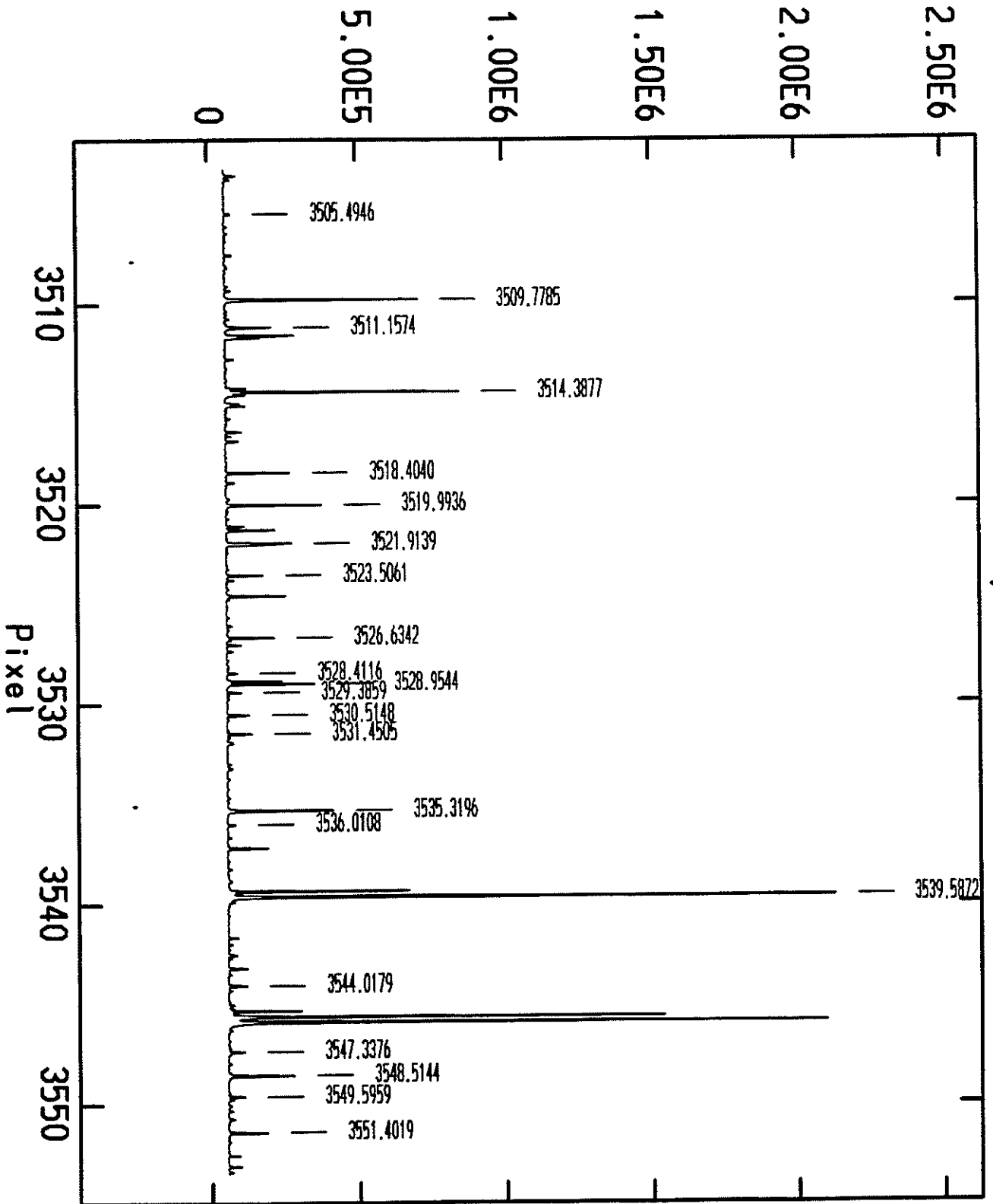
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 identify ThAr.ec: BS 5509



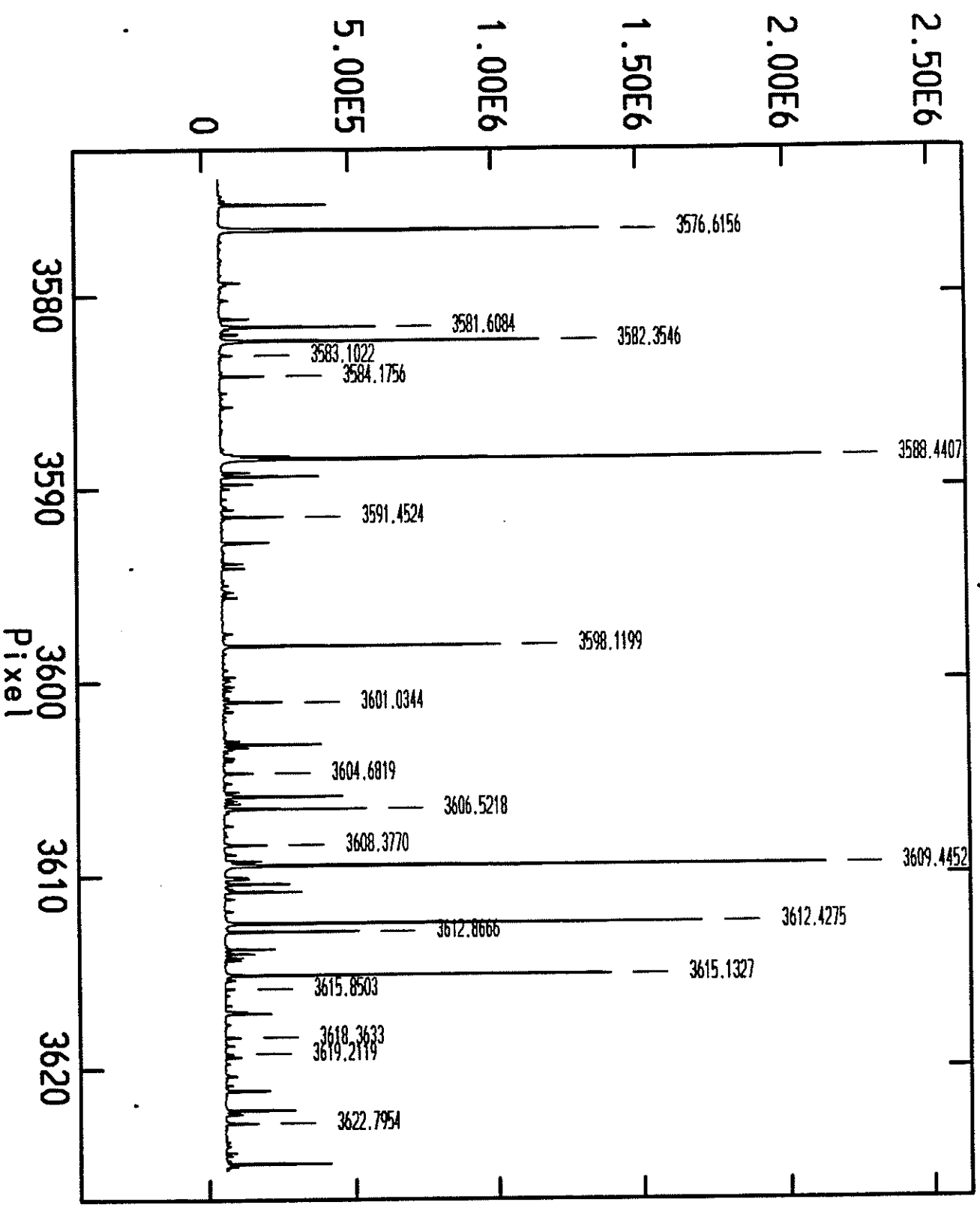
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 Aperture 14 Image Line 14 Header 102
 identify ThAr.ec: BS 5501



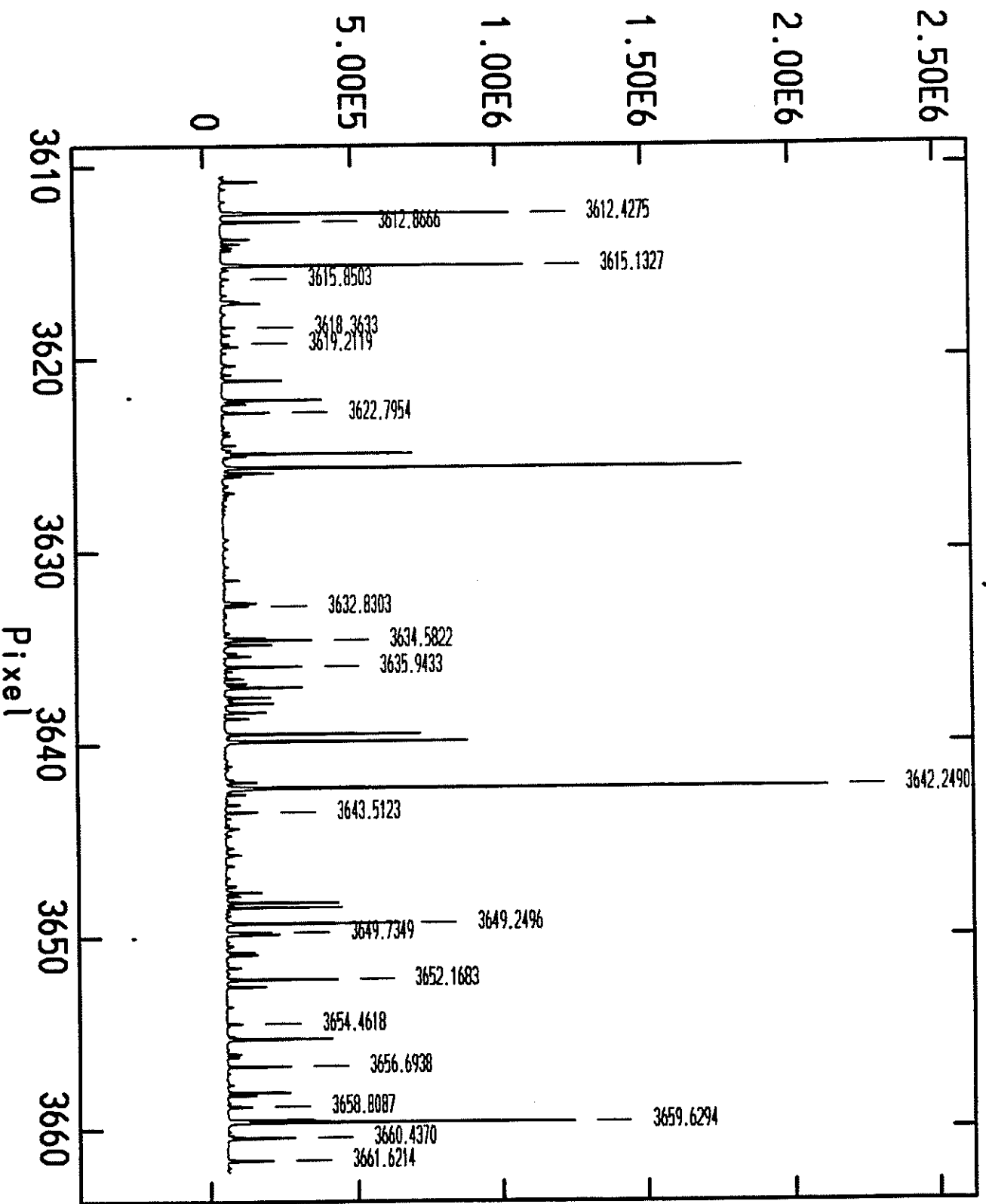
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Aperture 15 image line 15
identify HAR.ec: BS 5501 101



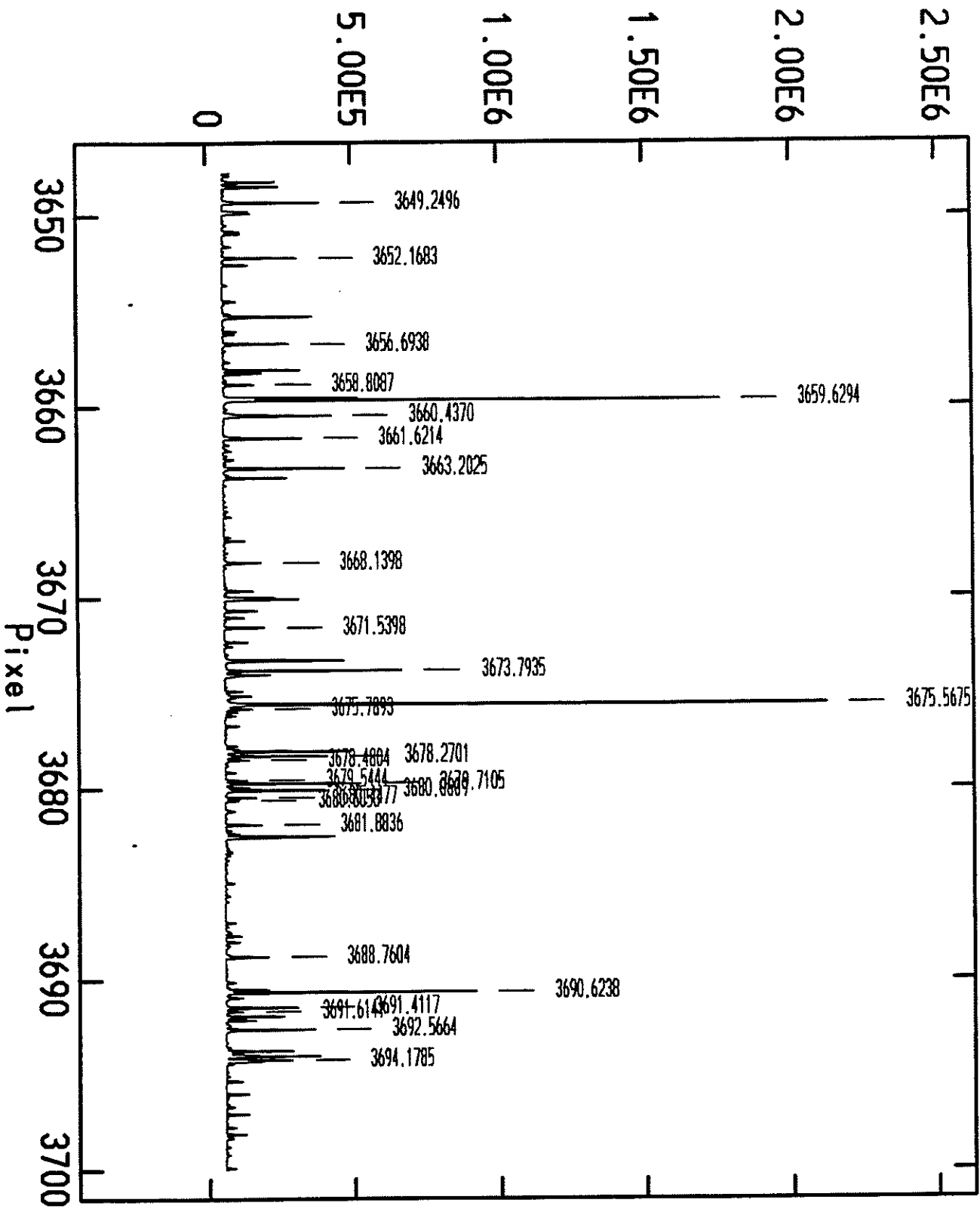
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Aperture Image by Umbra.
UCSC.EDU Syn 12:35:52 31-Oct-93
Order 99
Identify Line by Ar.ec: BS 5501



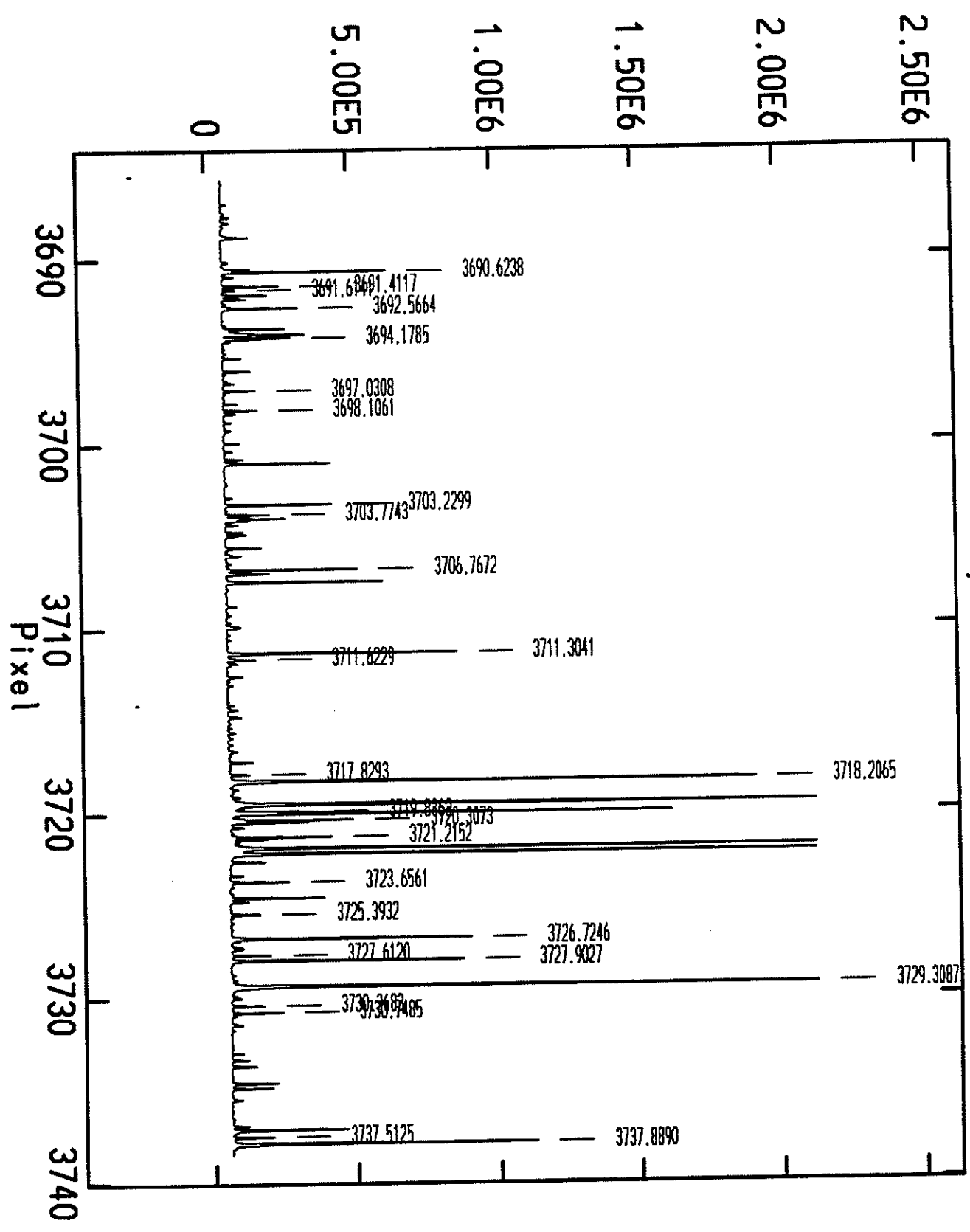
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 Aperture: 18. Image file: BS 5501
 Identify Image: BS 5501

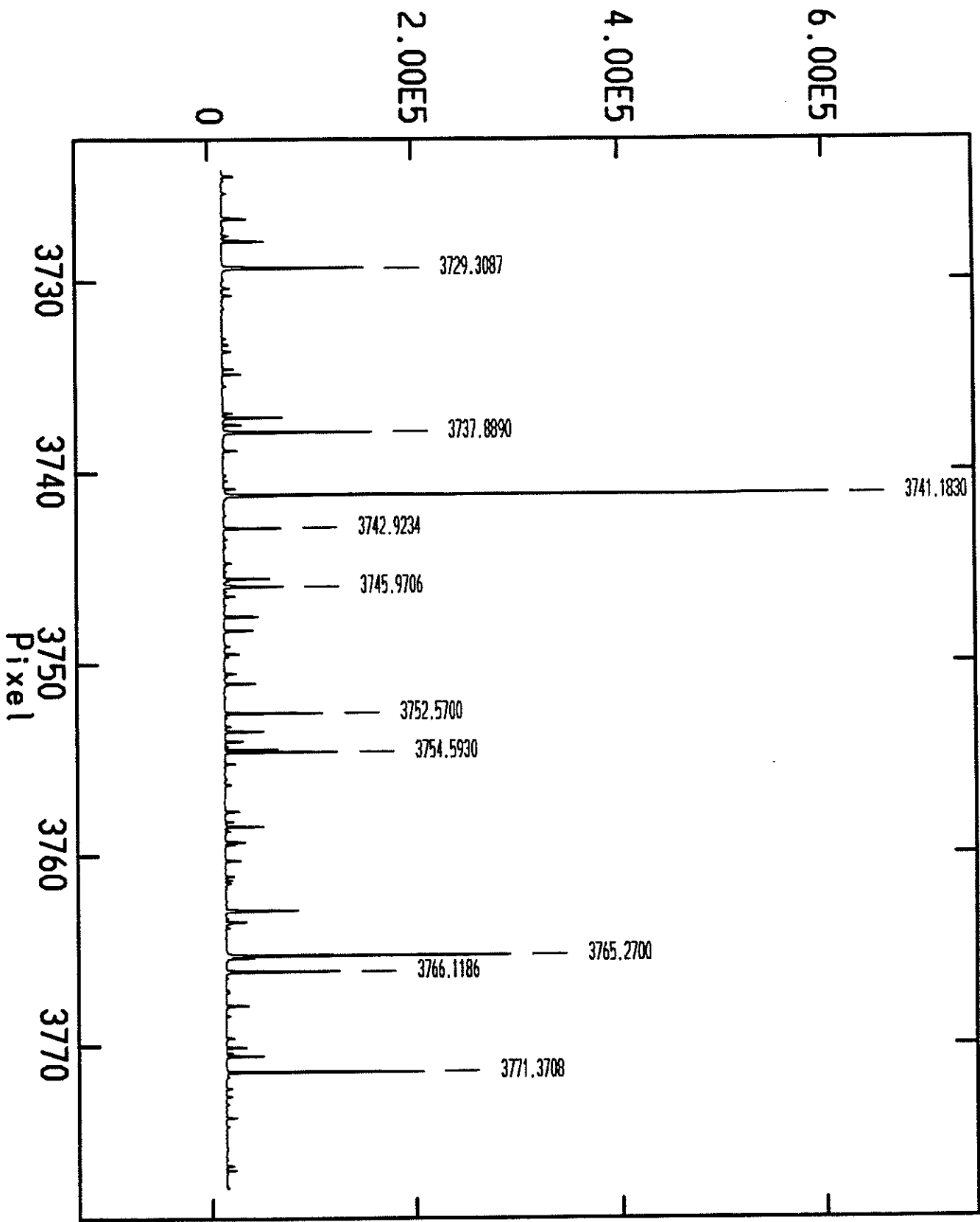


NOAO/IRAF V2.10EXPORT μ Cambrera UCSC.EDU Sun 12:37:58 31-Oct-93
 Aperture Image Line Order 9
 Identifier: BS 5501

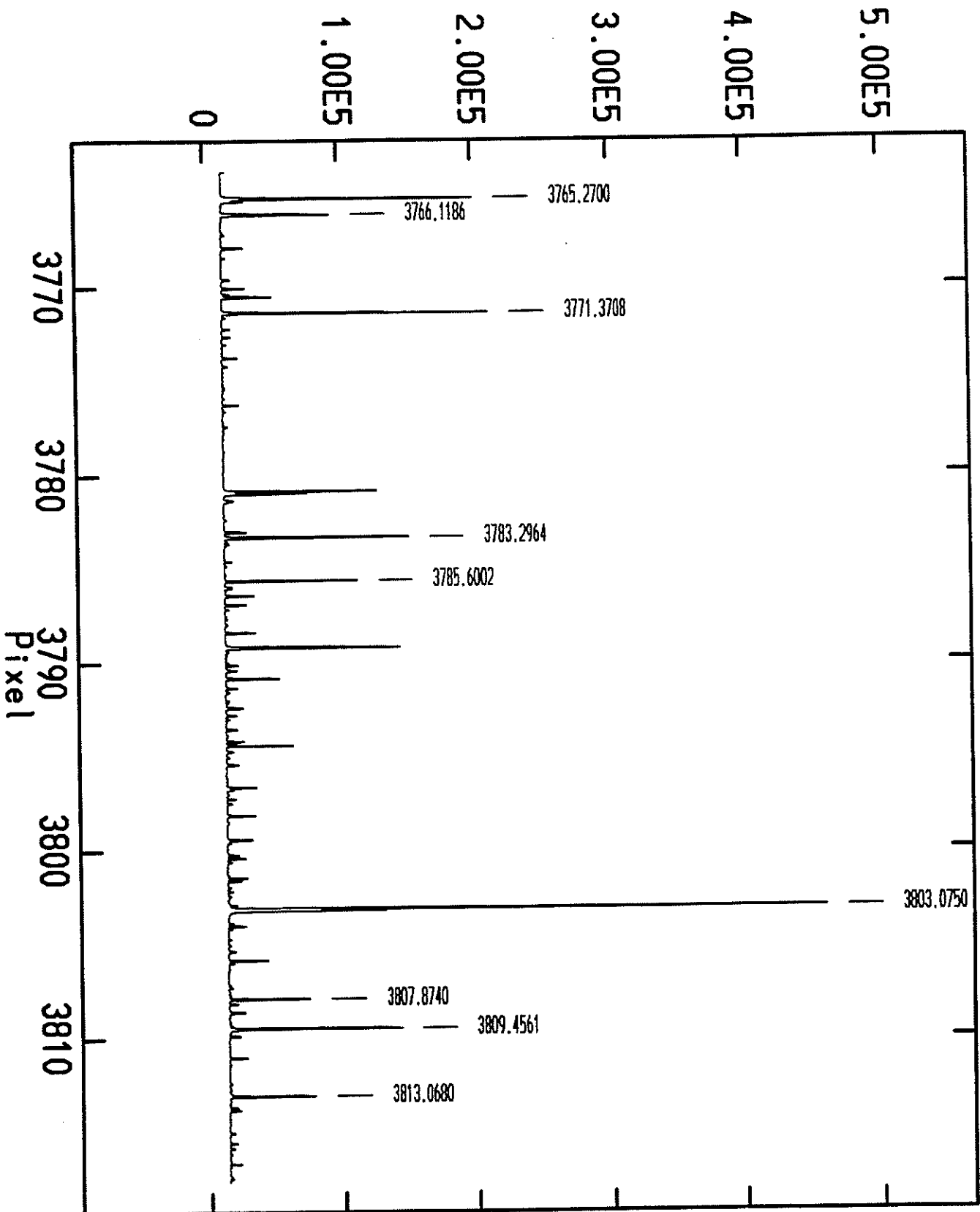


VDAO/IRAF V2.10EXPORT of keubbra. JSC.EDU Syn 12:38:11 31-Oct-93
 Aperture 20 Image Line 20 Order 96
 Identify Image File: BS 5501

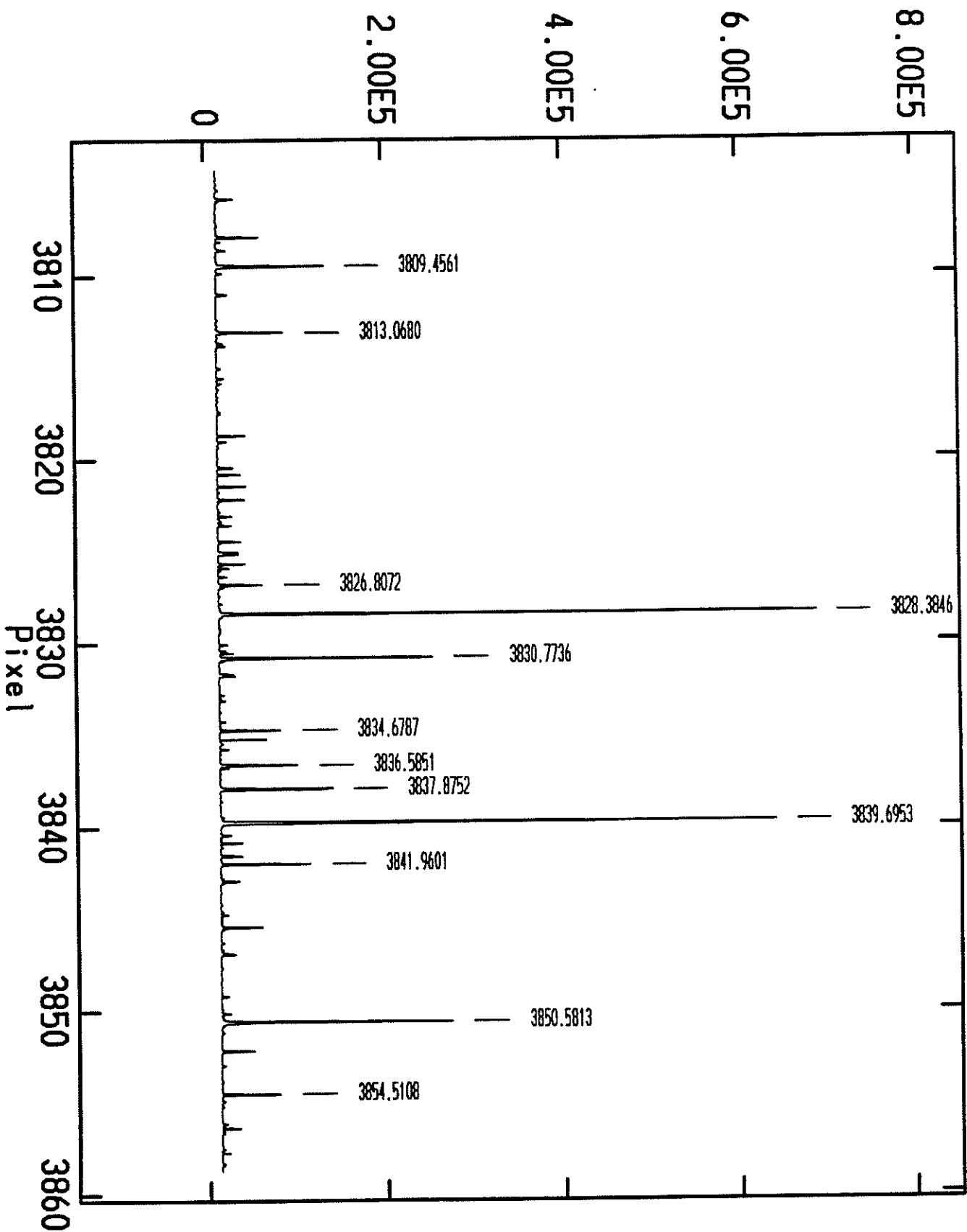




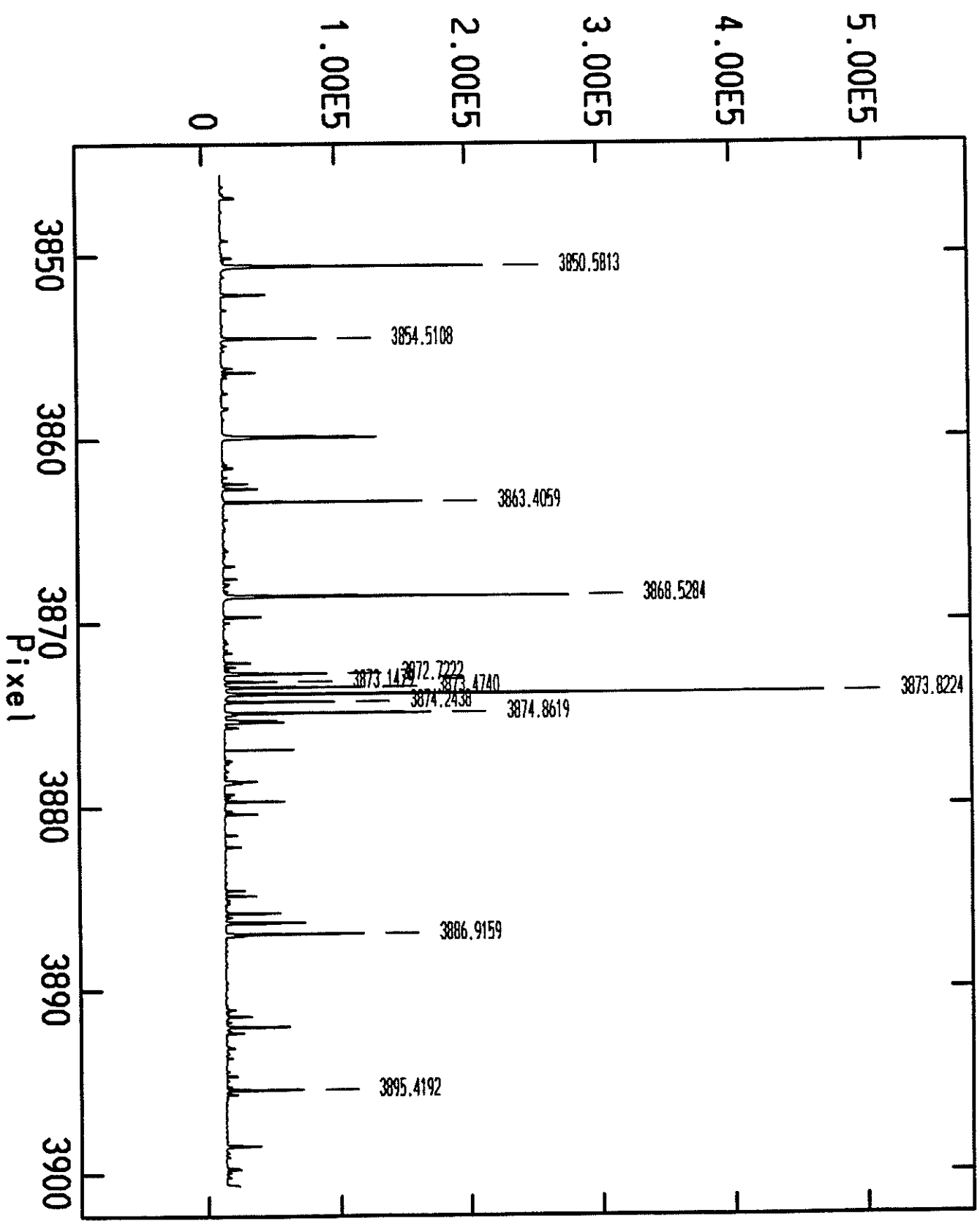
NOAO/IRAF V2.10EXPORT mkumbra 'JCSC.EDU Mon 15:25:03 13-Sep-93
Aperture Image Line Order 94
Identify data 0264.ec: hor

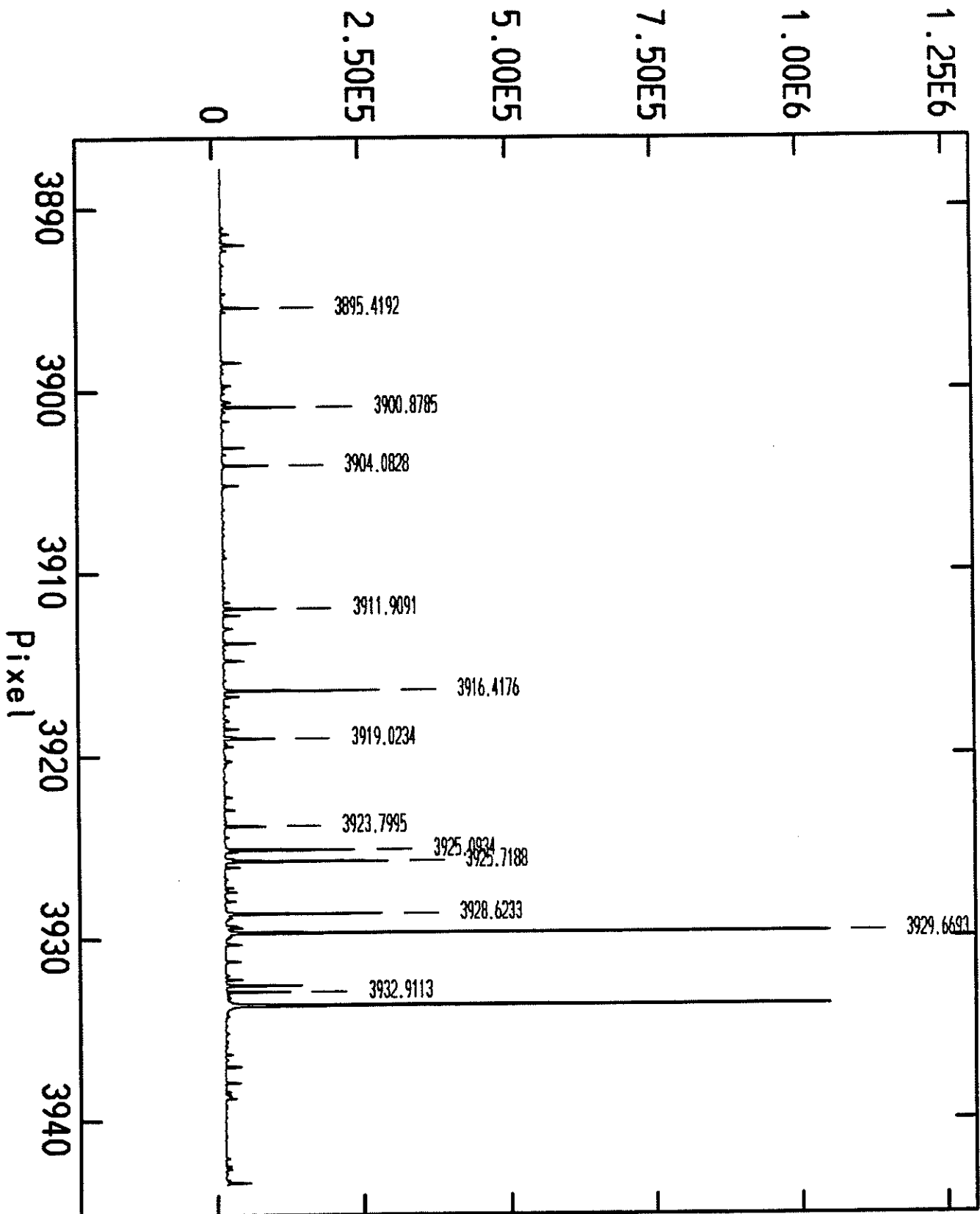


NOAO/IRAF V2.10EXPORT of Umlbra UCSC.EDU Mn 15:25:14 13-Sep-93
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identify data 0264.ec: hor

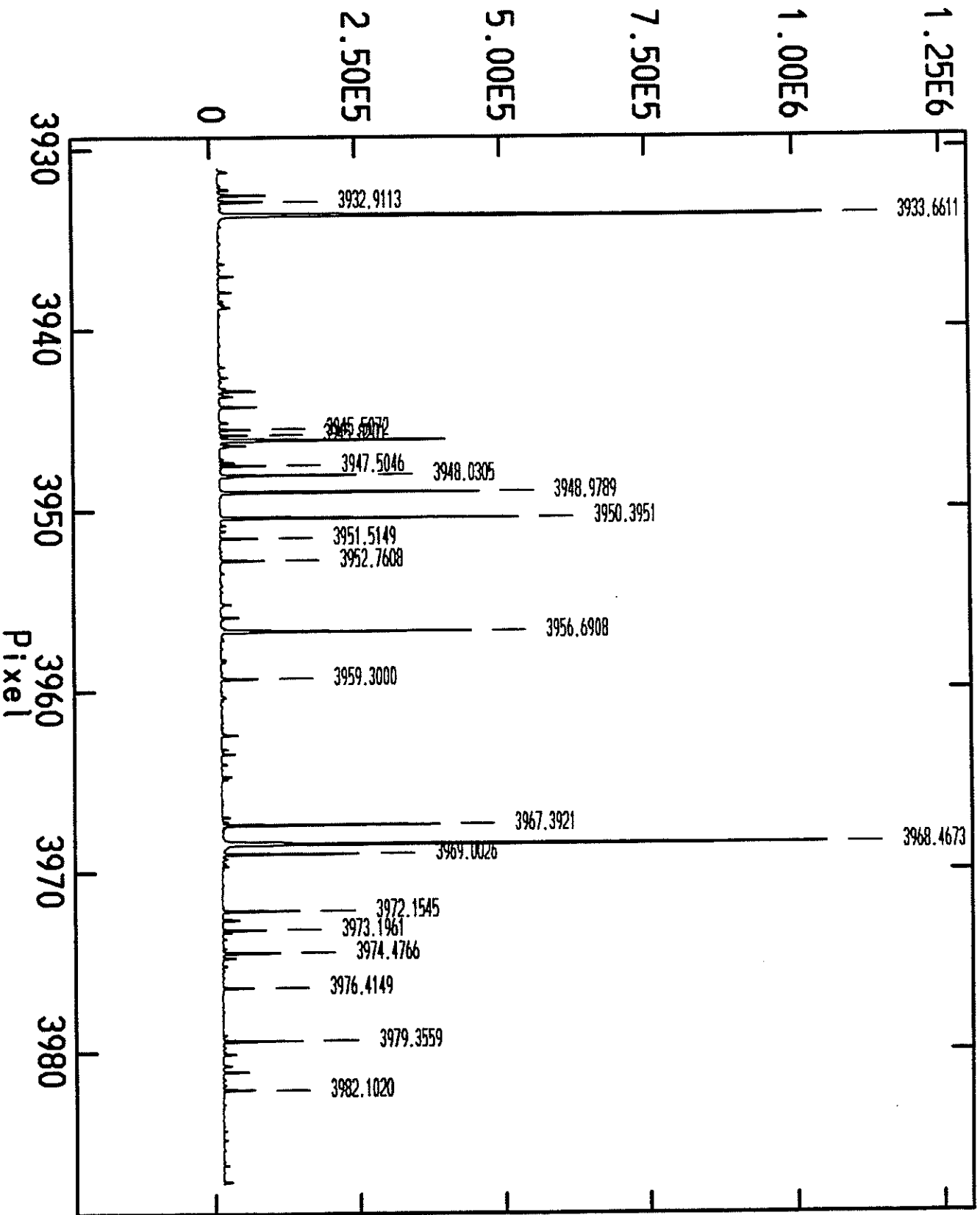


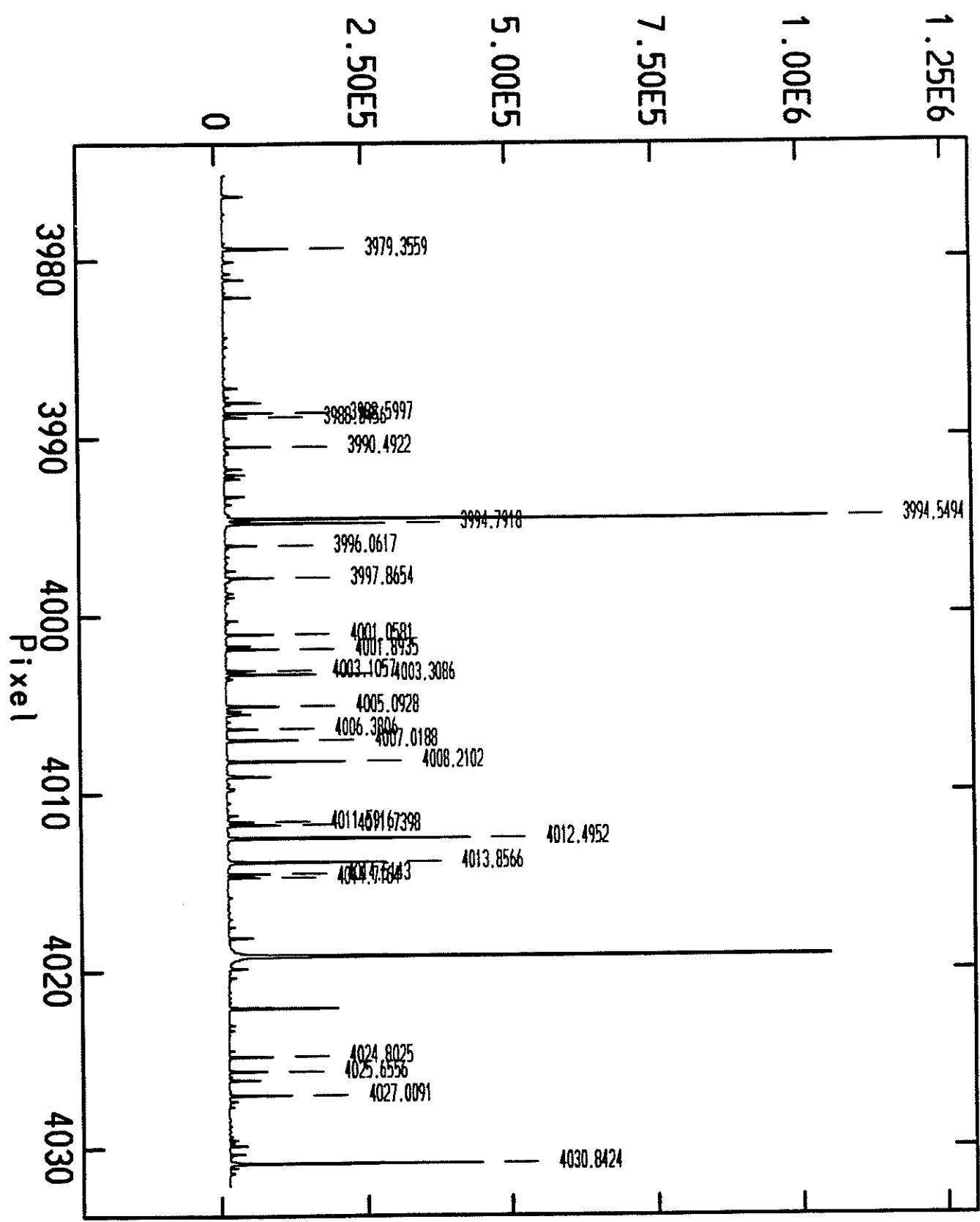
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Aperture Image file: Order 92
Identify data: 0264.ec: hor



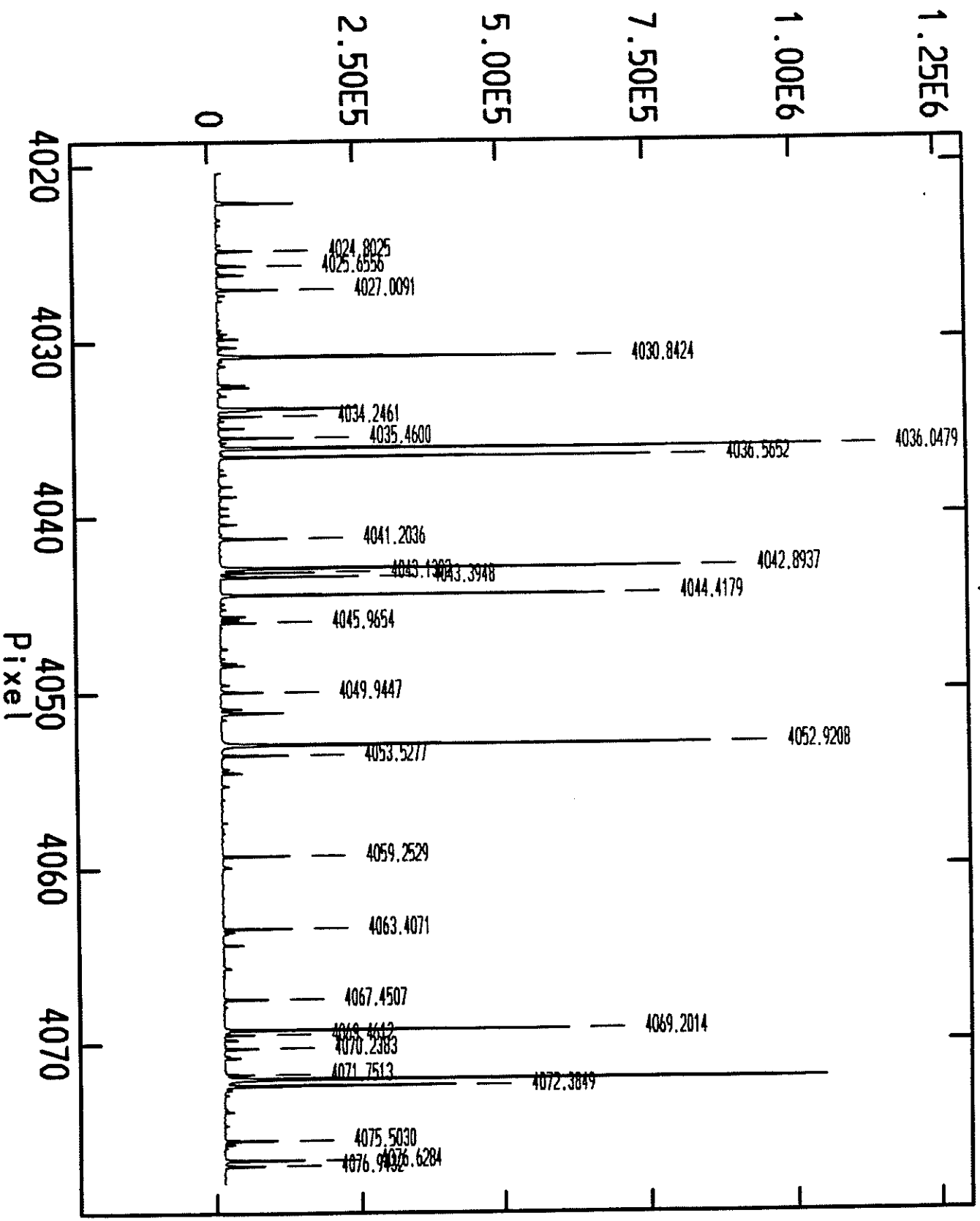


QAO/IRAF V2.10EXPORT mk@umbra.13SC.EDU Mn 15:25:32 13-Sep-93
Aperture 13 Image file 13 Order 90
Identify data 0284.ec: hor

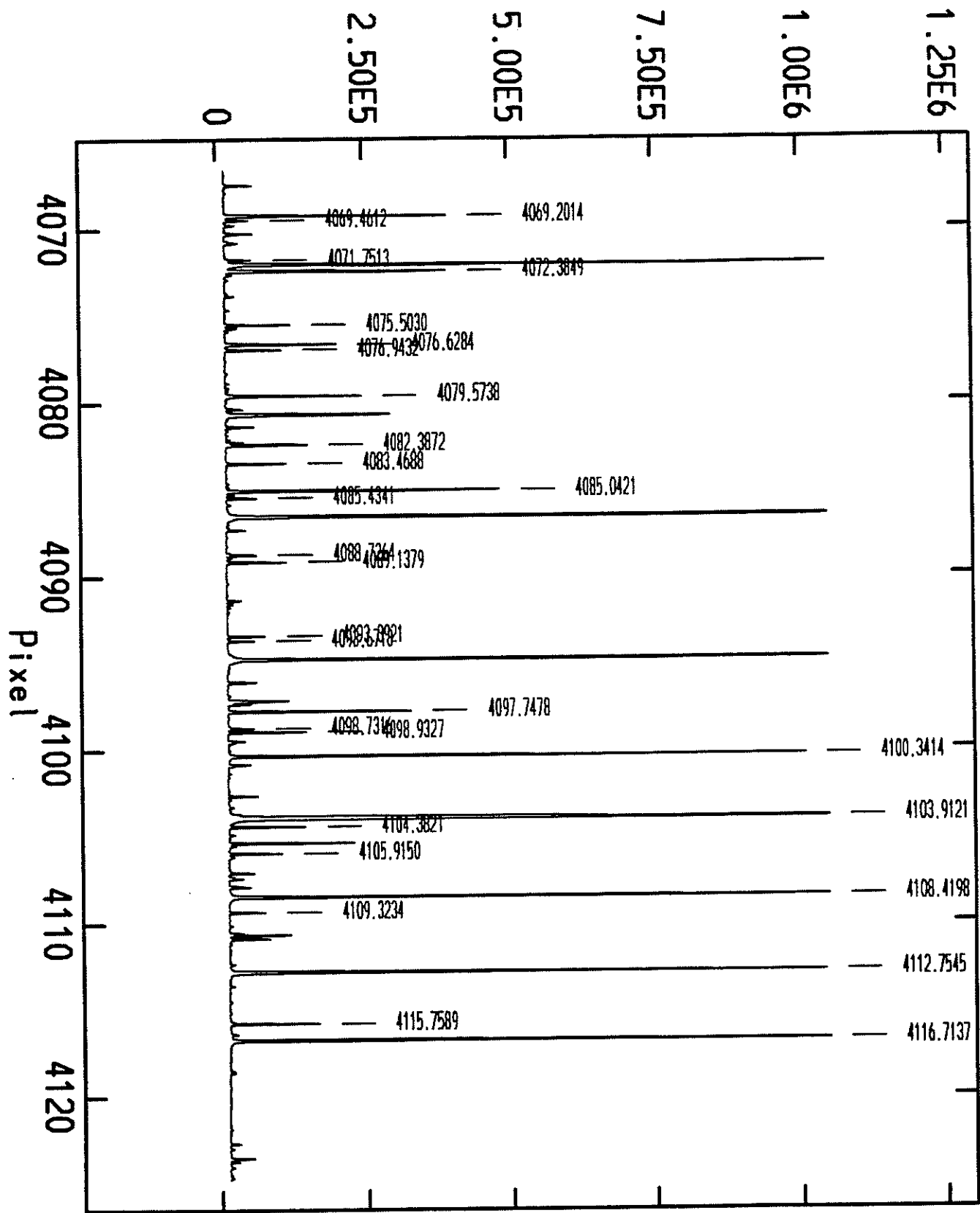




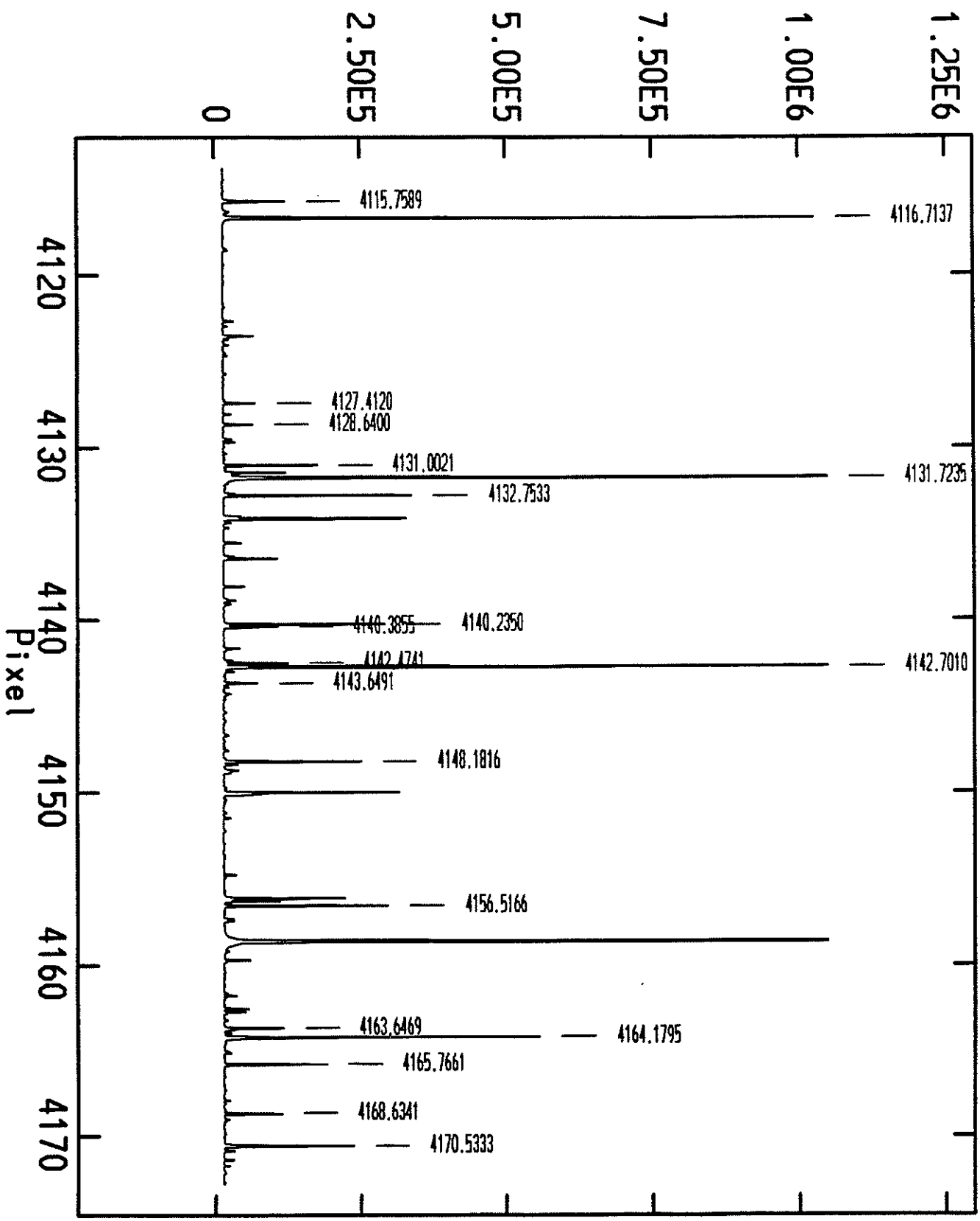
NOAO/IRAF V2.10EXPORT μ keumbra 'CSC:EDU Mgn 15:25:44 13-Sep-93
 Aperture 15 Image Line 15 Order 88
 Identify data 0264.ec: hor



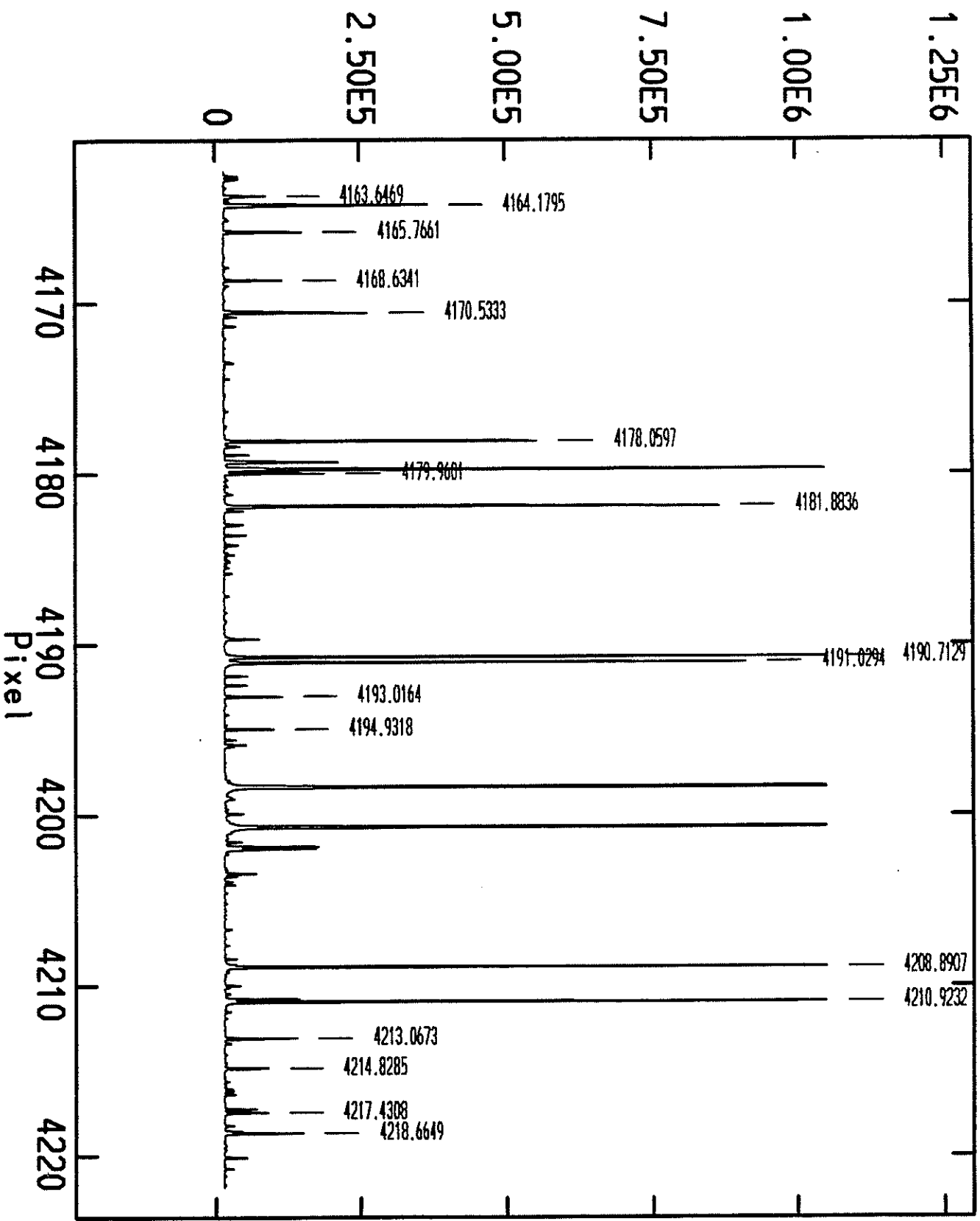
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 Aperture 16, Image 1, Order 8
 identify data0264.ec: hor



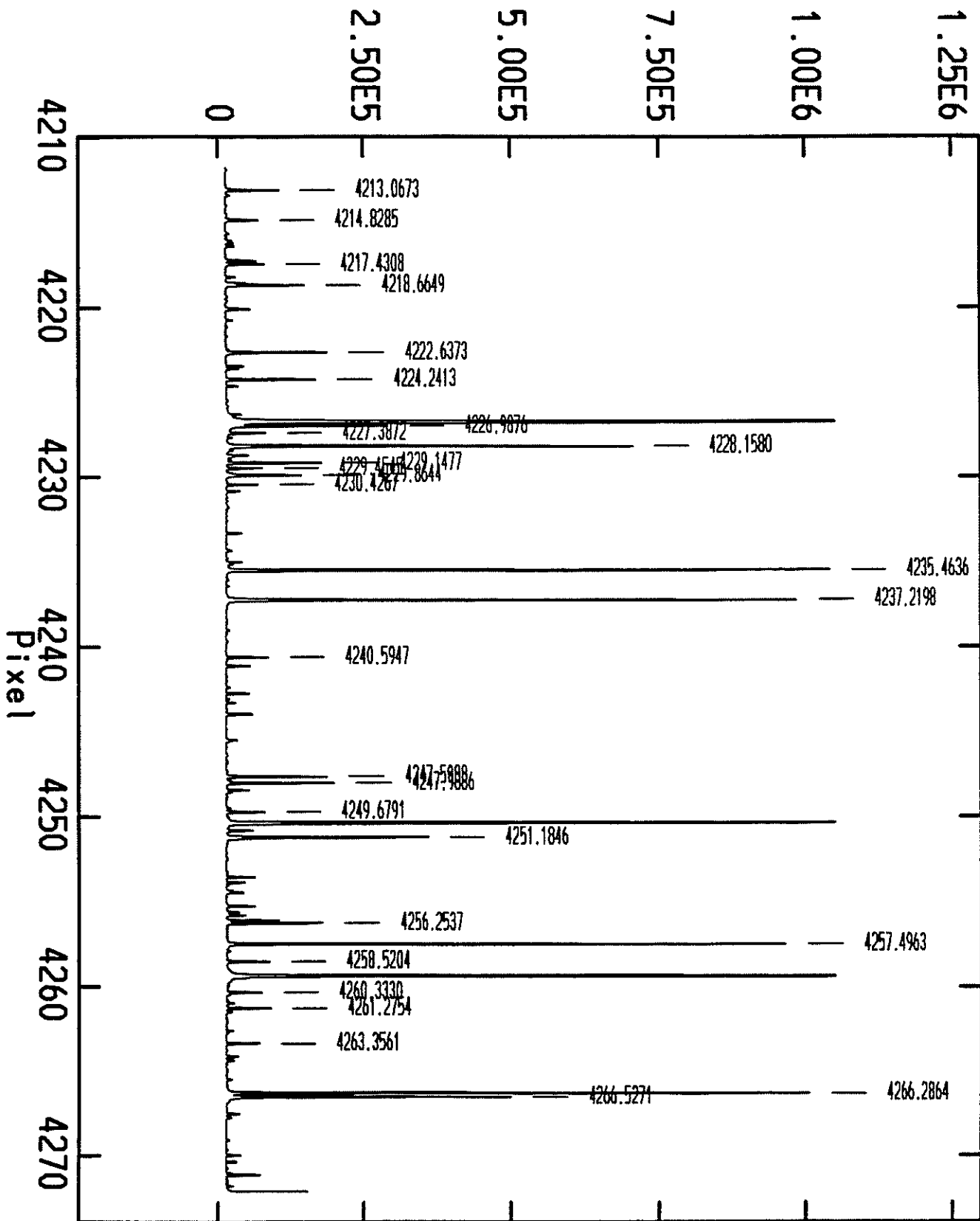
QA0/IRAF V2.10EXPORT pk_eumbra.l'sc.epy Mn 15:25:56 13-Sep-93
 Aperture Y Image W Ne Y Order 86
 identify data0264.ec: hor



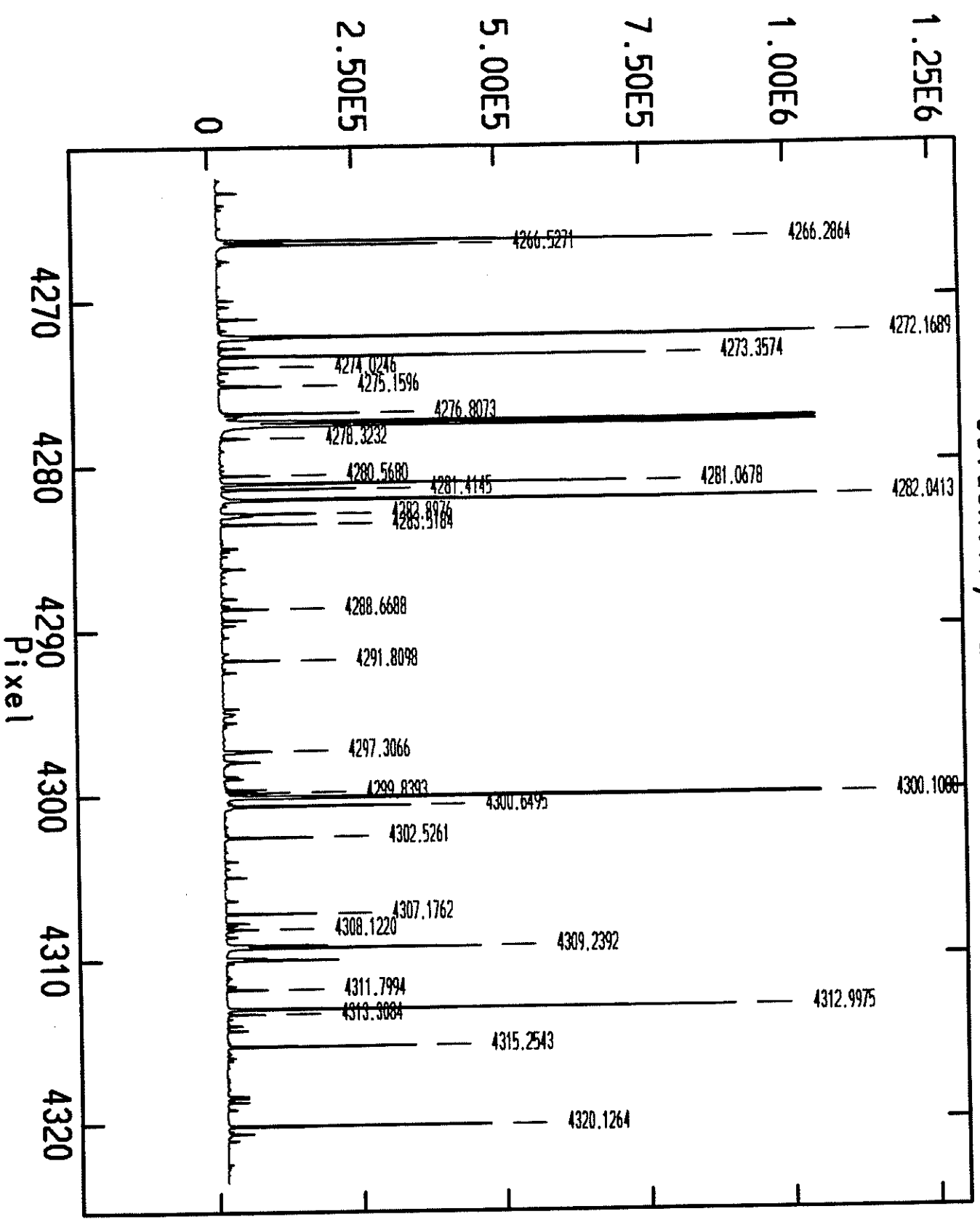
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Aperture 18 Image Line 18 Order 85
identify data0264.ec: hor



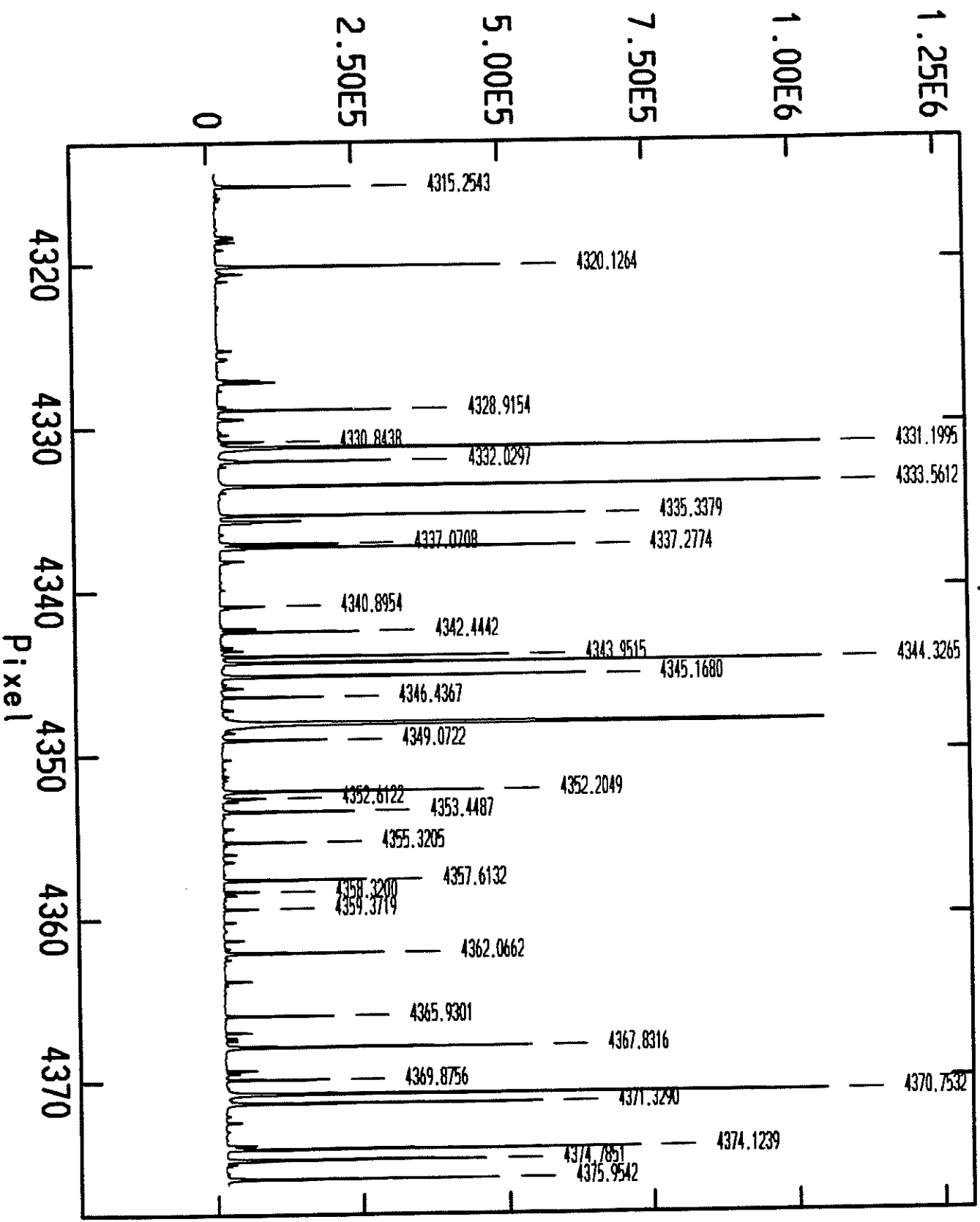
\NOAO\IRAF V2.10EXPORT pk@umbr.1\SC.EDU Mn 15:26:09 13-Sep-93
 Aperture Image File Order 84
 Identify data0264.ec: hor



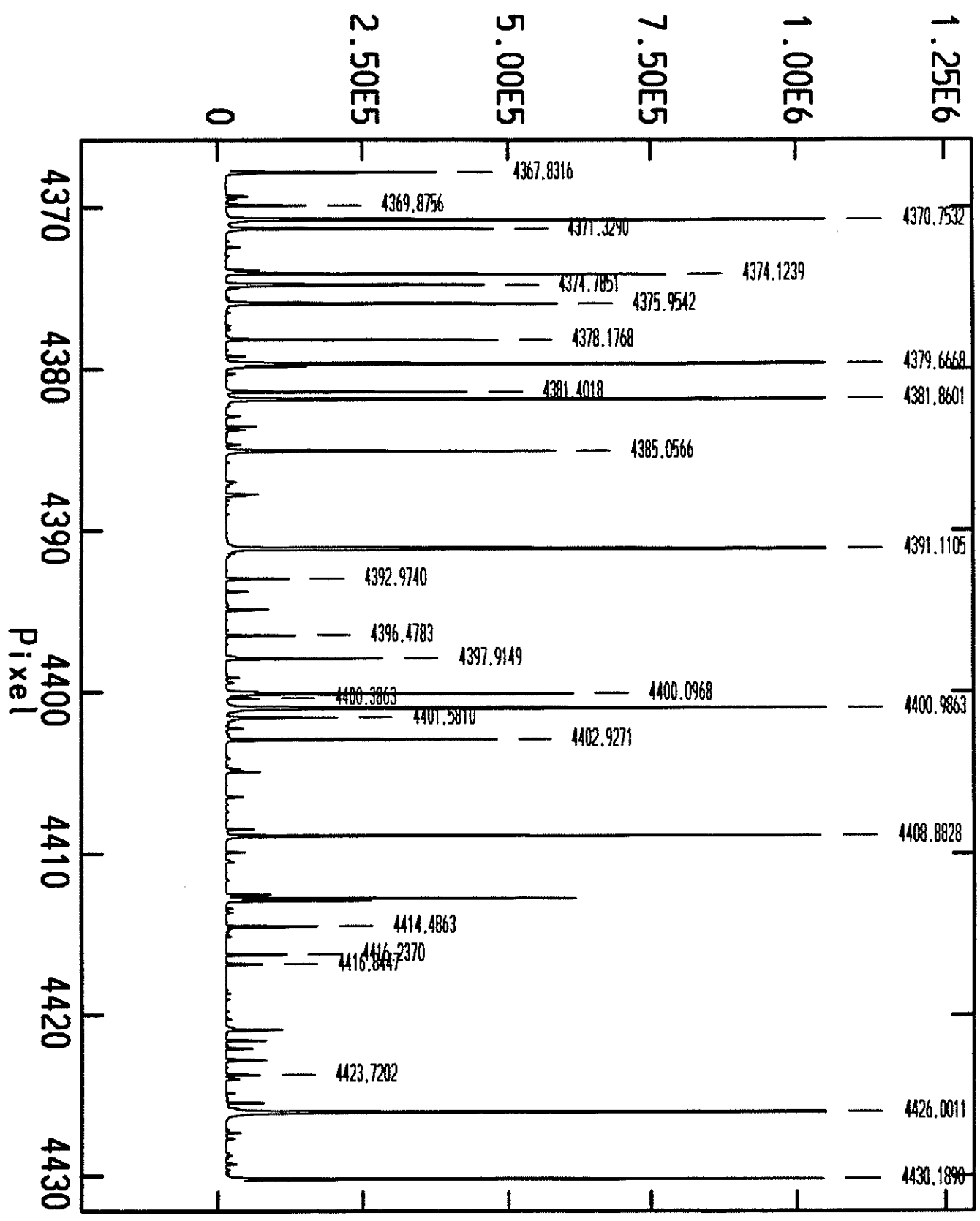
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 Aperture 20 Image file 20, Order 83
 identify data0264.ec: hor



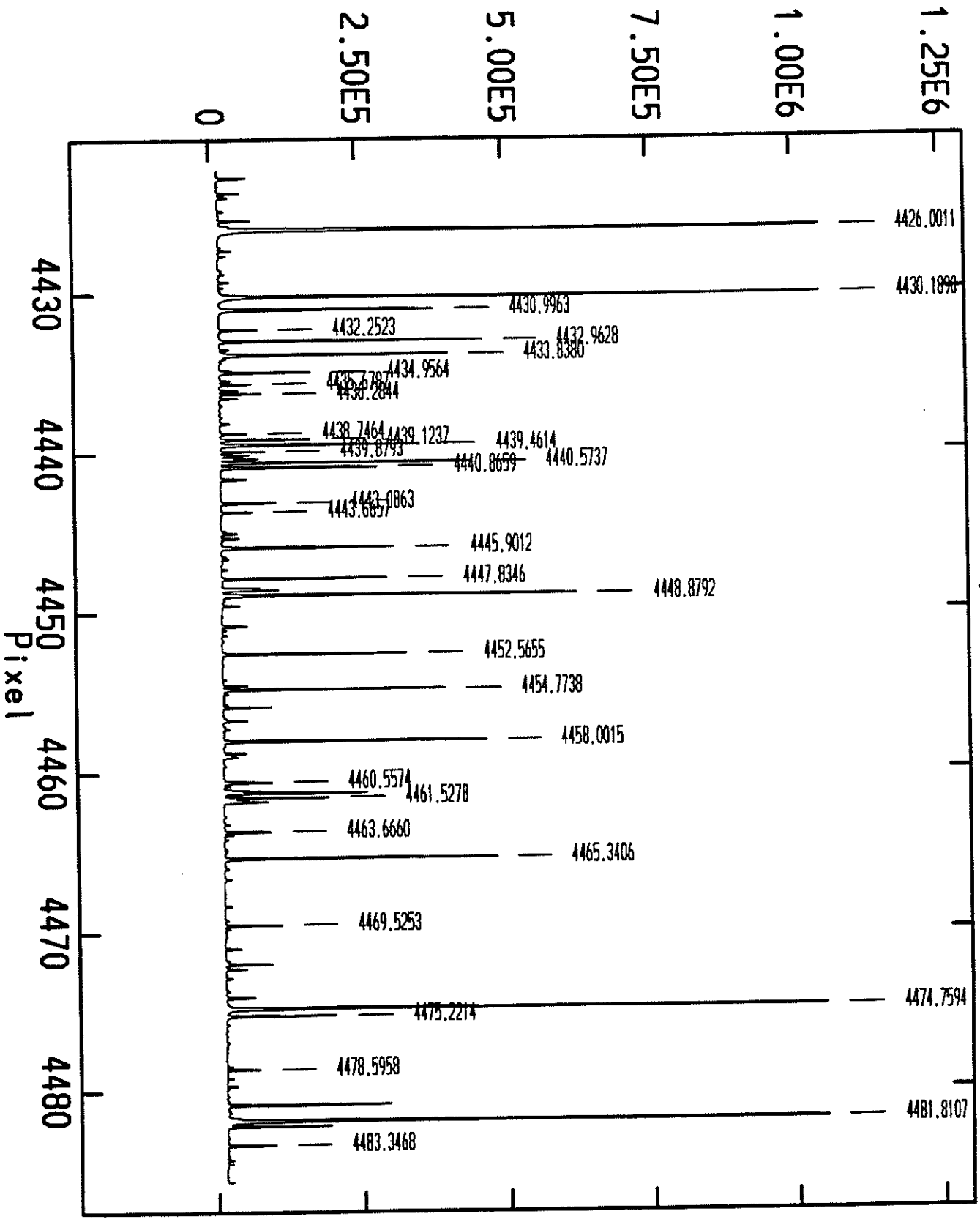
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 Aperture 21 Image file 0264.ec: hor
 Identify data



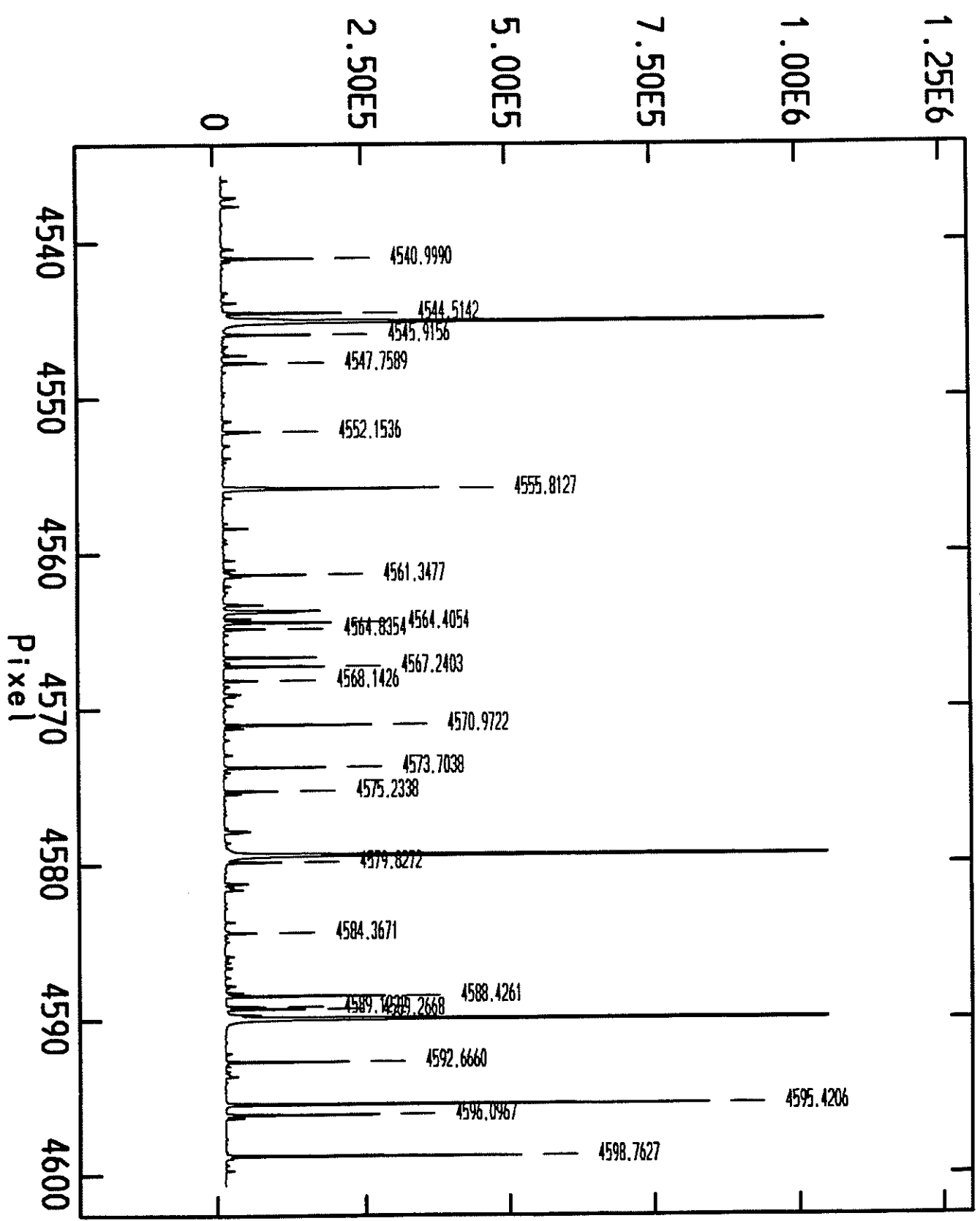
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 Identify data 0264.ec: hor



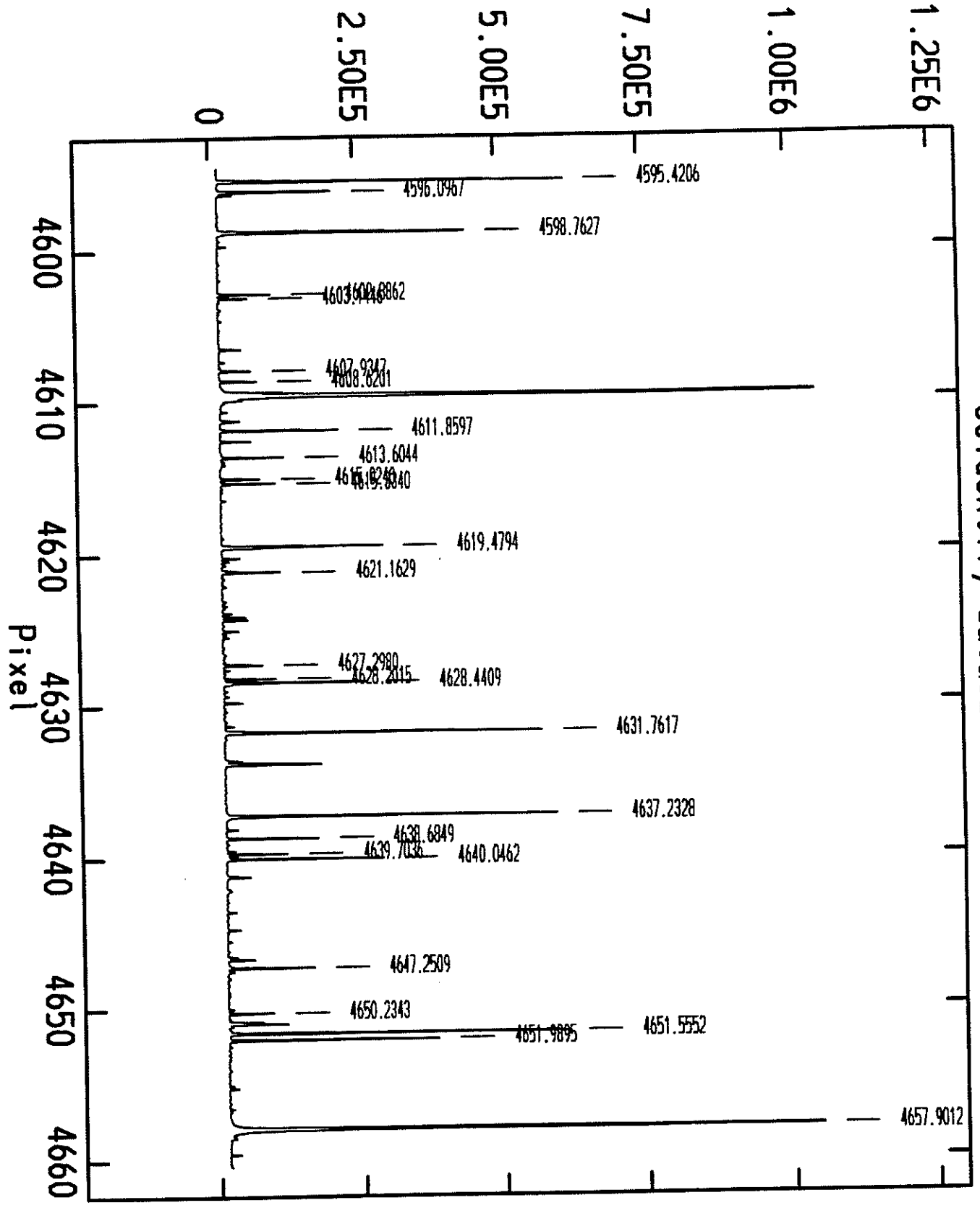
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 identify data0264.ec: hor



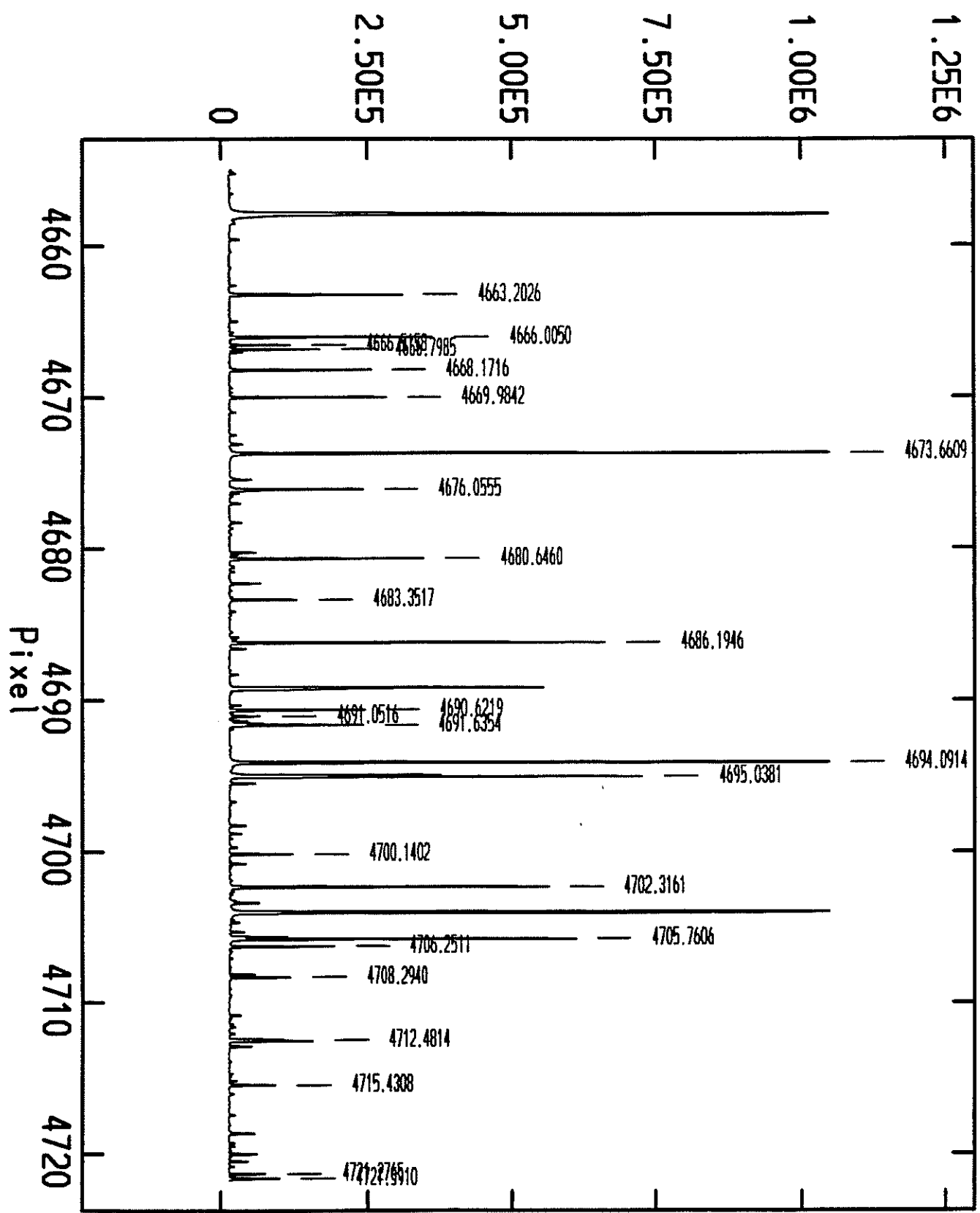
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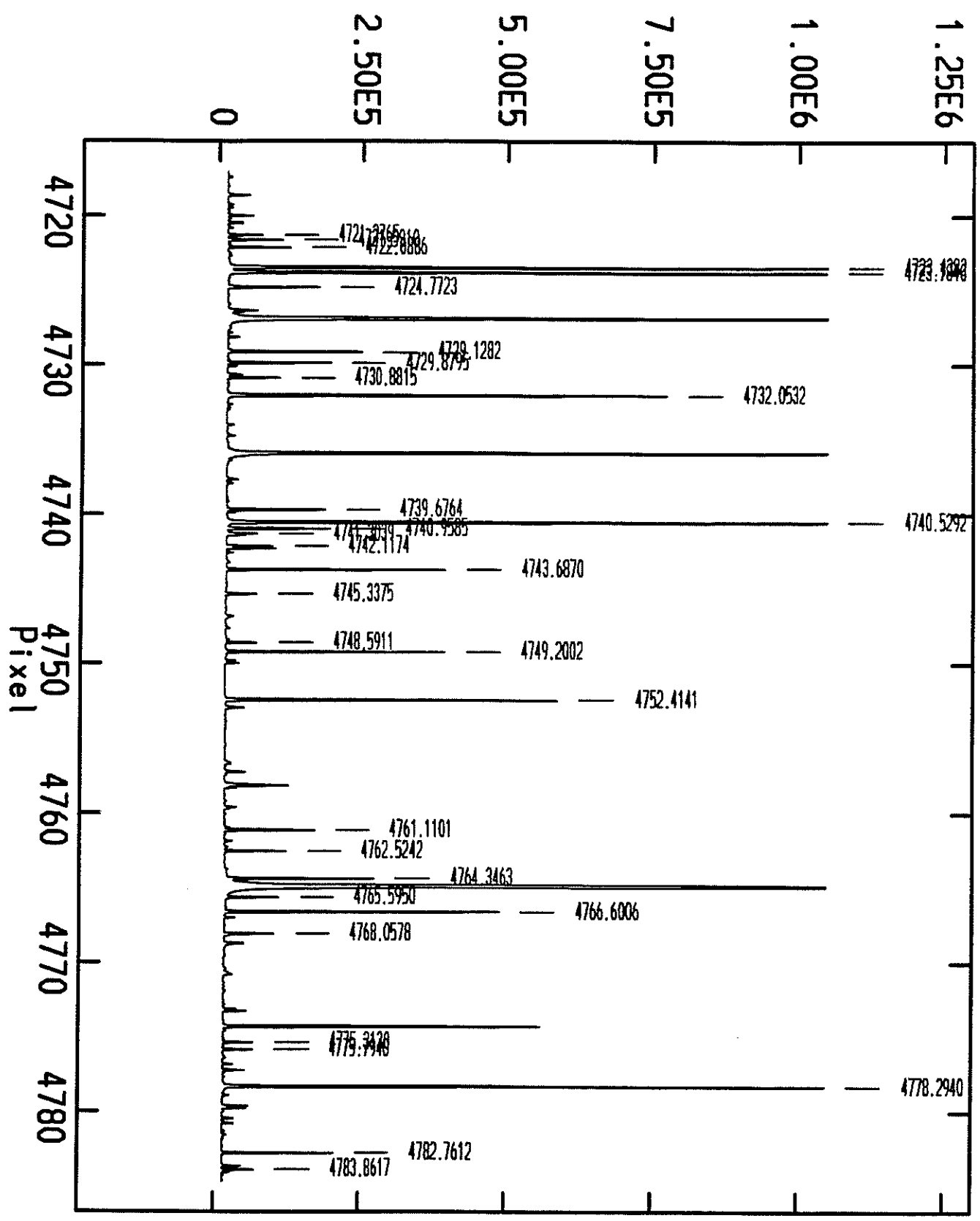
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 identify data 0264.ec: hor



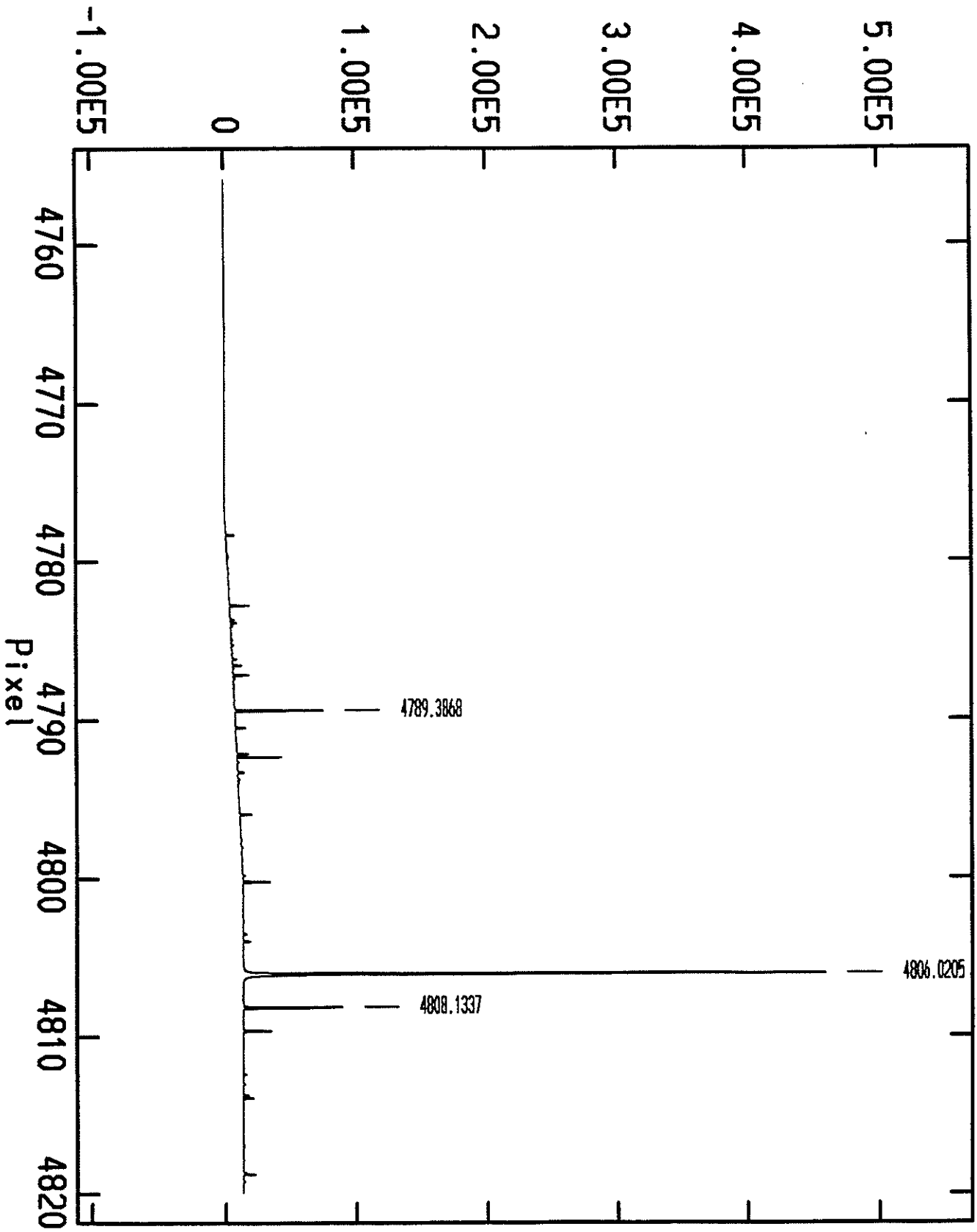
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 Aperture 27, Image 1, Order 76
 Identify data: hor



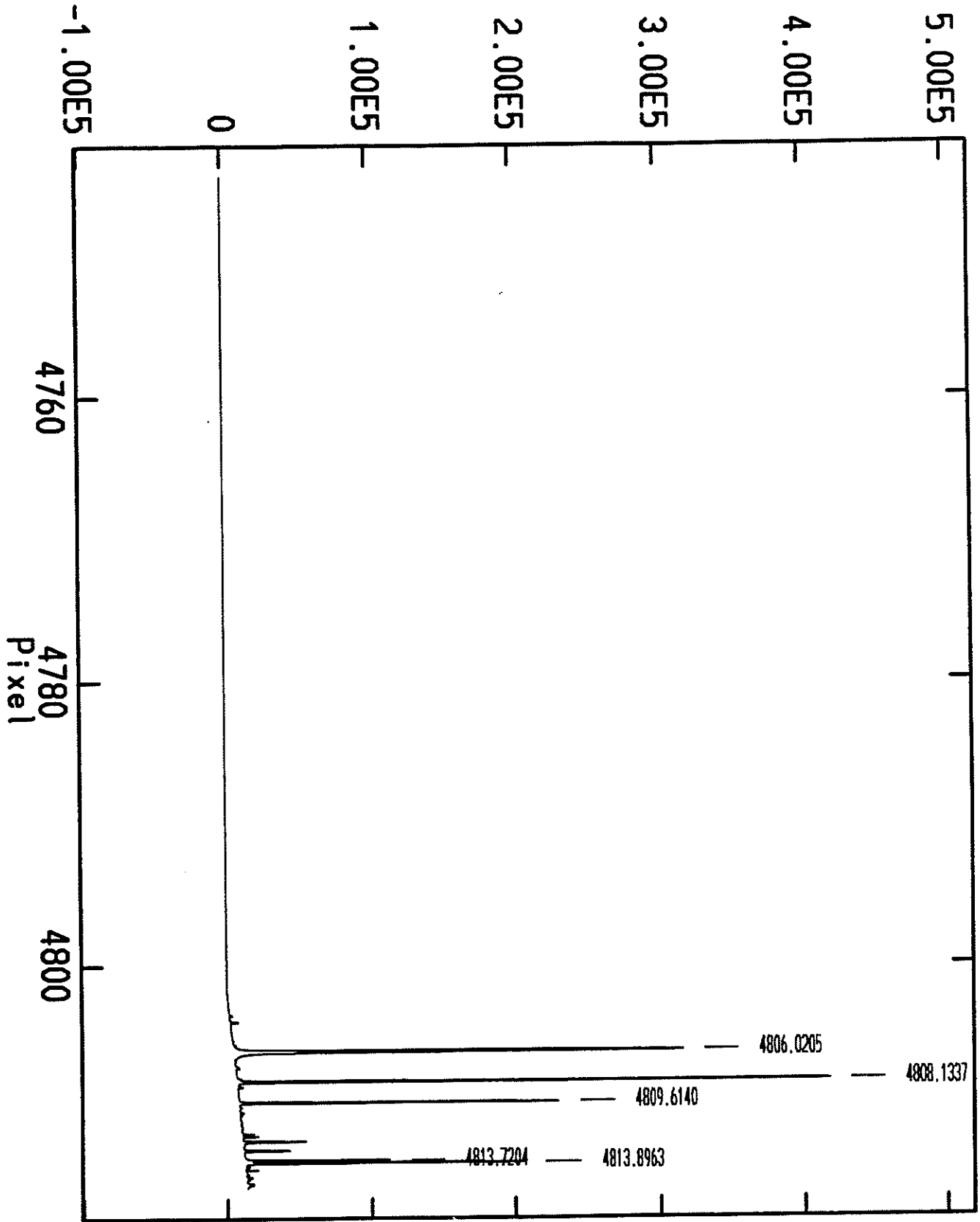
NOAO/IRAF V2.10EXPORT mkoumbra.ucsc.edu Mon 15:27:12 13-Sep-93
Aperture 28 Image file 28 Order 75
Identify data 0264.ec: hor



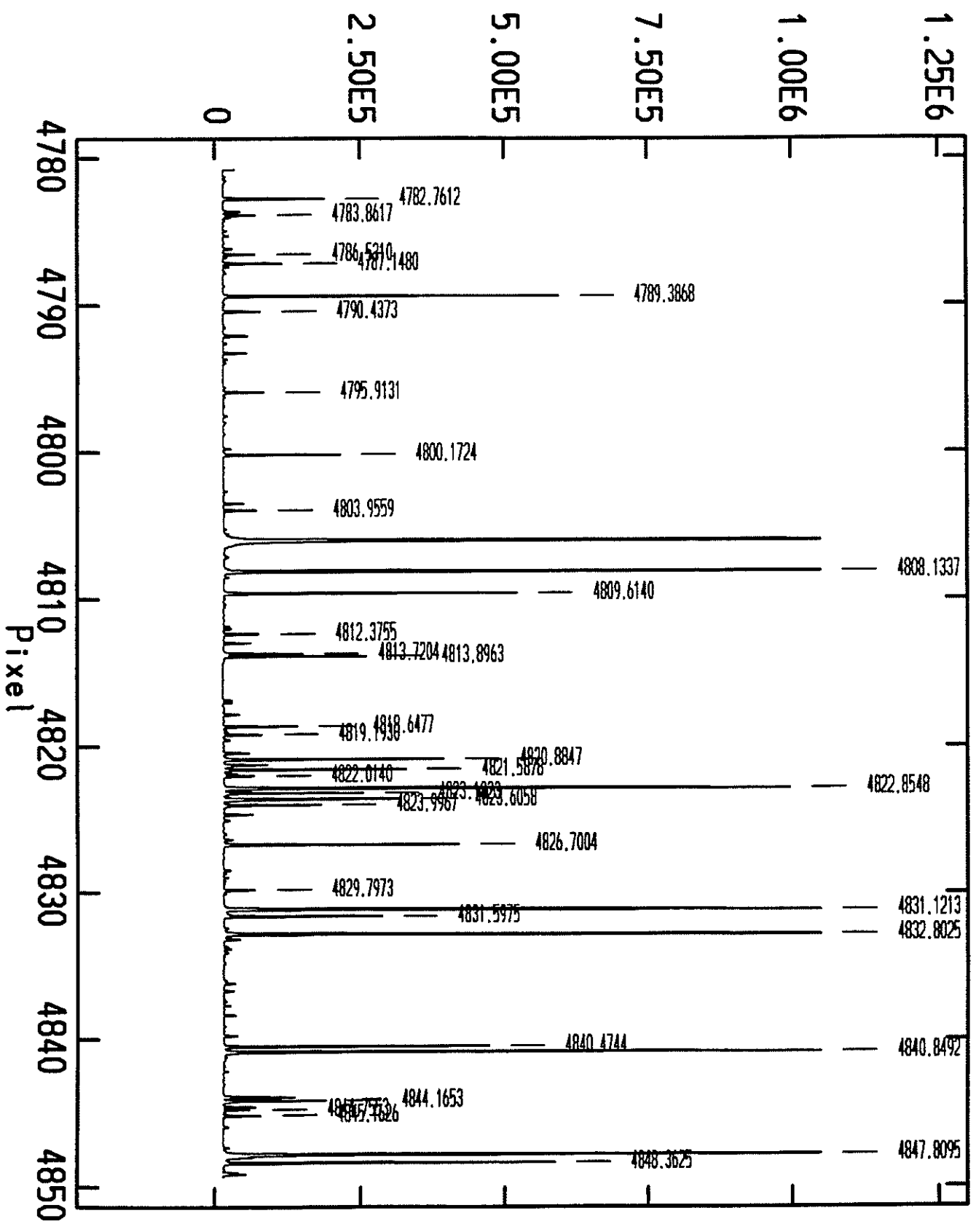
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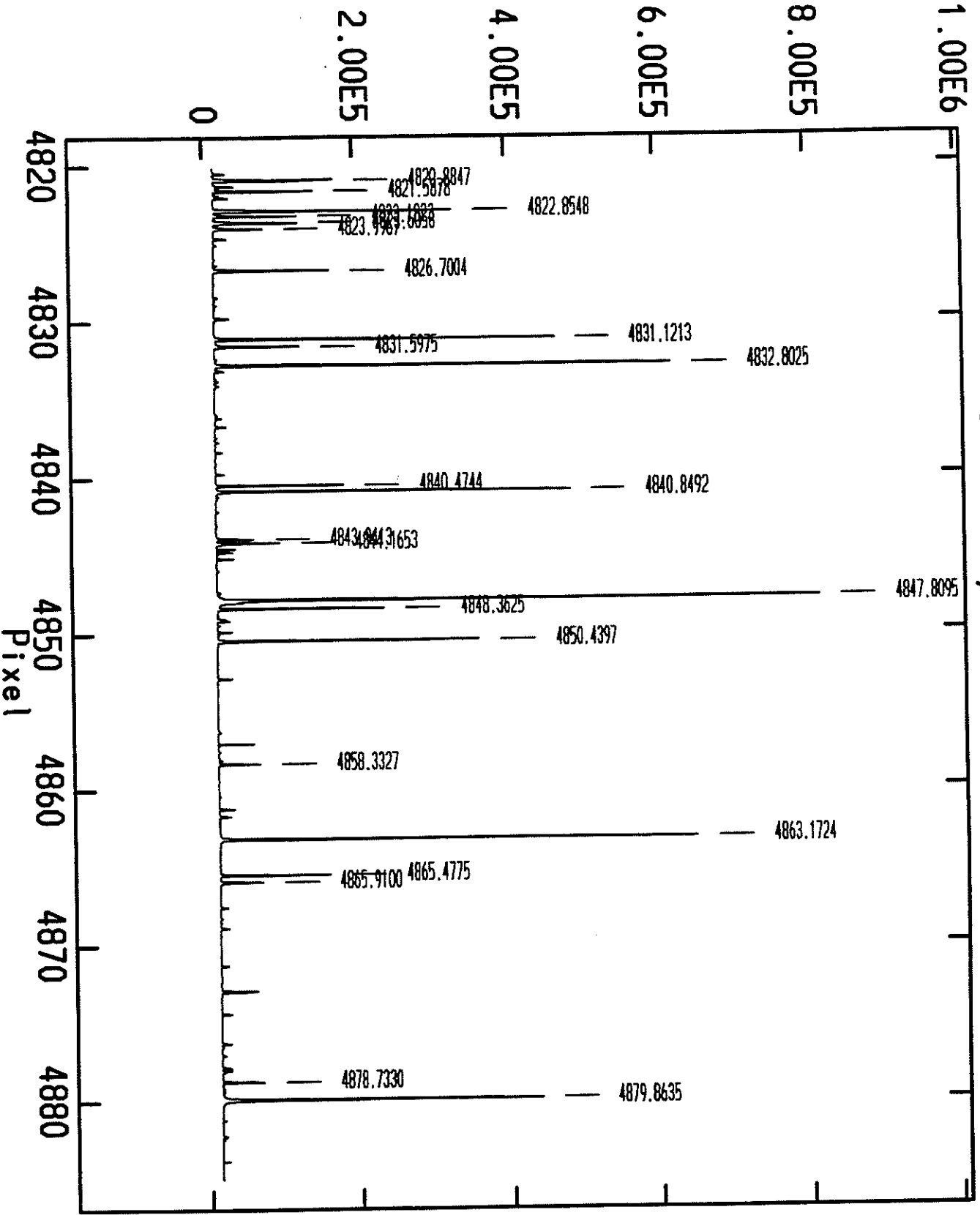
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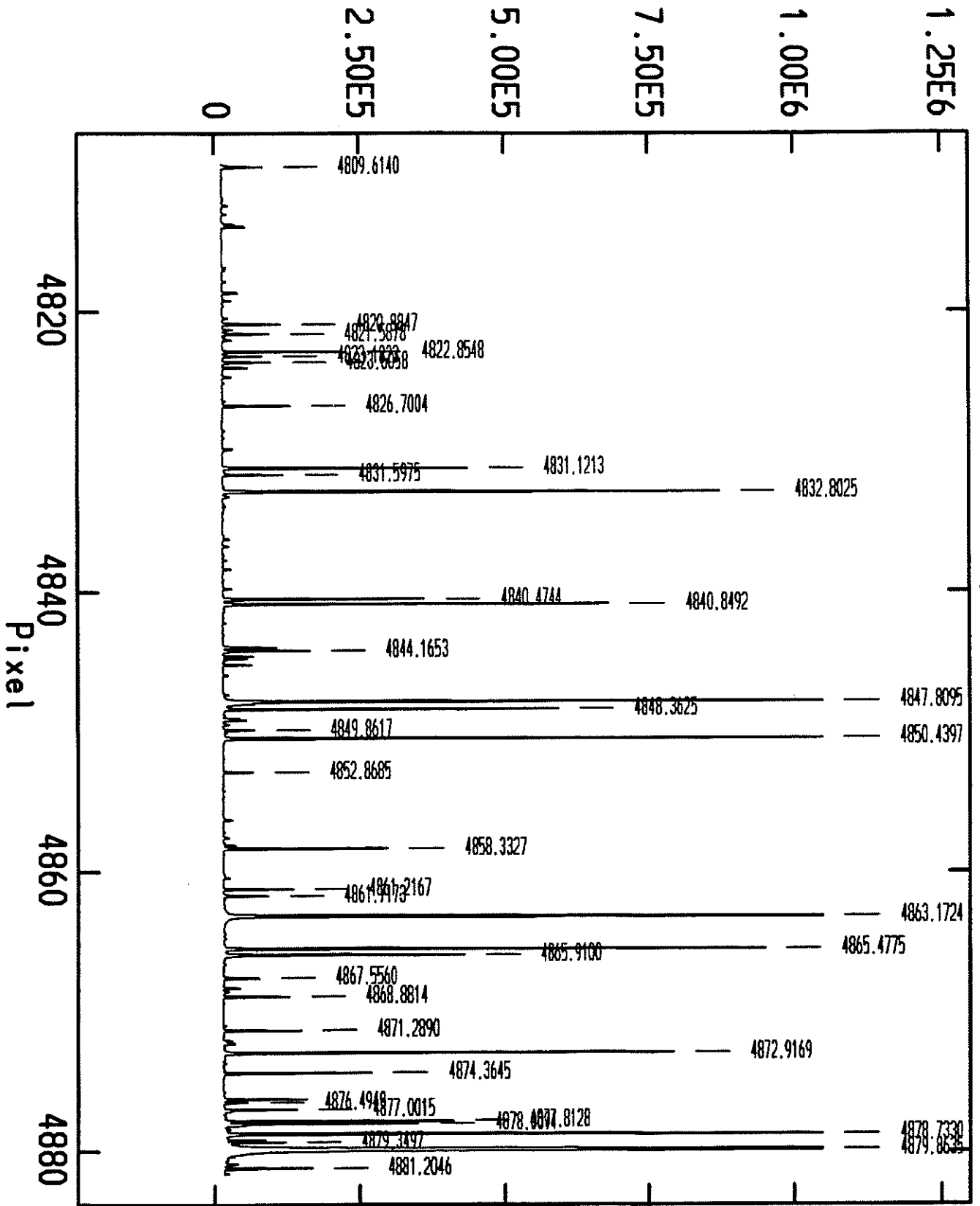
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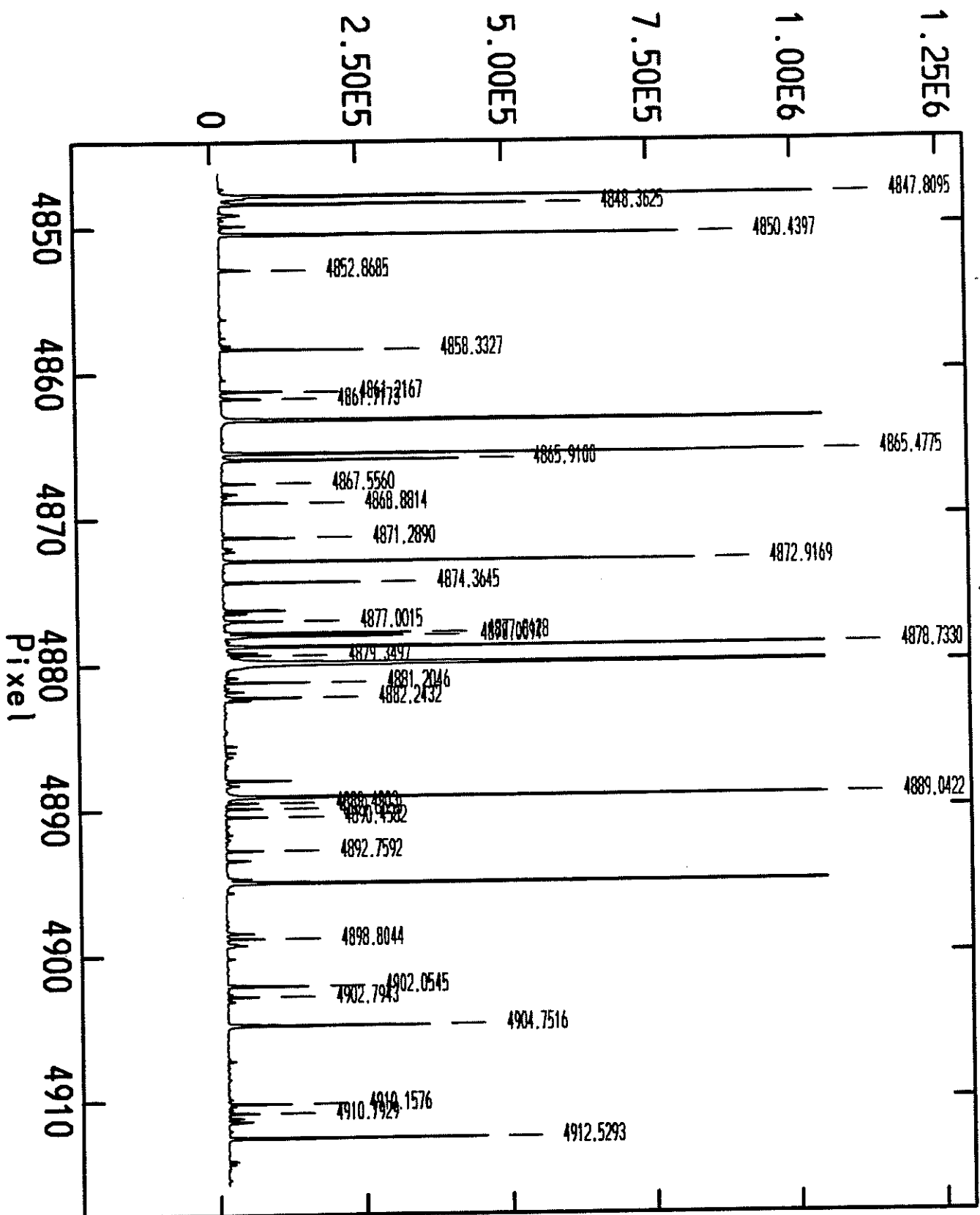
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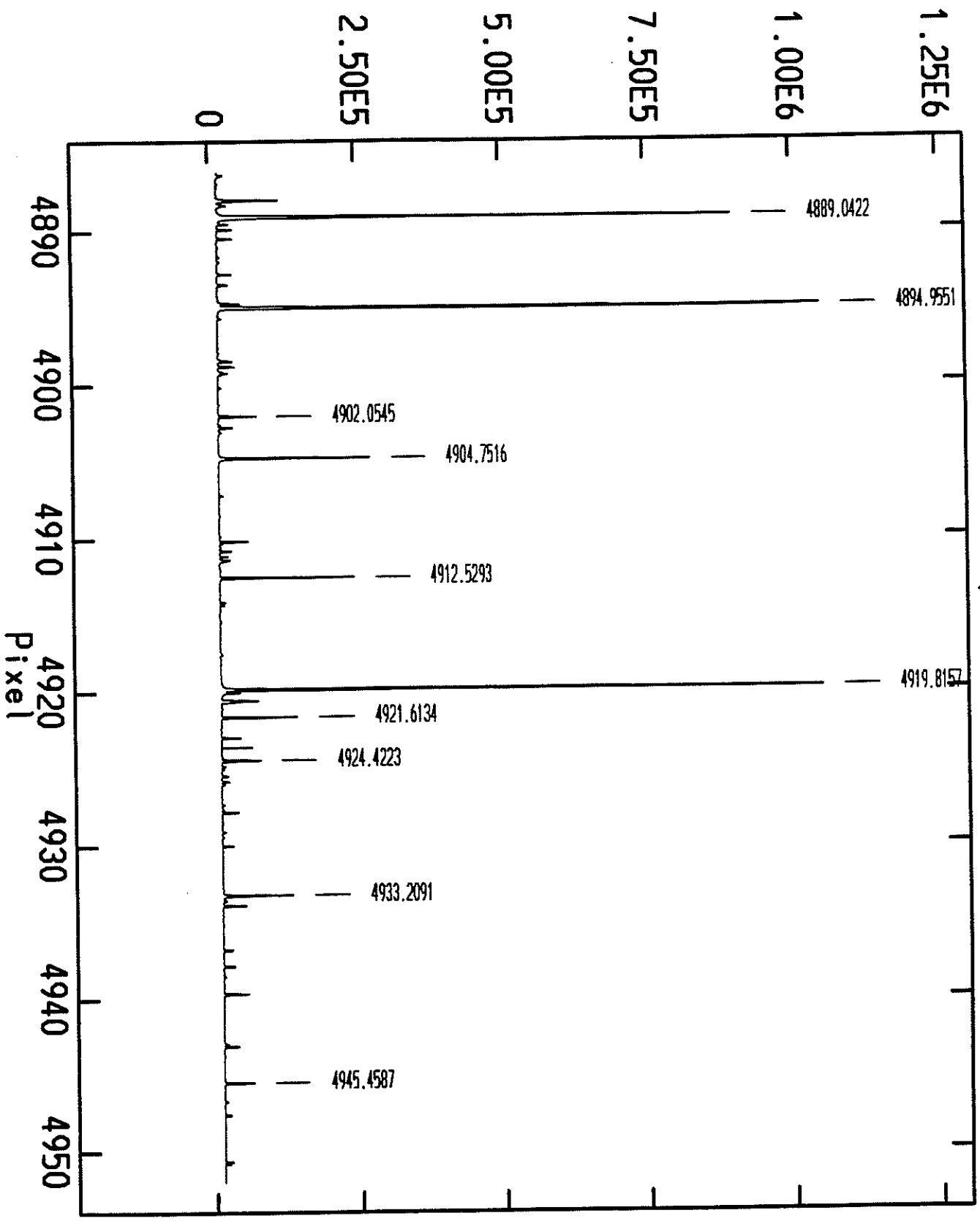
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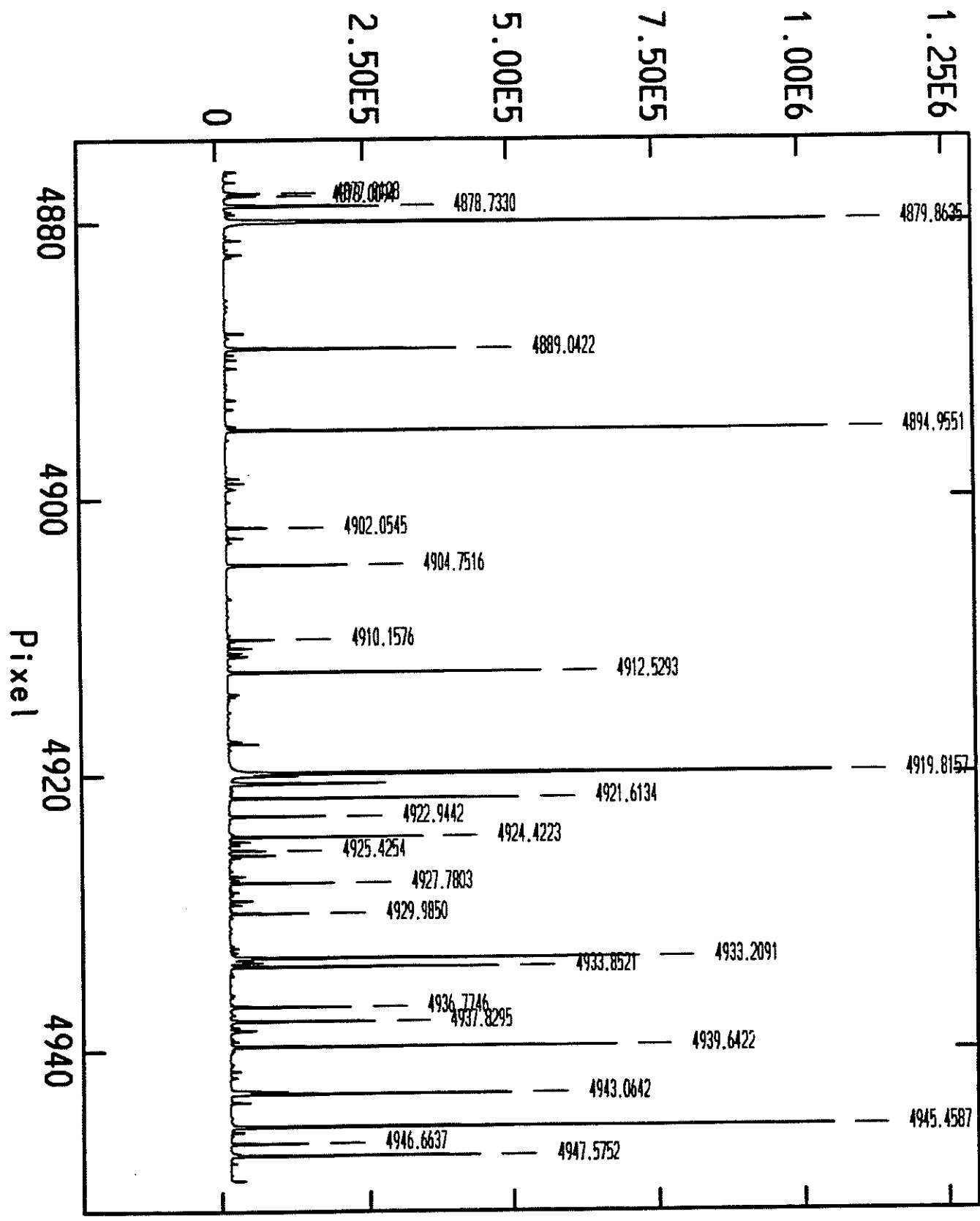
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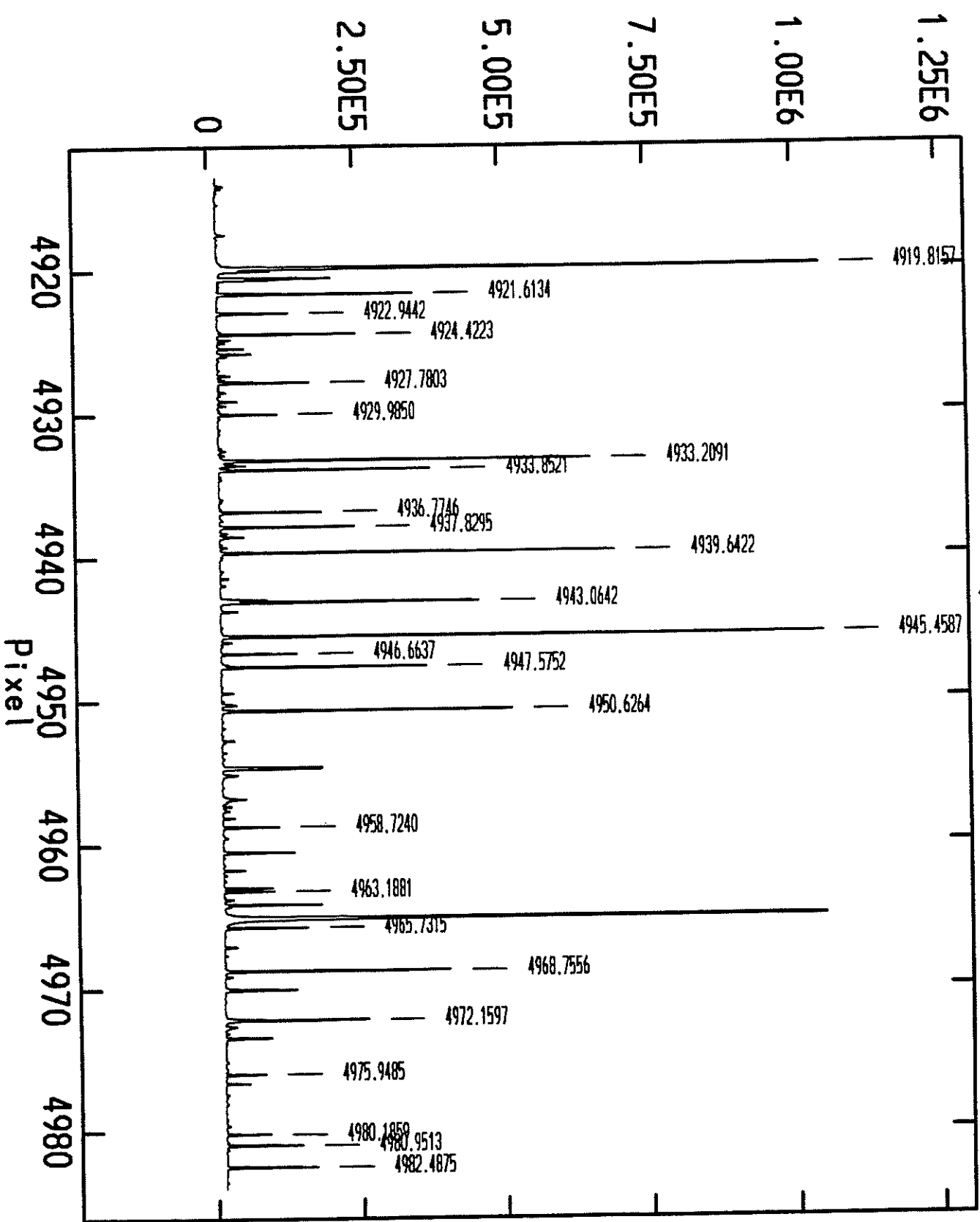
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Identify data0271.ec: hor



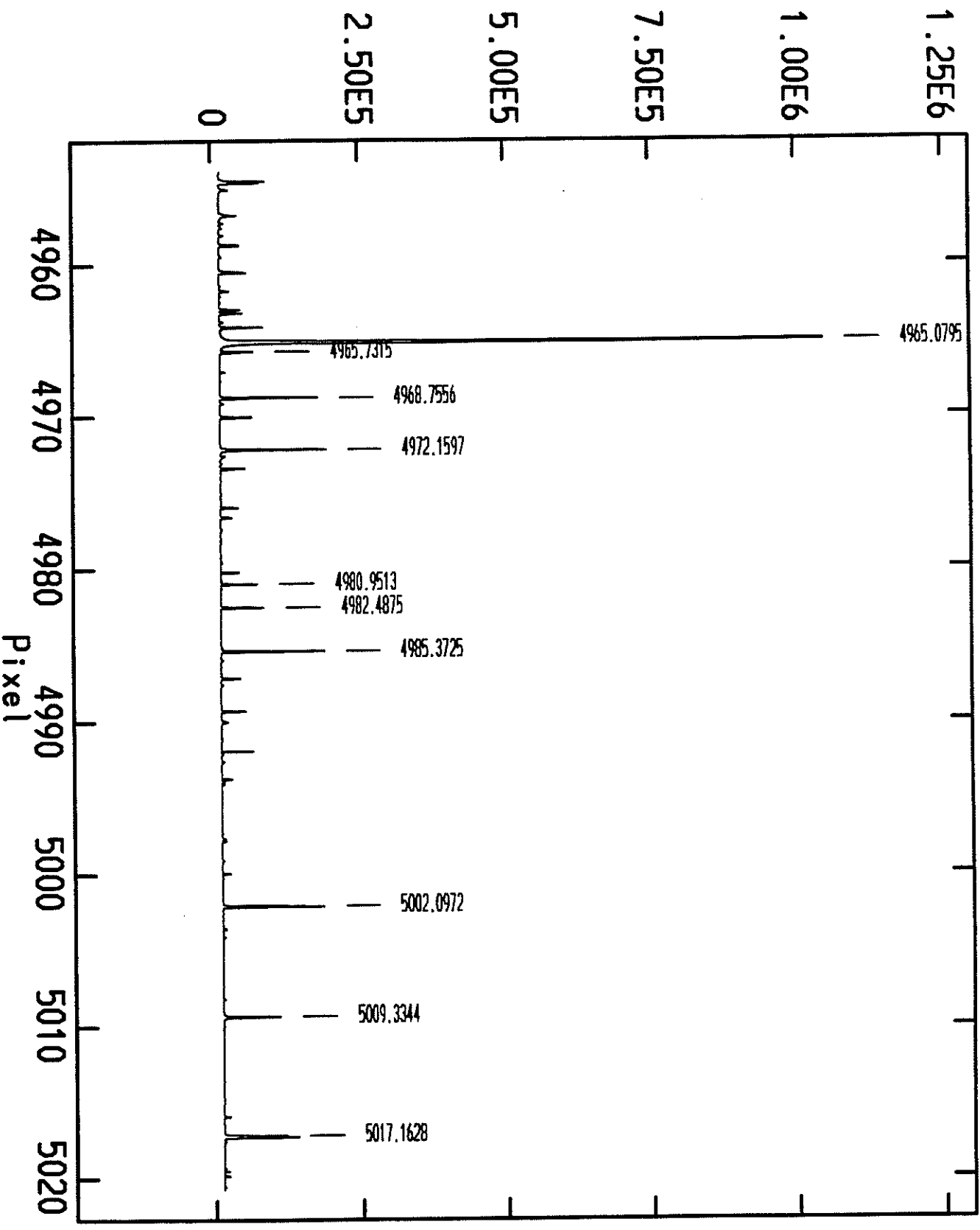
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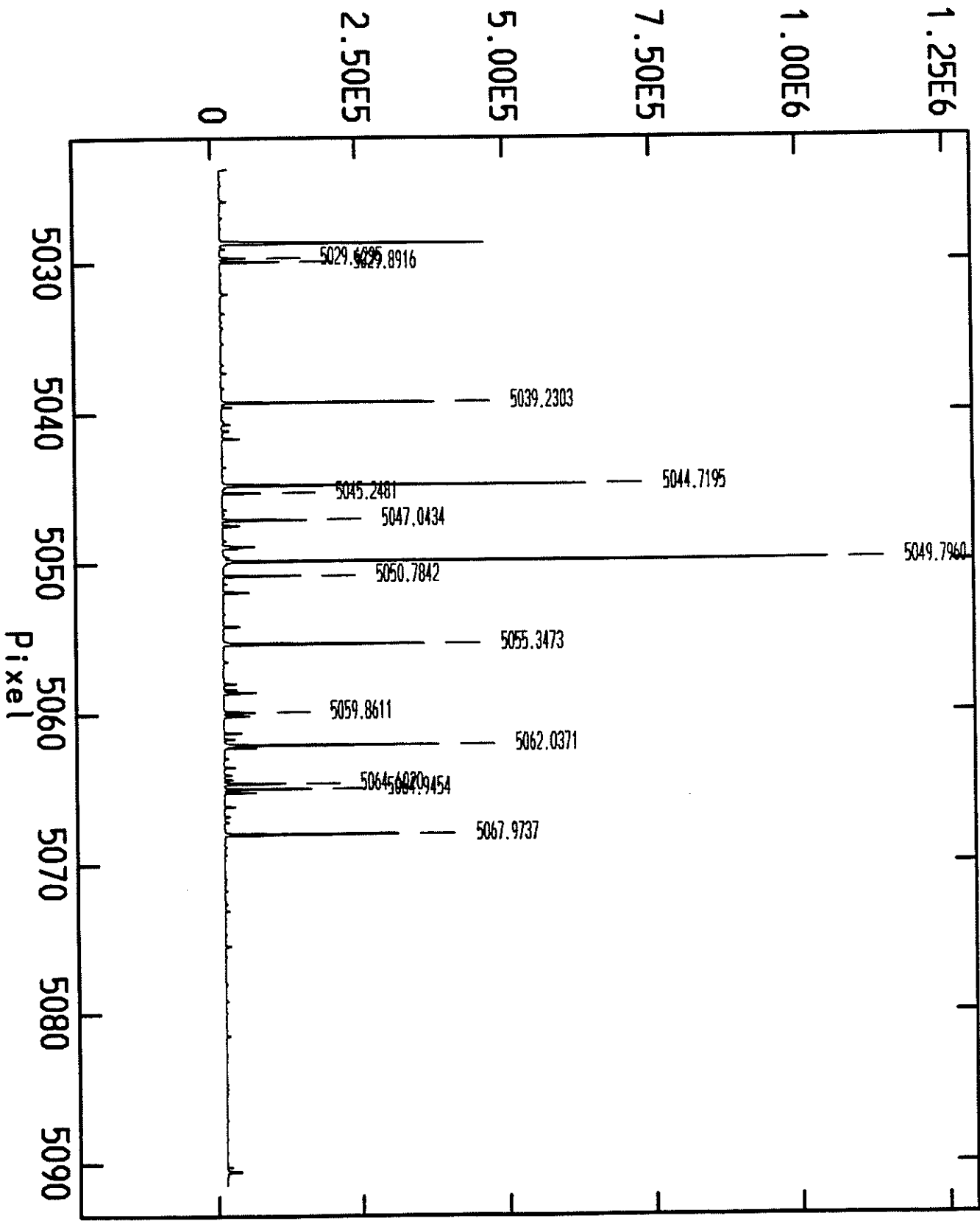
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Aperture 31 Image 111e 31 Order 72
identify data 0264.ec: hor



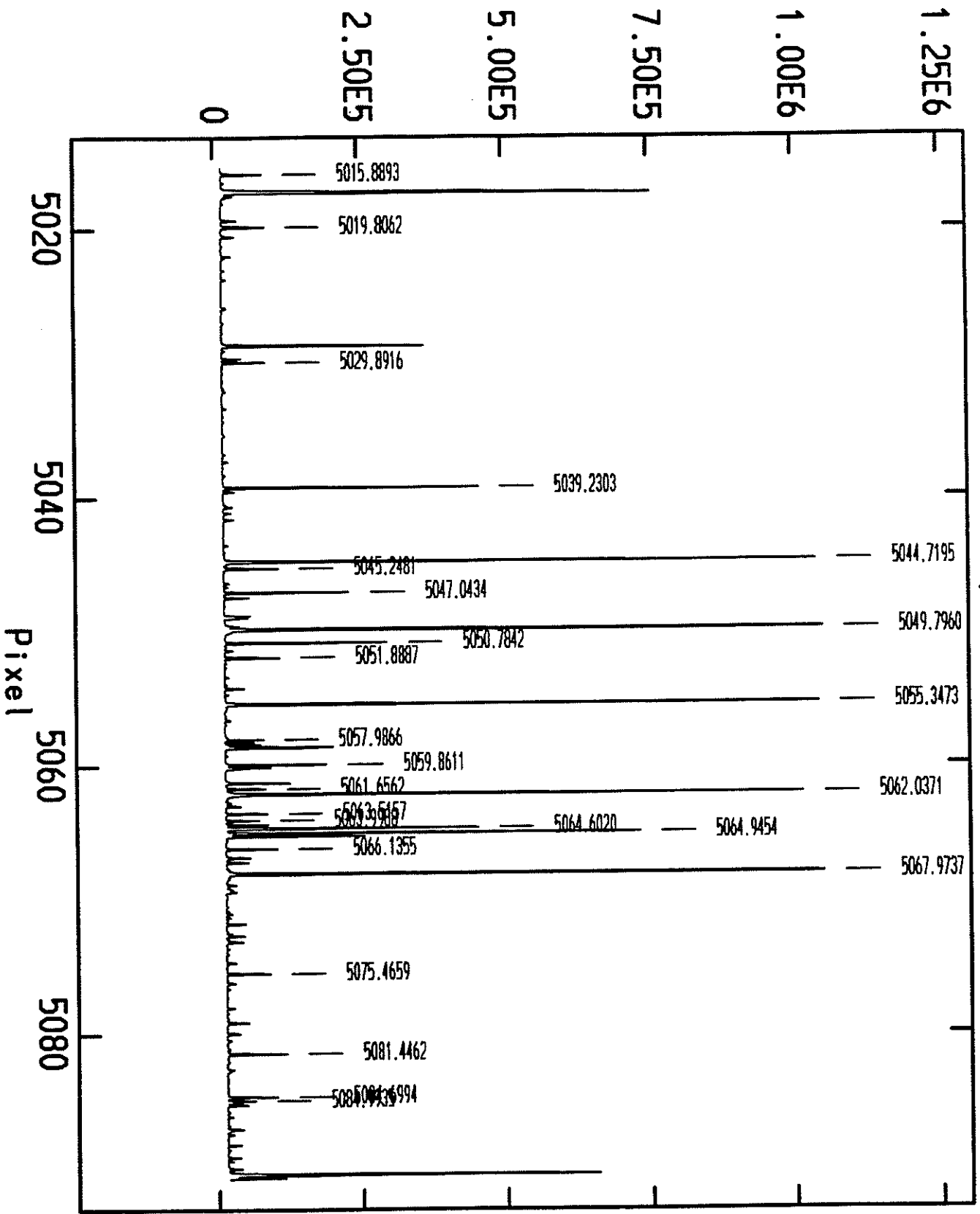
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identify data0271.ec: hor



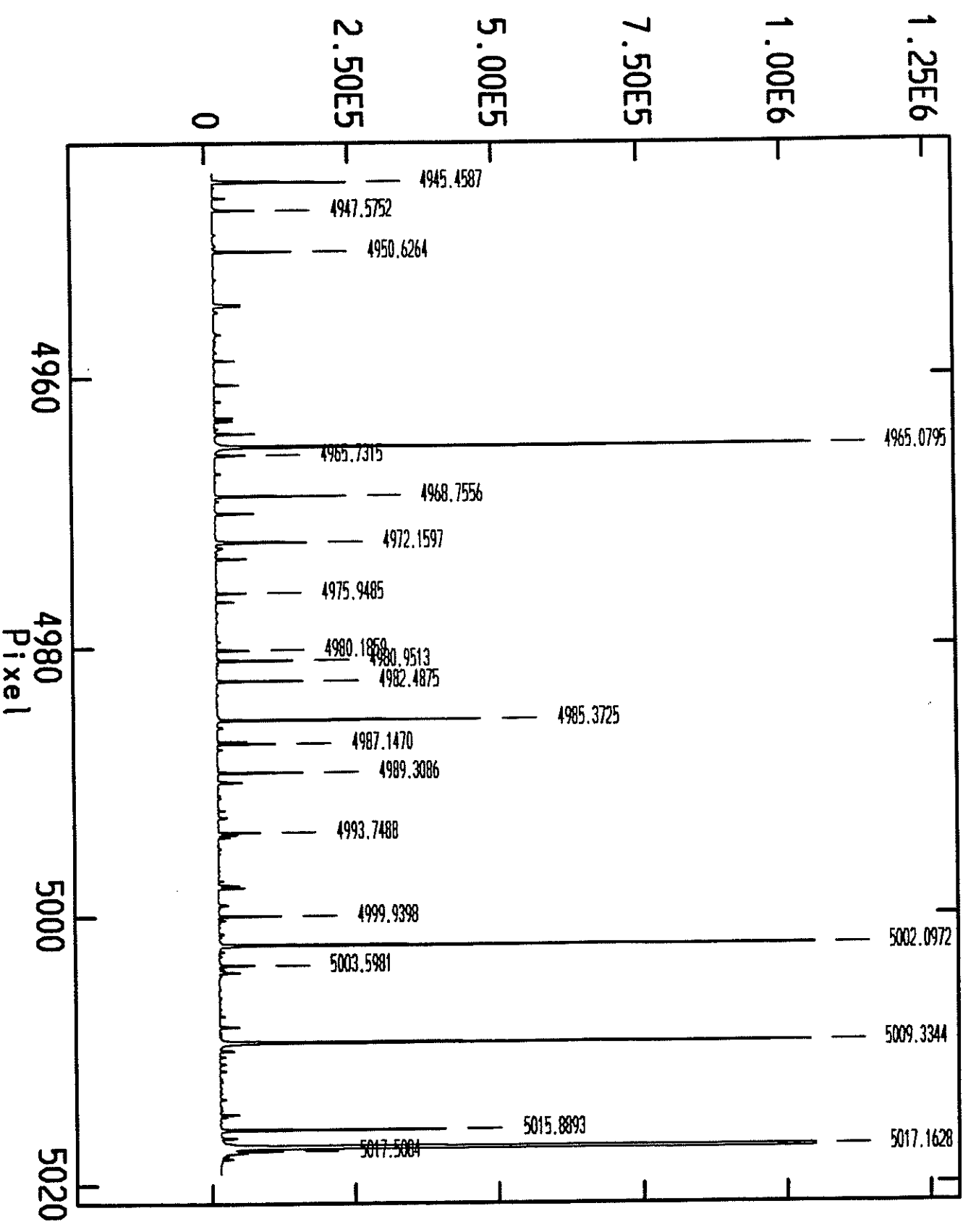
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Aperture 5 Image file 5 Order 7
Identify data 0271.ec: hor



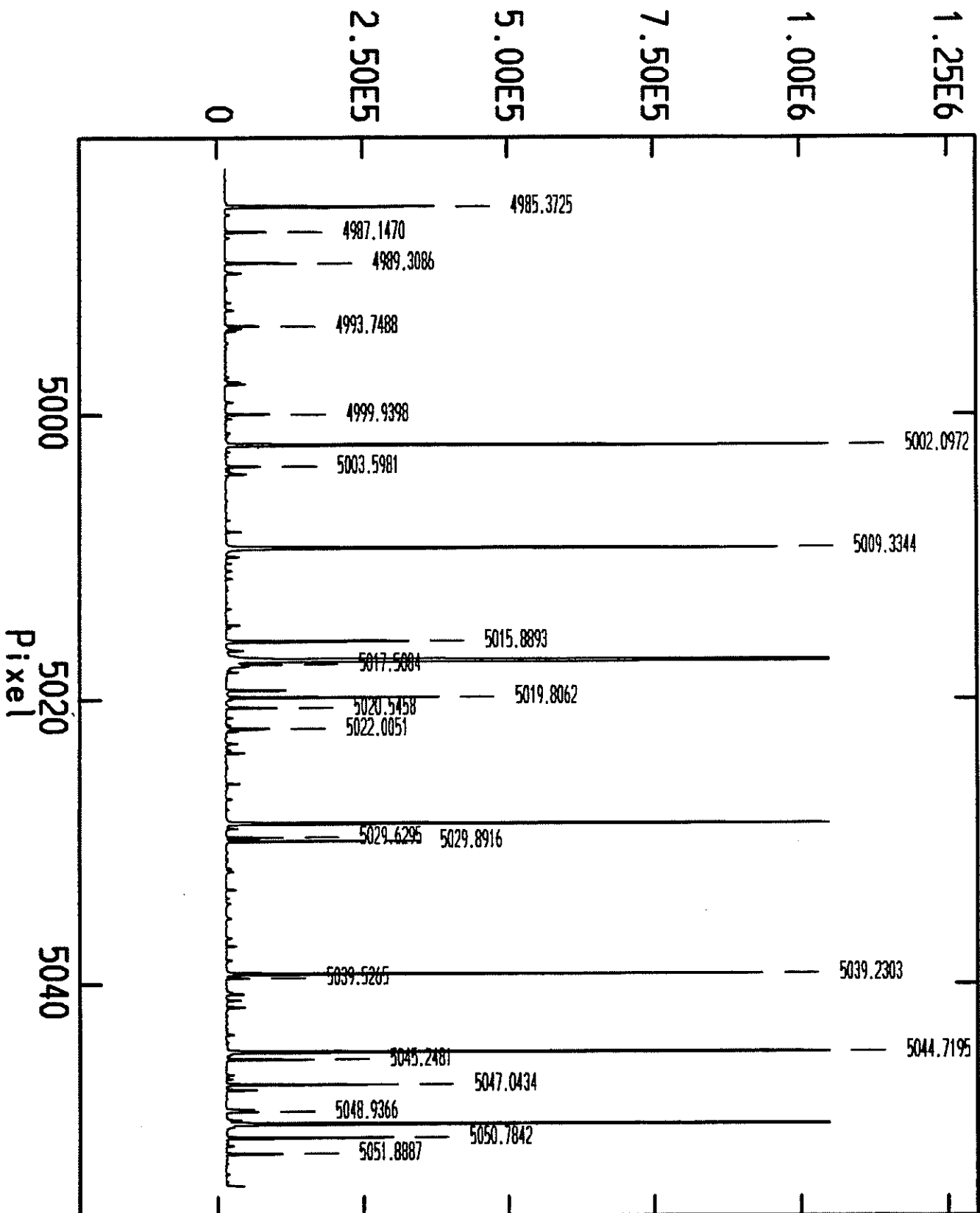
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Aperture 5. Image file 5. Order 70
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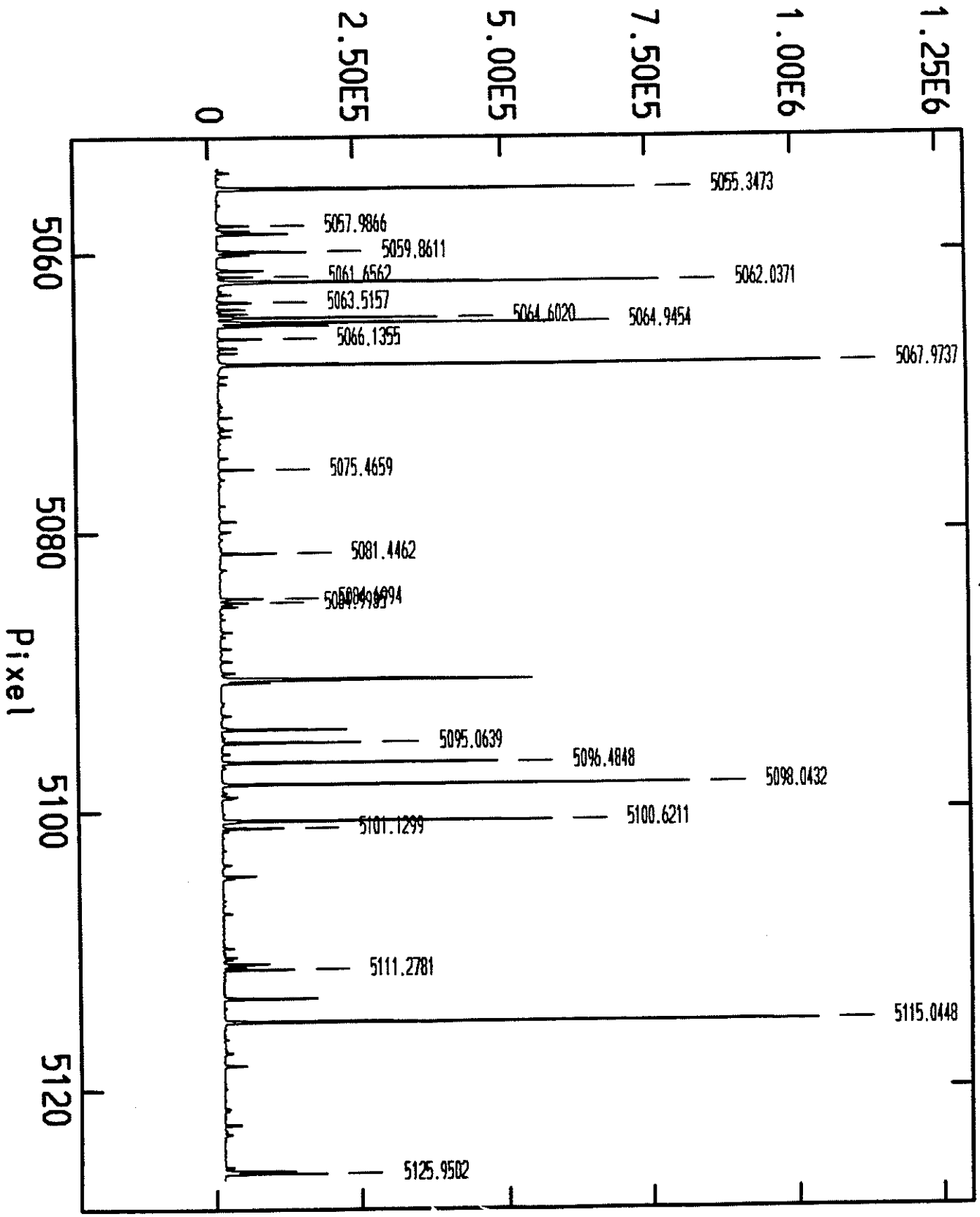
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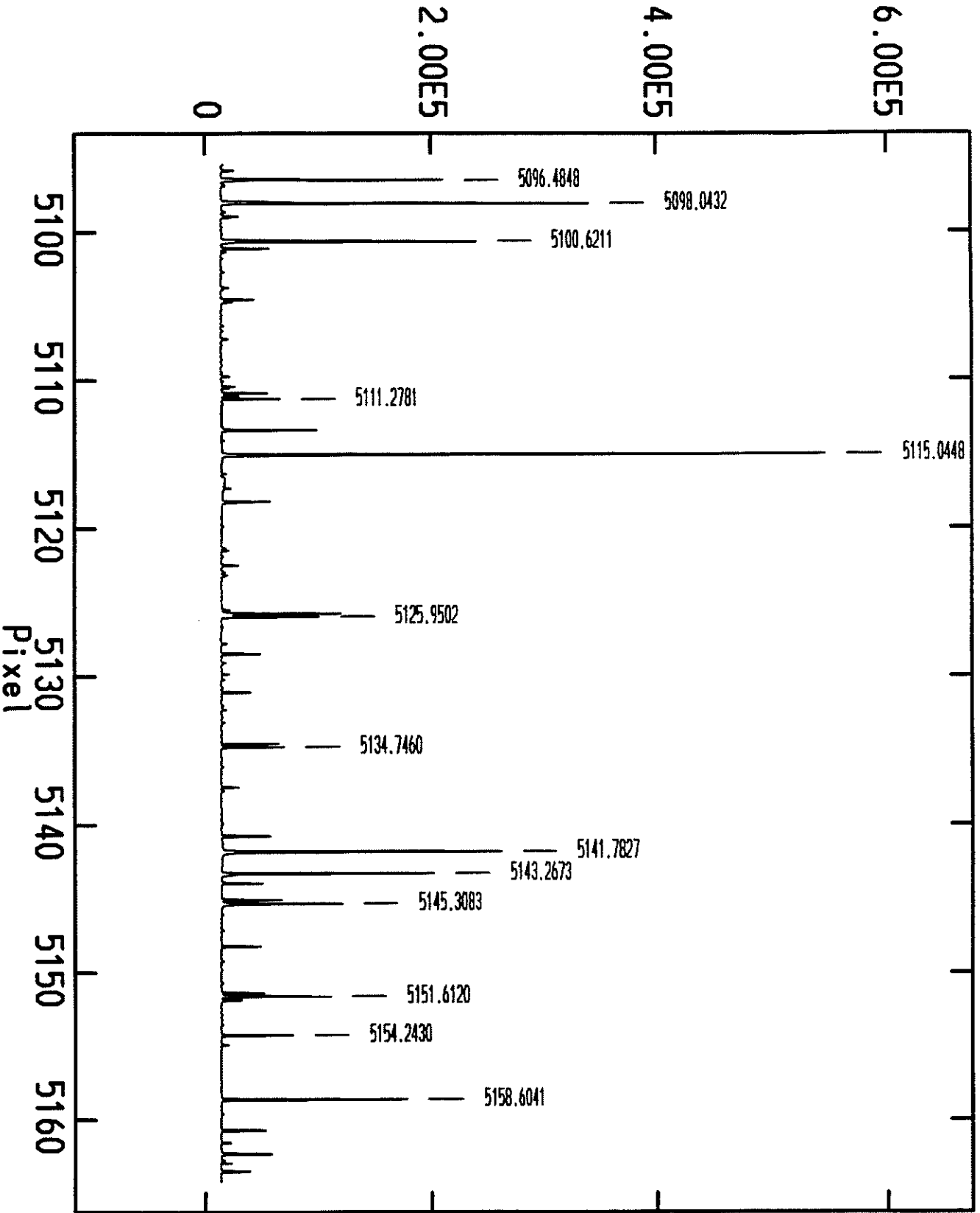


NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 15:27:33 13-Sep-93
 Aperture 32 Image Line 32 Order
 identify data0264.ec: hor

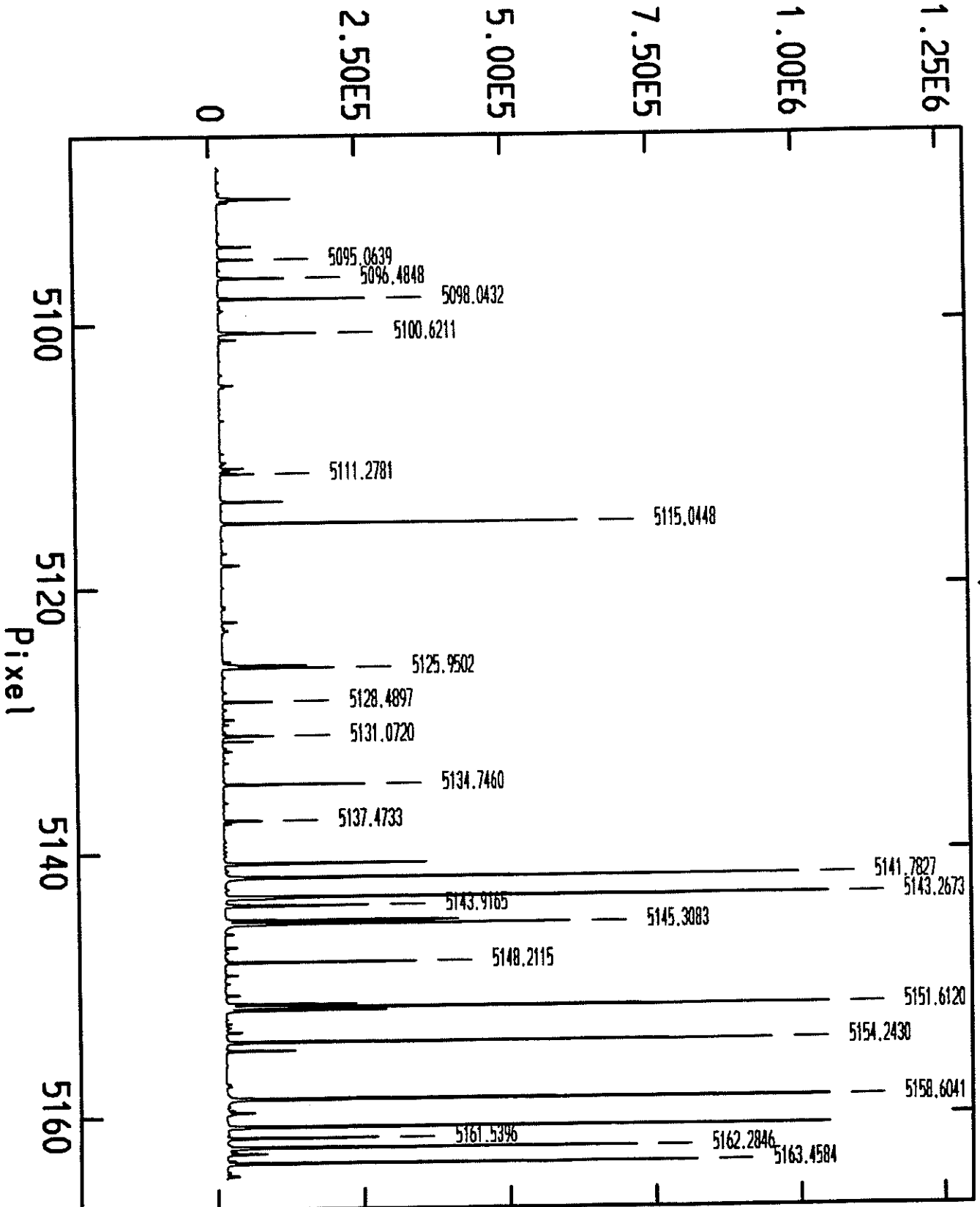


NOAO/IRAF V2.10EXPORT μ kyumbra CSC:EDU Mgn 15:27:38 13-Sep-93
 Aperture 33 Image Line 33 Order 76
 identify data0264.ec: hor

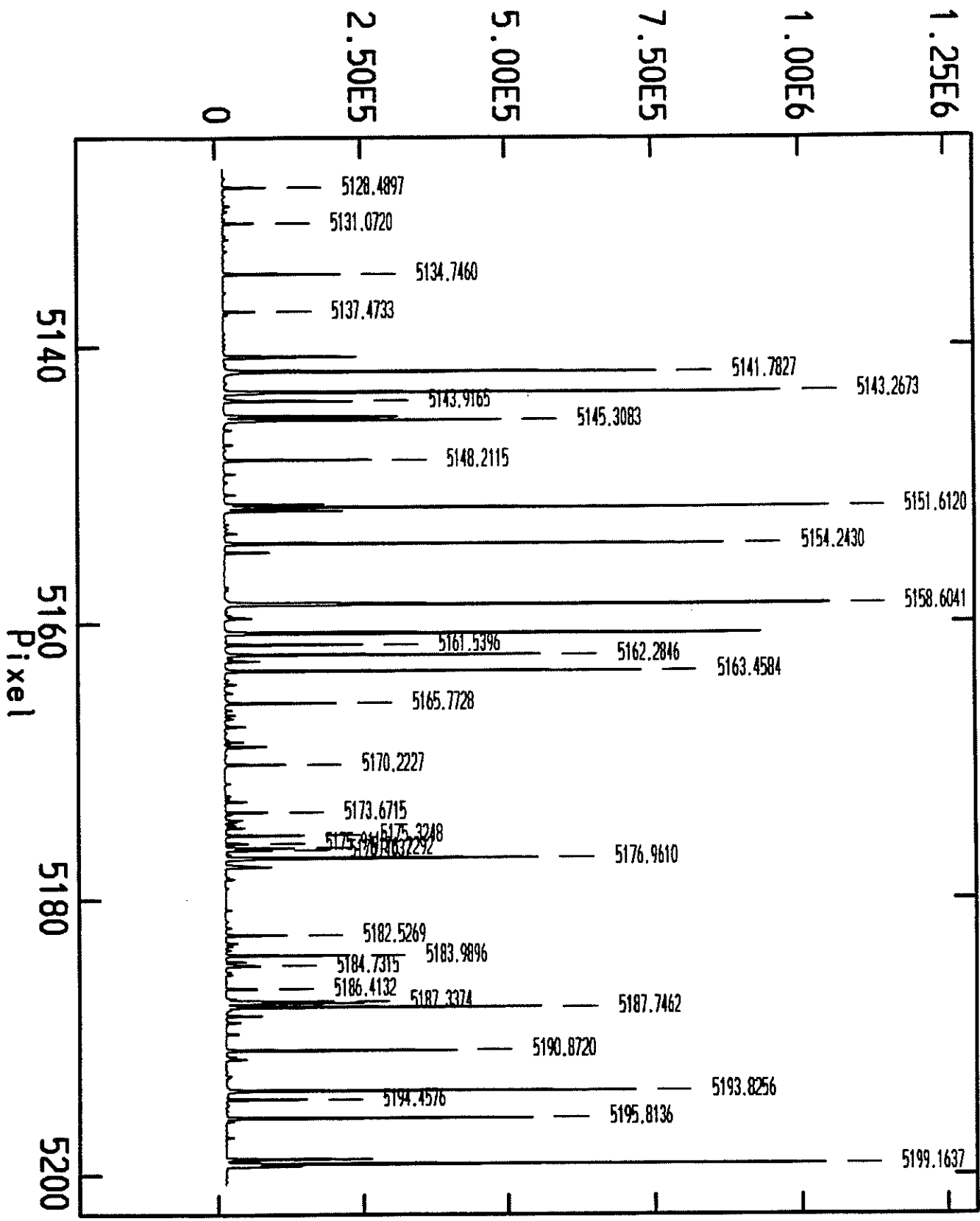




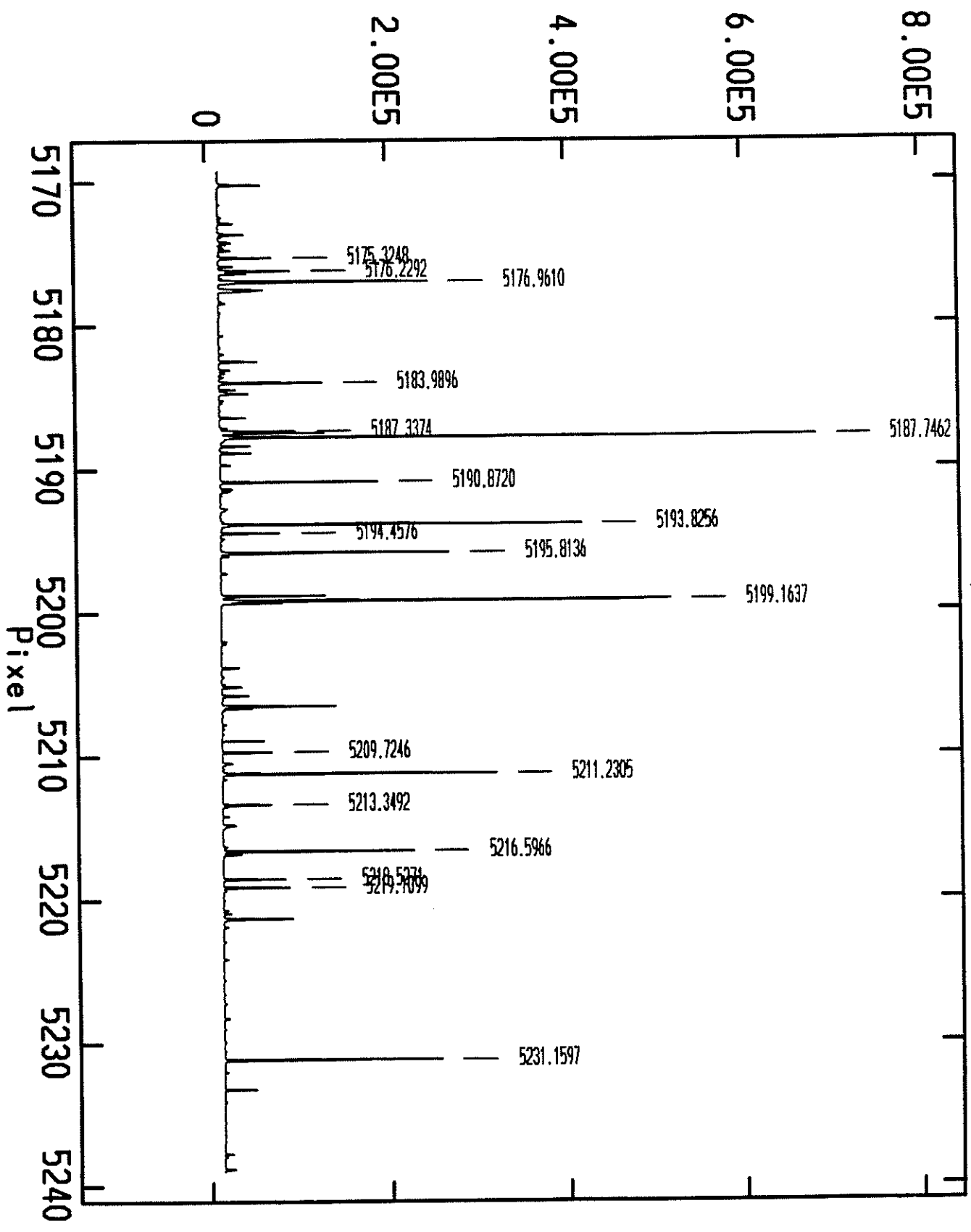
NOAO/IRAF V2.10EXPORT mk_euobra. SSC.EDU Mon 16:23:29 13-Sep-93
Aperture 6 Image 118 6 Order 69
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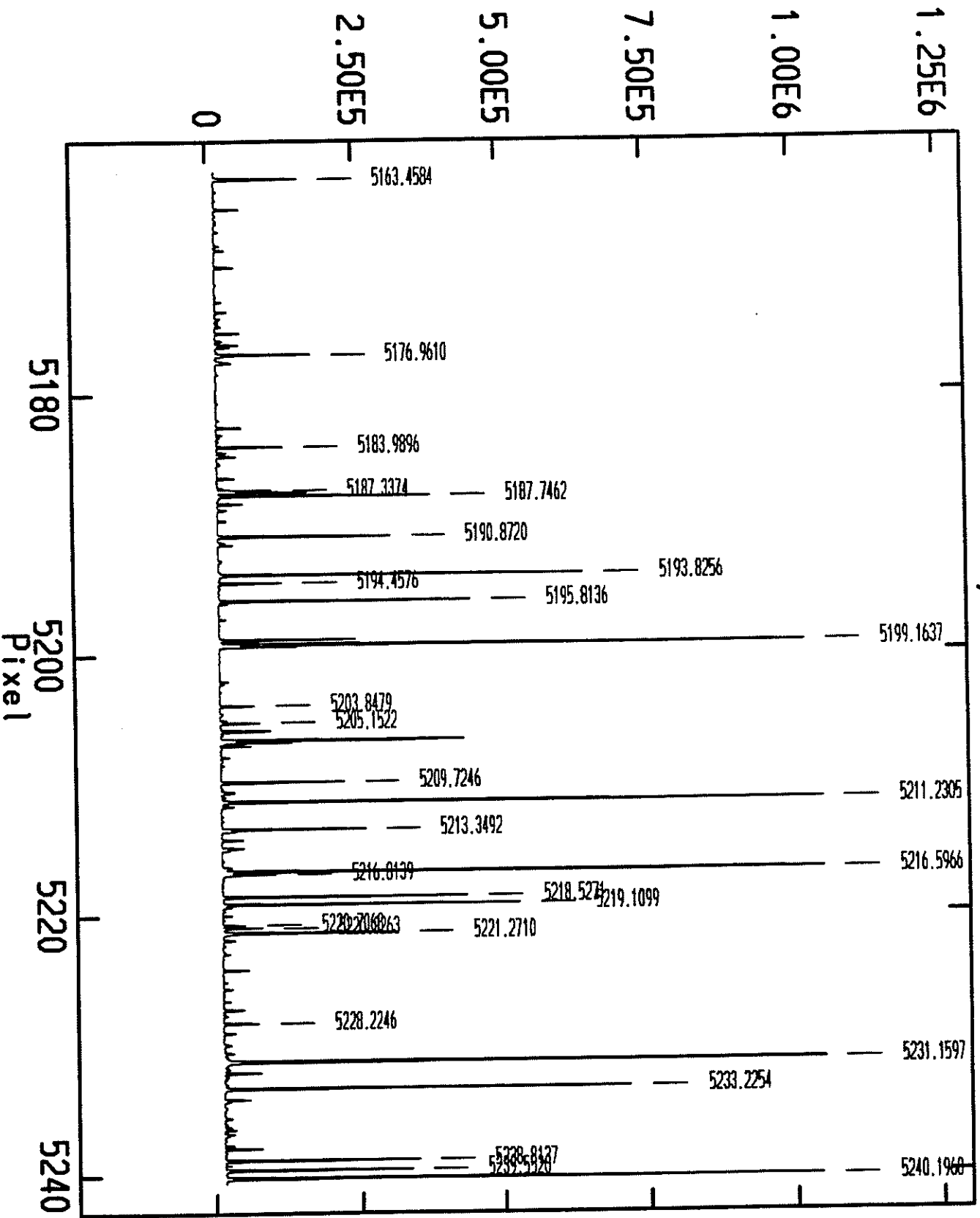


NOAO/IRAF V2.10EXPORT mk_eu_bra.ucsc.edu Mn 15:27:43 13-Sep-93
 Aperture 34 Image file 34 Order 69
 Identify data 0264.ec: hor

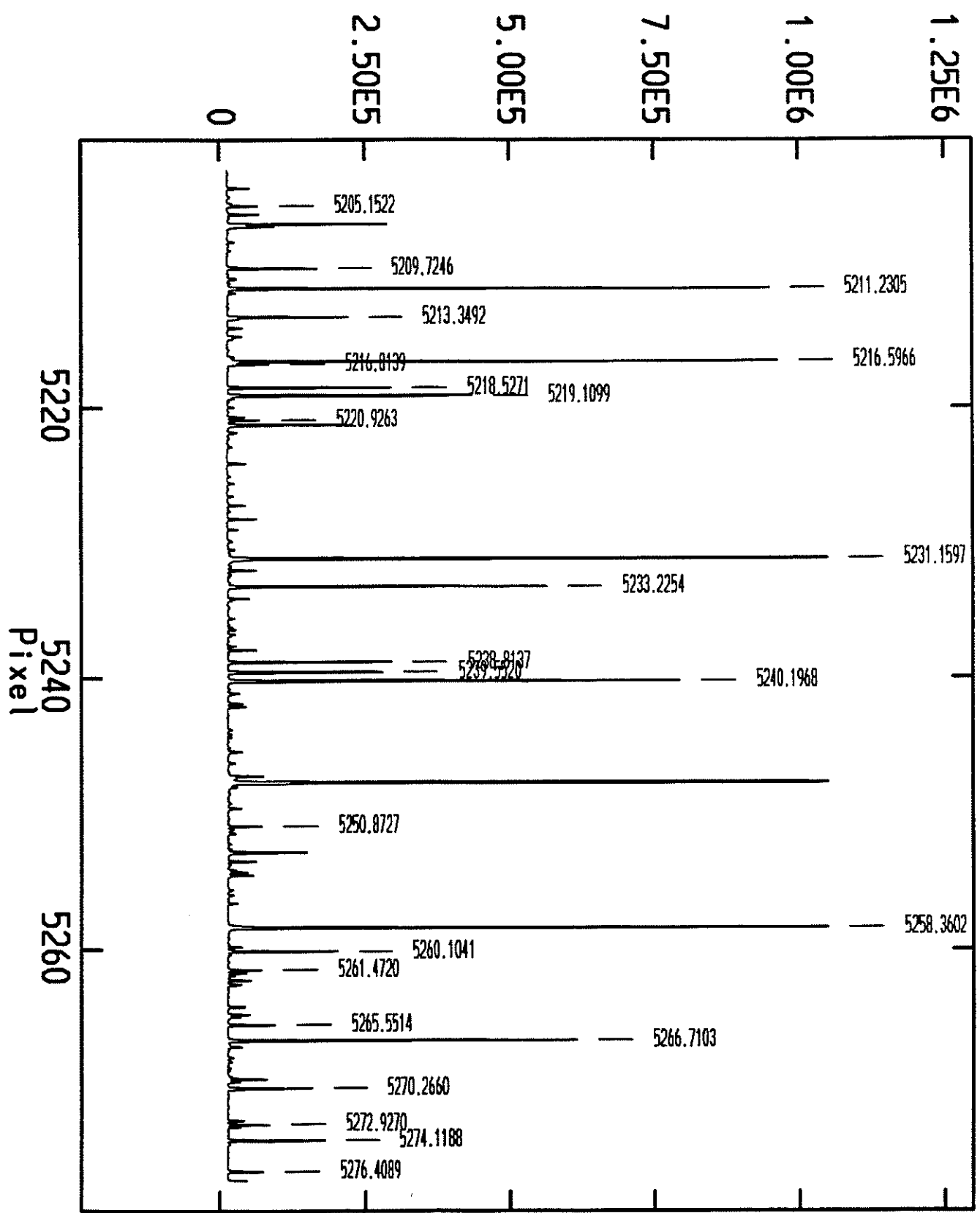


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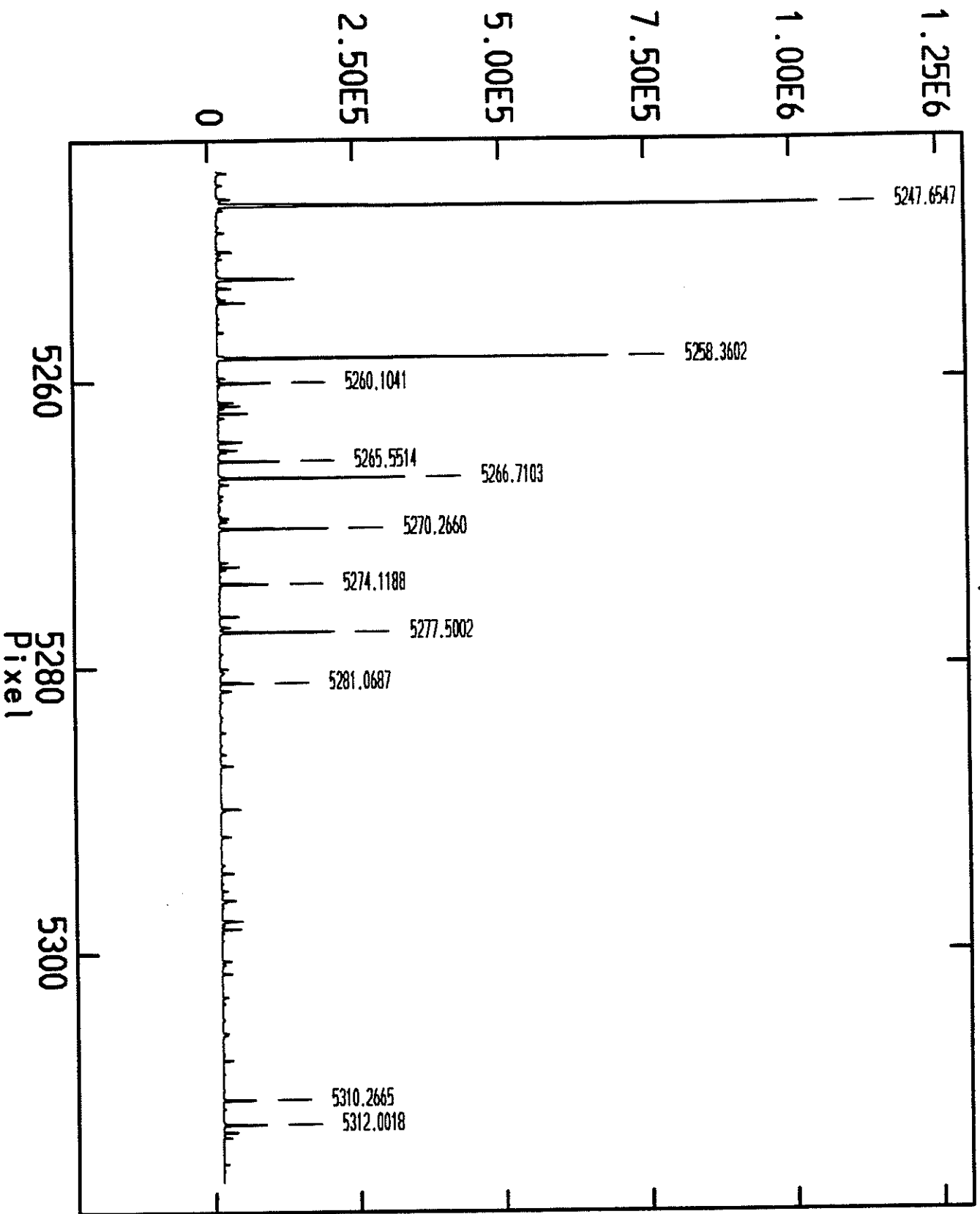




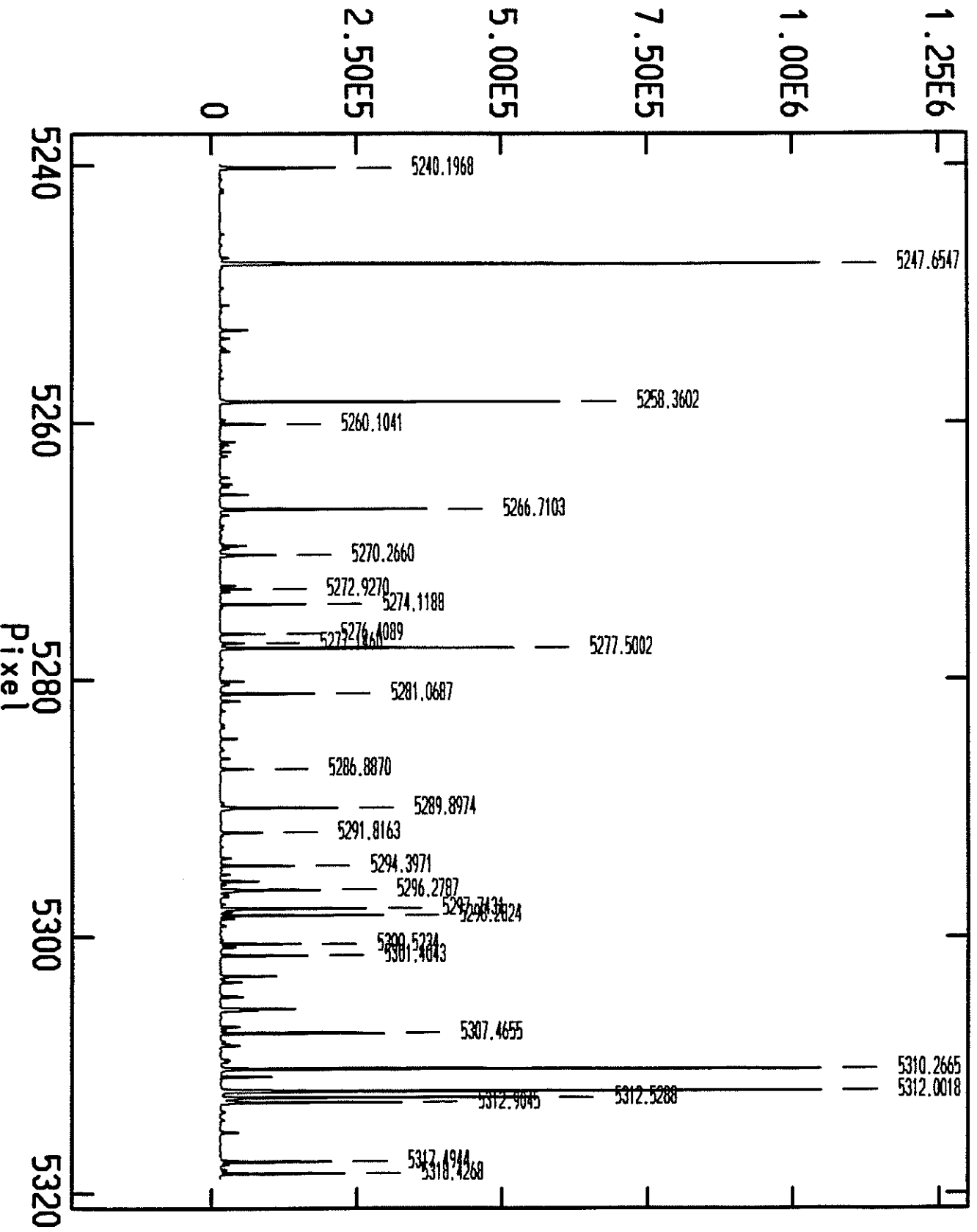
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 Aperture 35, Image 1, File 35, Order 68
 Identify data 0264.ec: hor



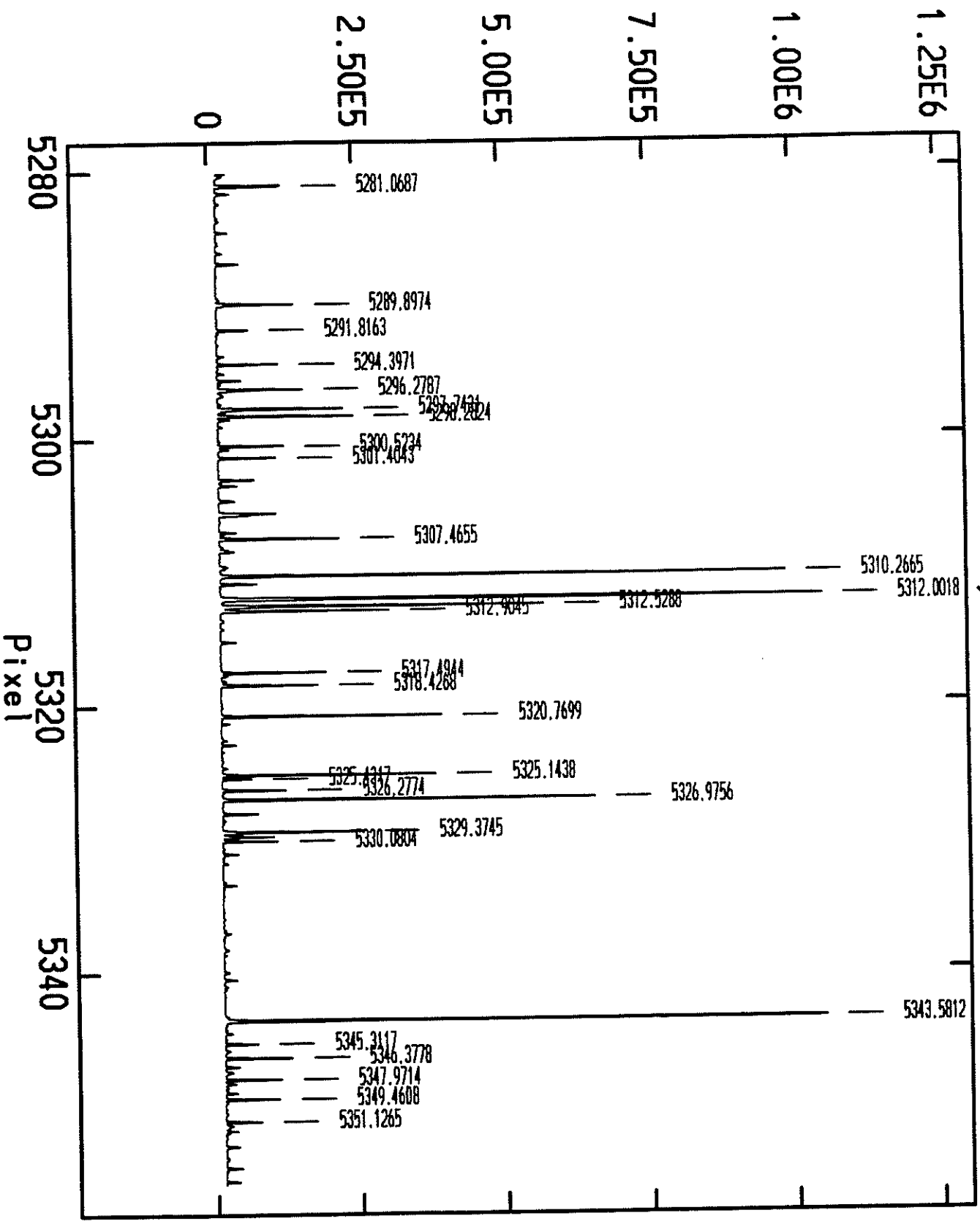
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Aperture 8, Image Line 8, Order 68
identify data0271.ec: hor

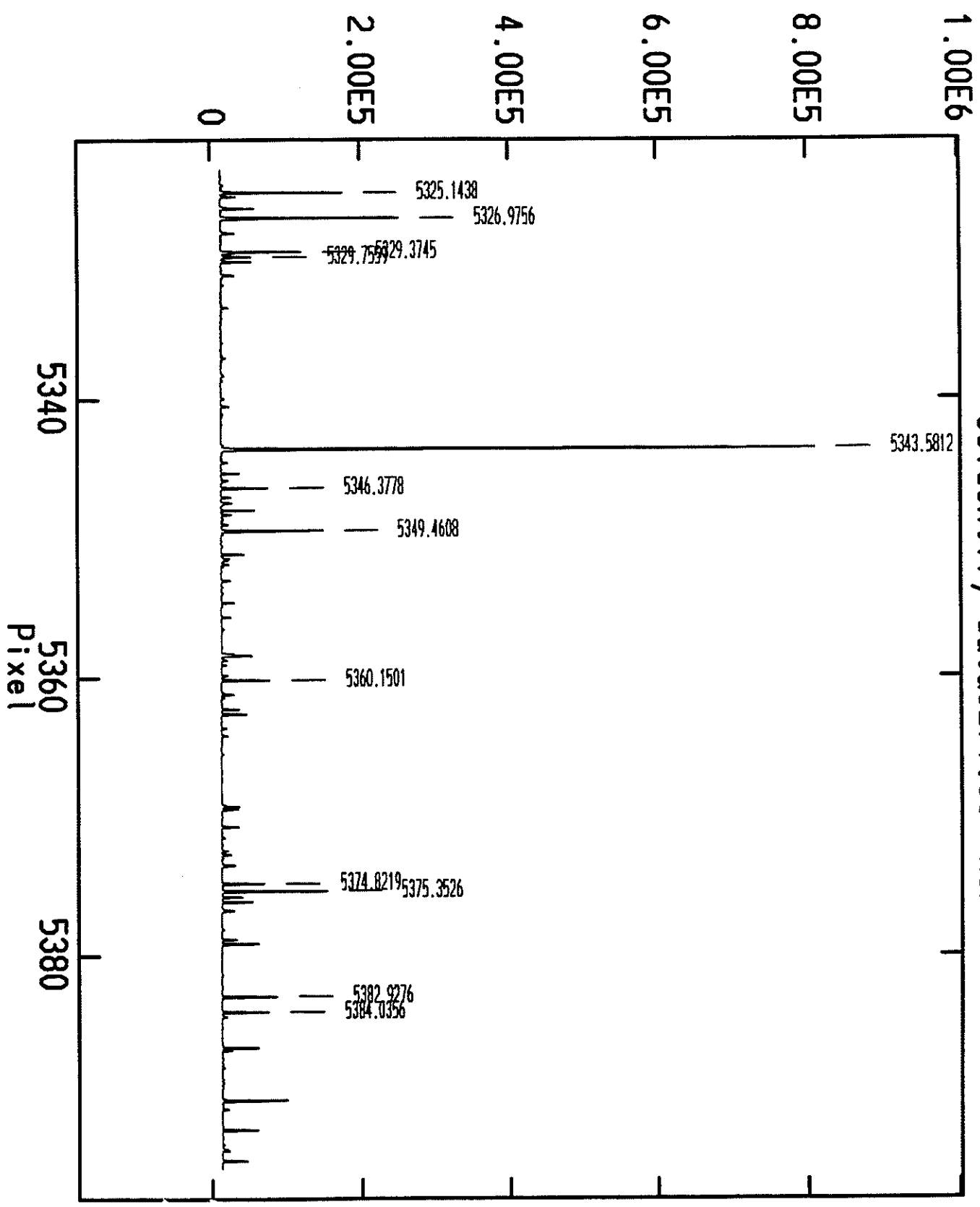


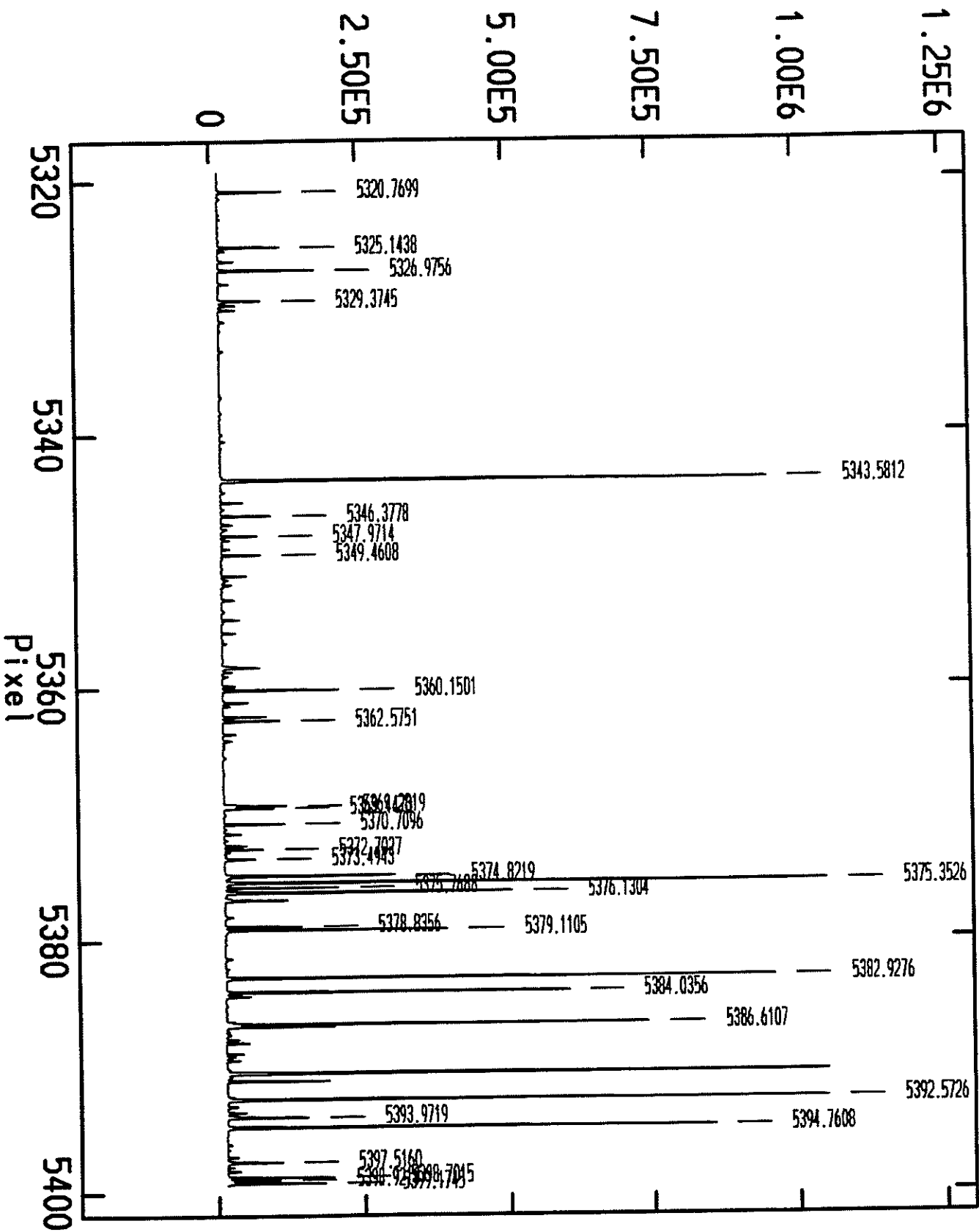
NOAO/IRAF V2.10EXPORT mk@umbra.rsc.edu Mon 16:23:39 13-Sep-93
Aperture 8 Image File 8 Order 67
incident: data0272.ec: hor



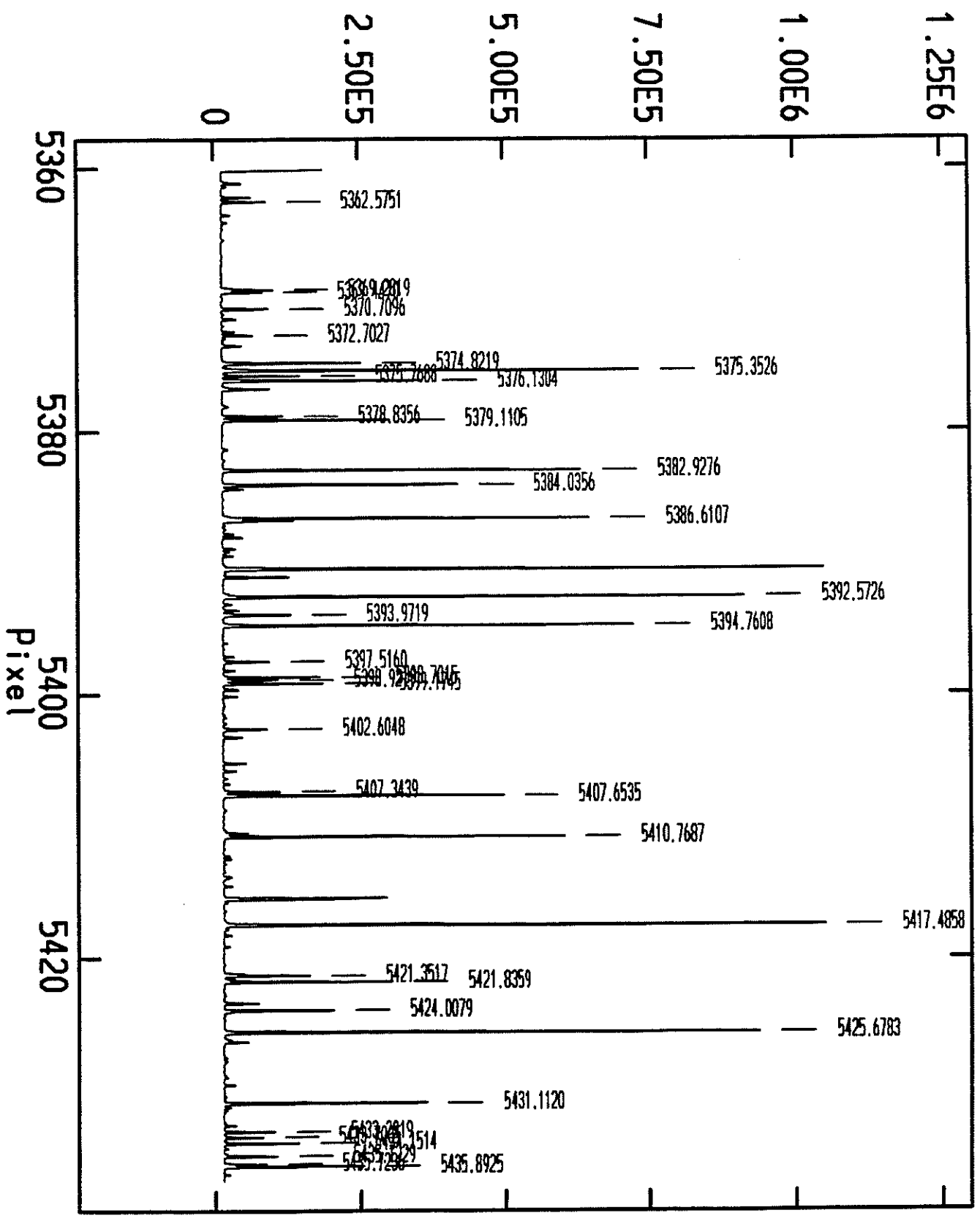
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 15:27:53 13-Sep-93
 Aperture 36, Image Line 36, Order 67
 identify data0264.ec: hor



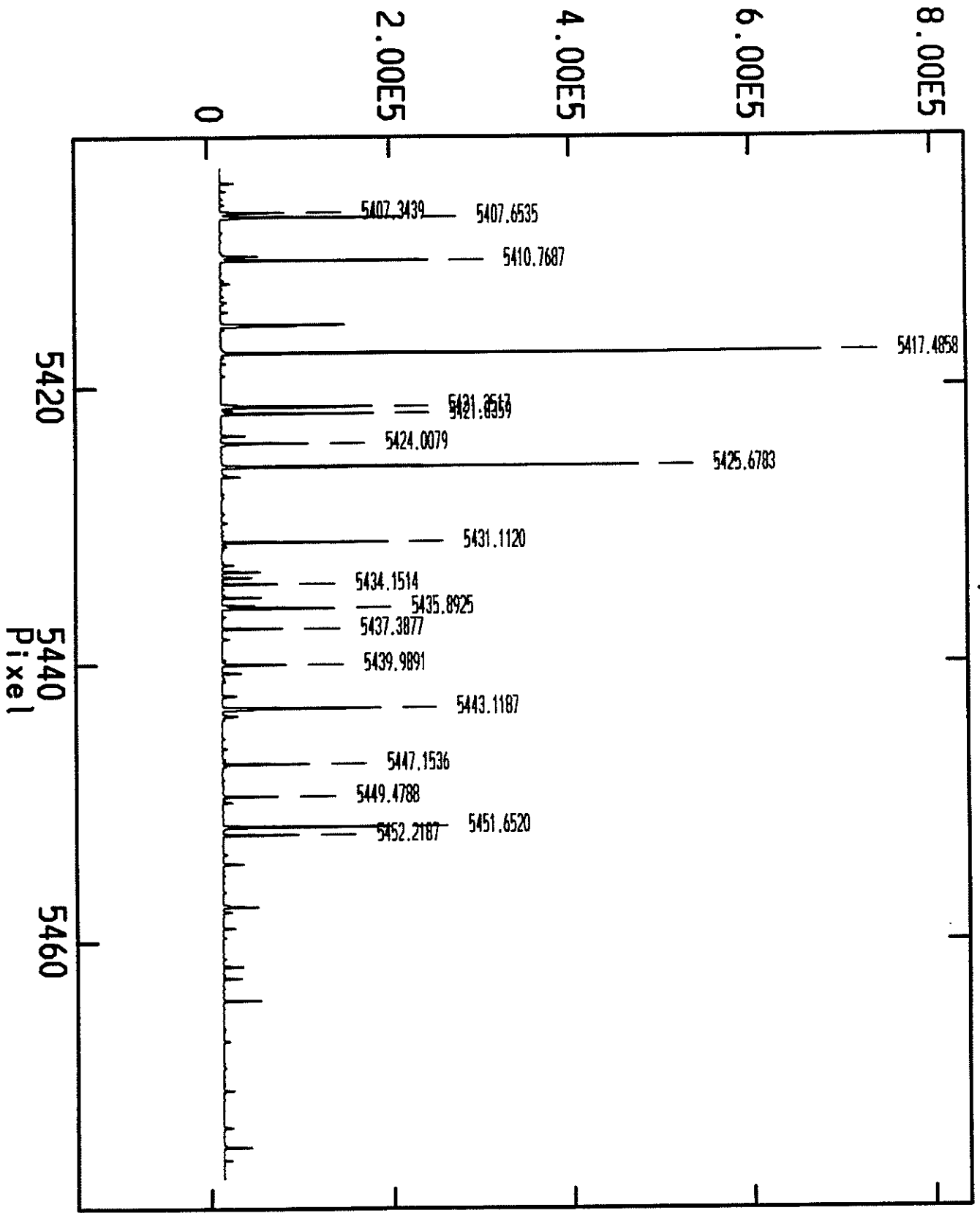




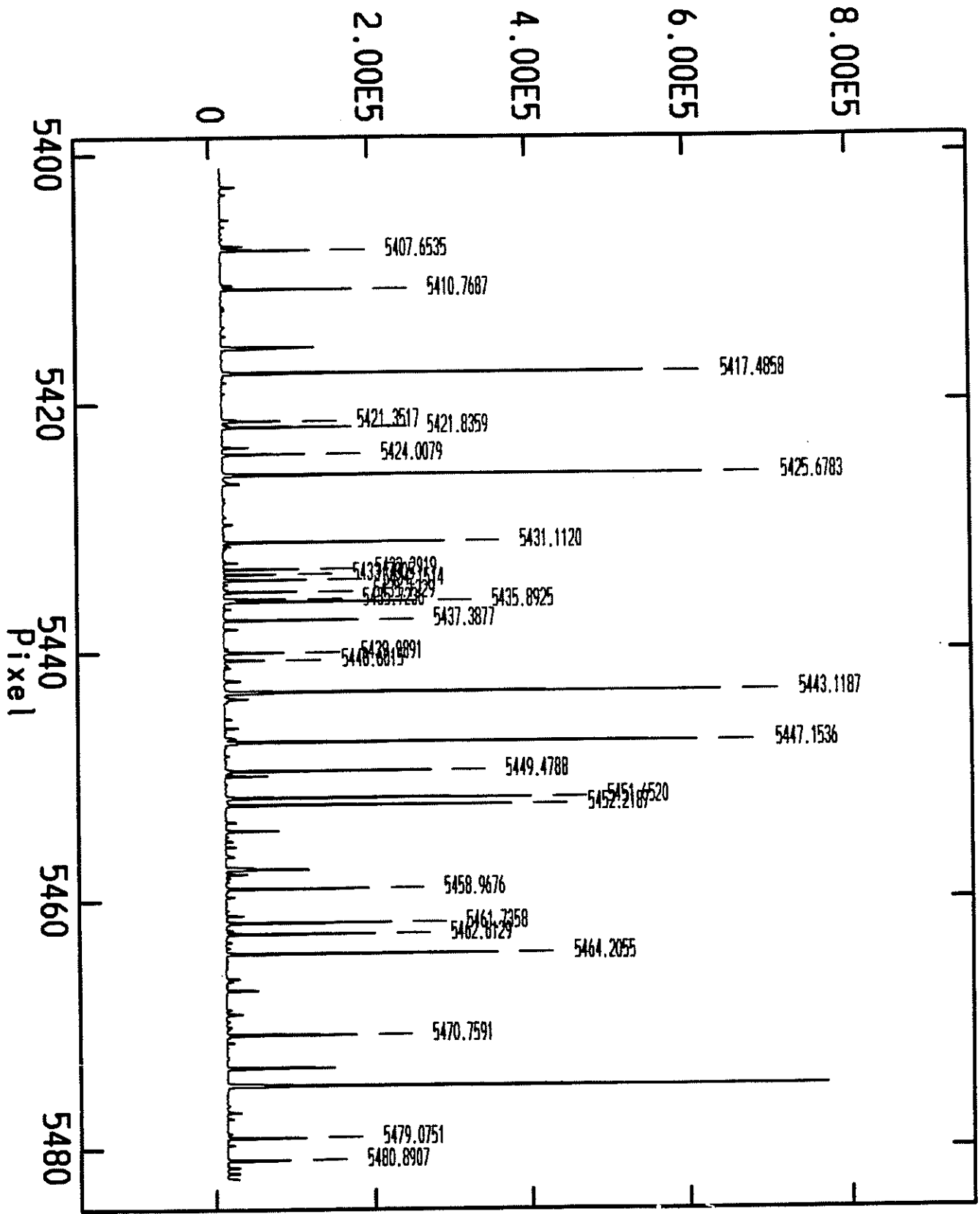
IRAF V2.10EXPORT
 Aperture: 37
 Image: 102
 Order: 66
 File: data0284.ec
 Order: 15
 Date: 27:59 13-Sep-93



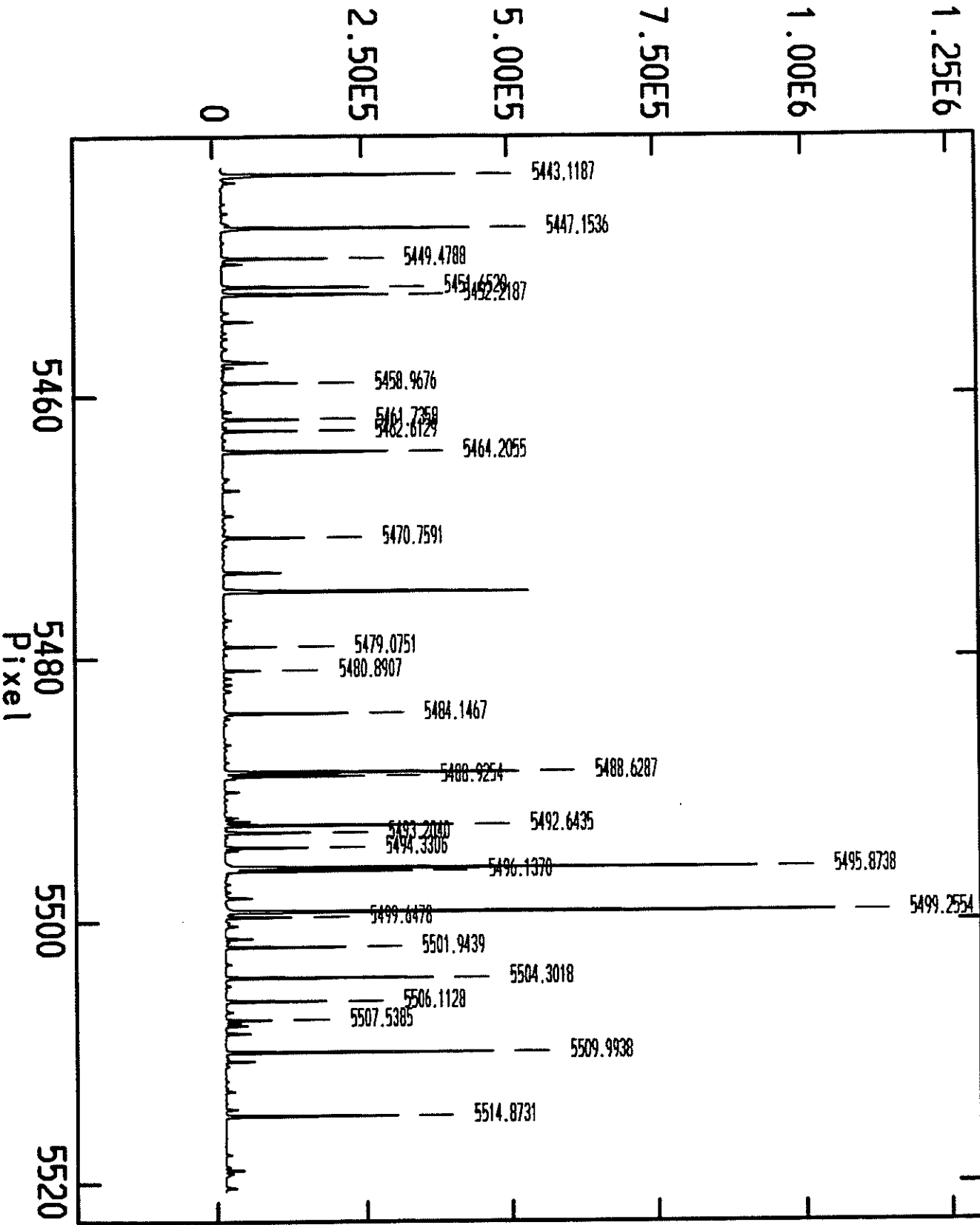
NOAO/IRAF V2.10EXPORT pk@umbra.ucsc.edu Mn 16:19:34 13-Sep-93
Aperture 10, Image file 10, Order 66
identify data0271.ec: hor



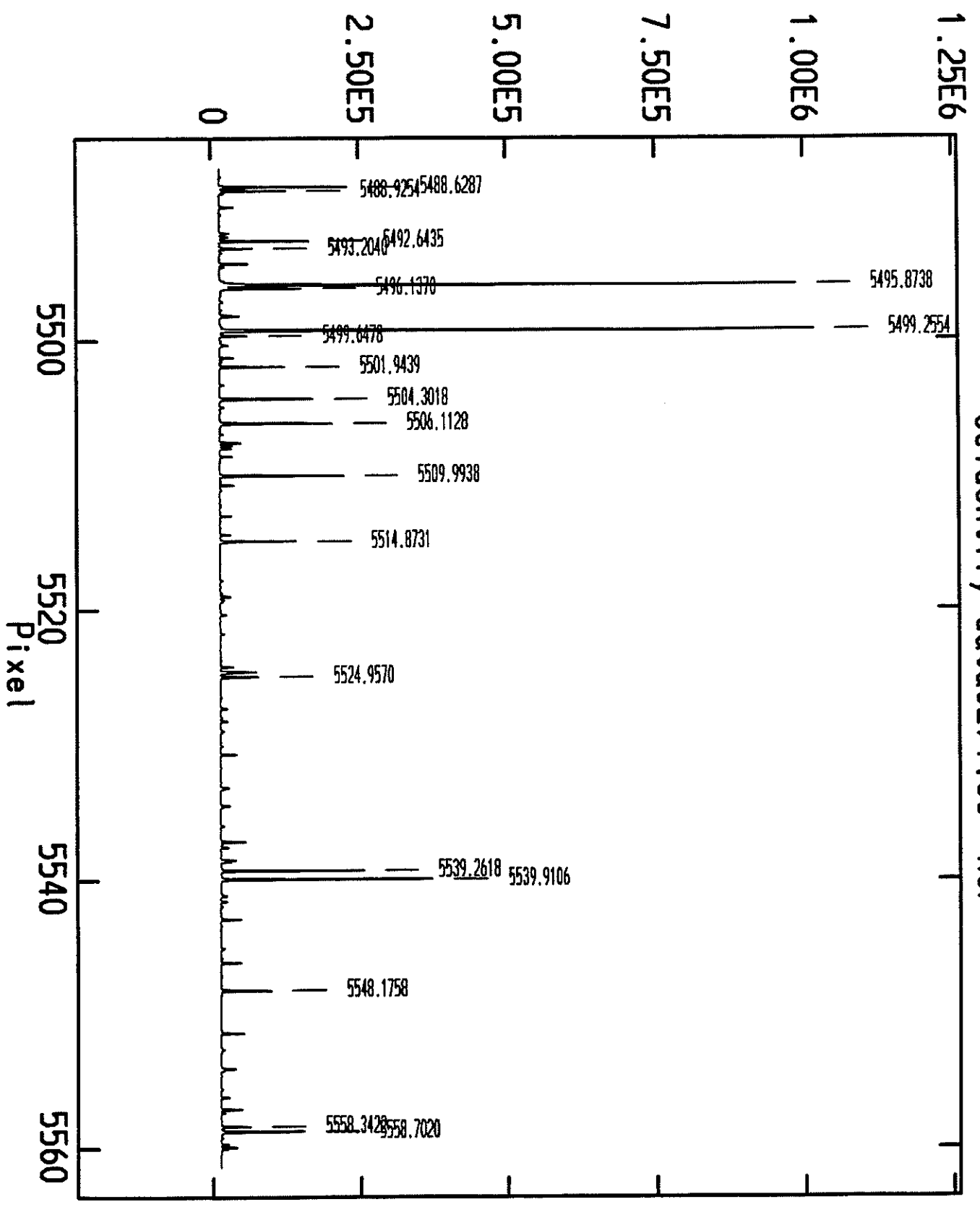
NOAO/IRAF V2.10EXPORT mkumbra... SSC.EDU Mon 16:23:47 13-Sep-93
 Aperture 10 Image File 10 Order 65
 Identify data 0272.ec: hor

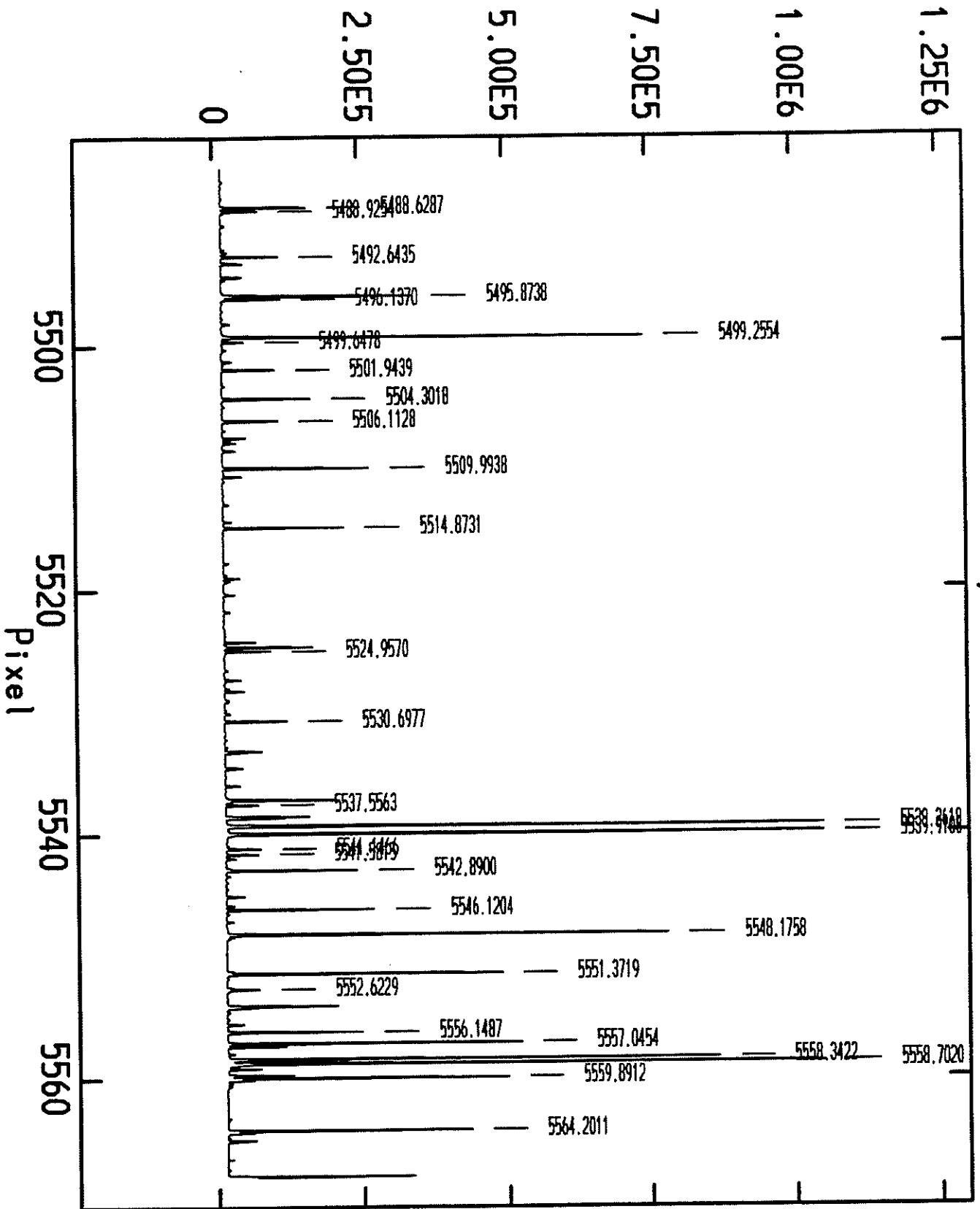


NOAO/IRAF V2.10EXPORT mk@umbra.UCSC.EDU Mon 15:28:04 13-Sep-93
 Aperture 38, Image file 0284.ec: hor
 Identify data

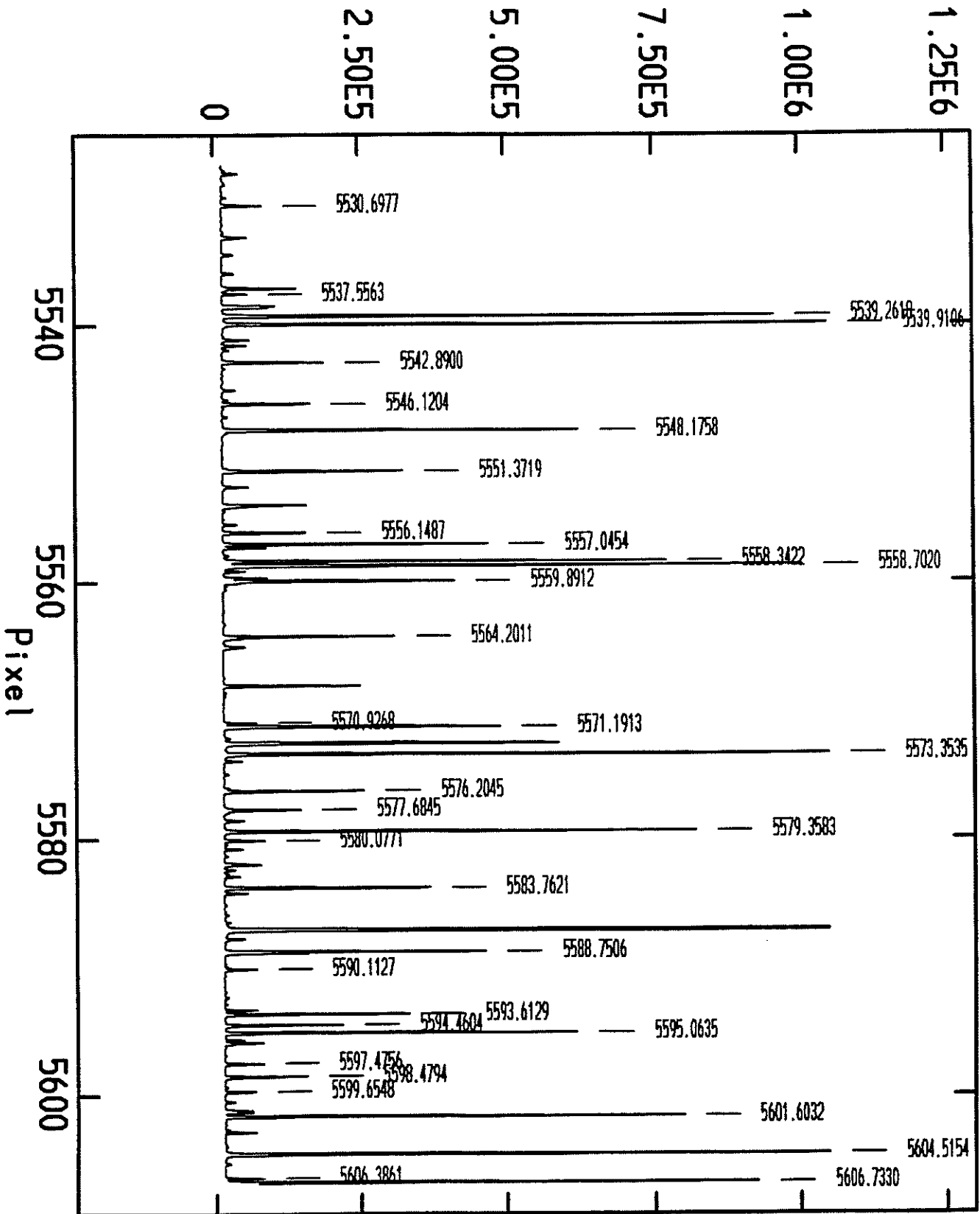


NOAO/IRAF V2.10EXPORT of umbra:1:SC:EPJ Mgn 16:19:39 13-Sep-93
Aperture Image in Order 65
Identify data 0271.ec: hor

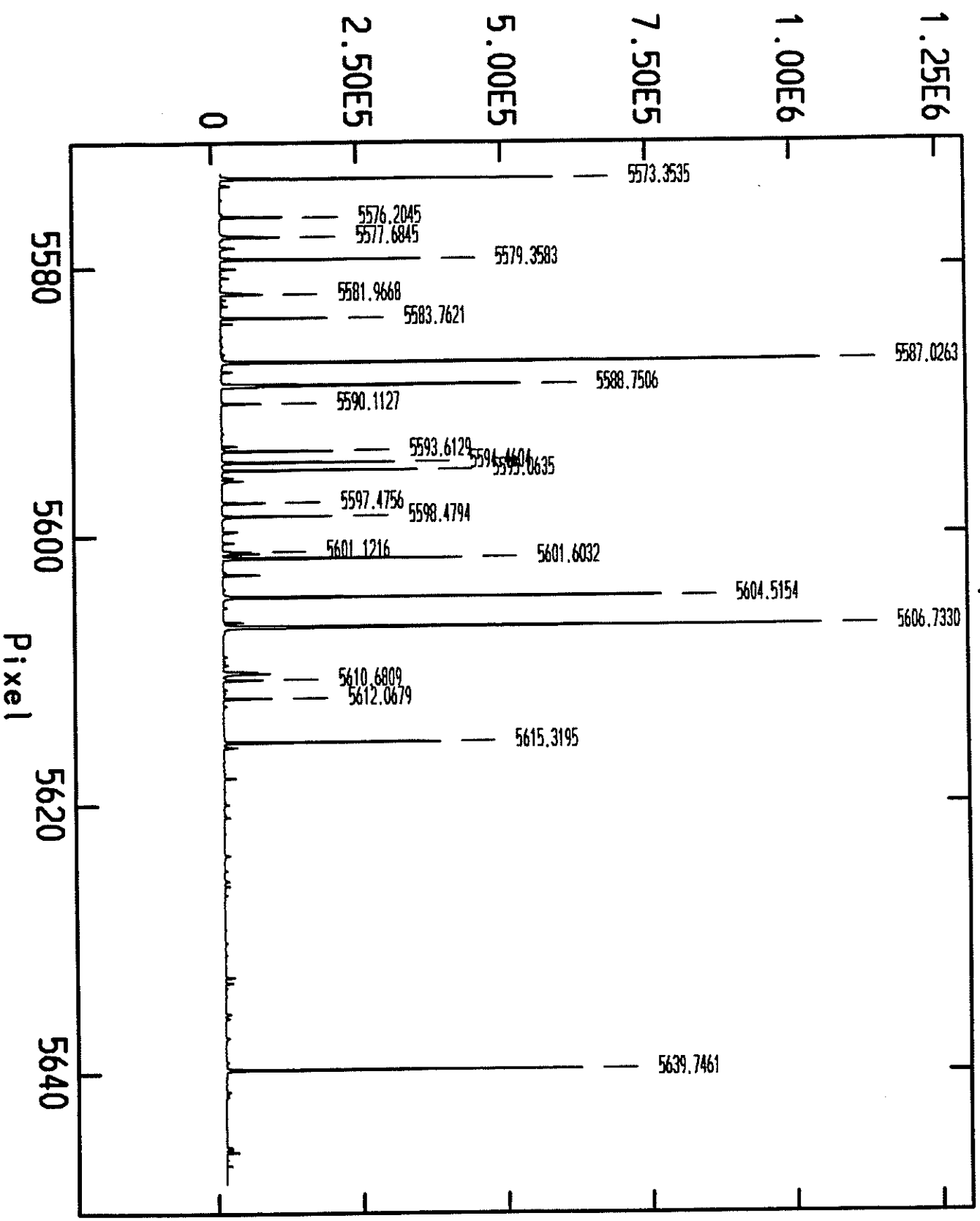




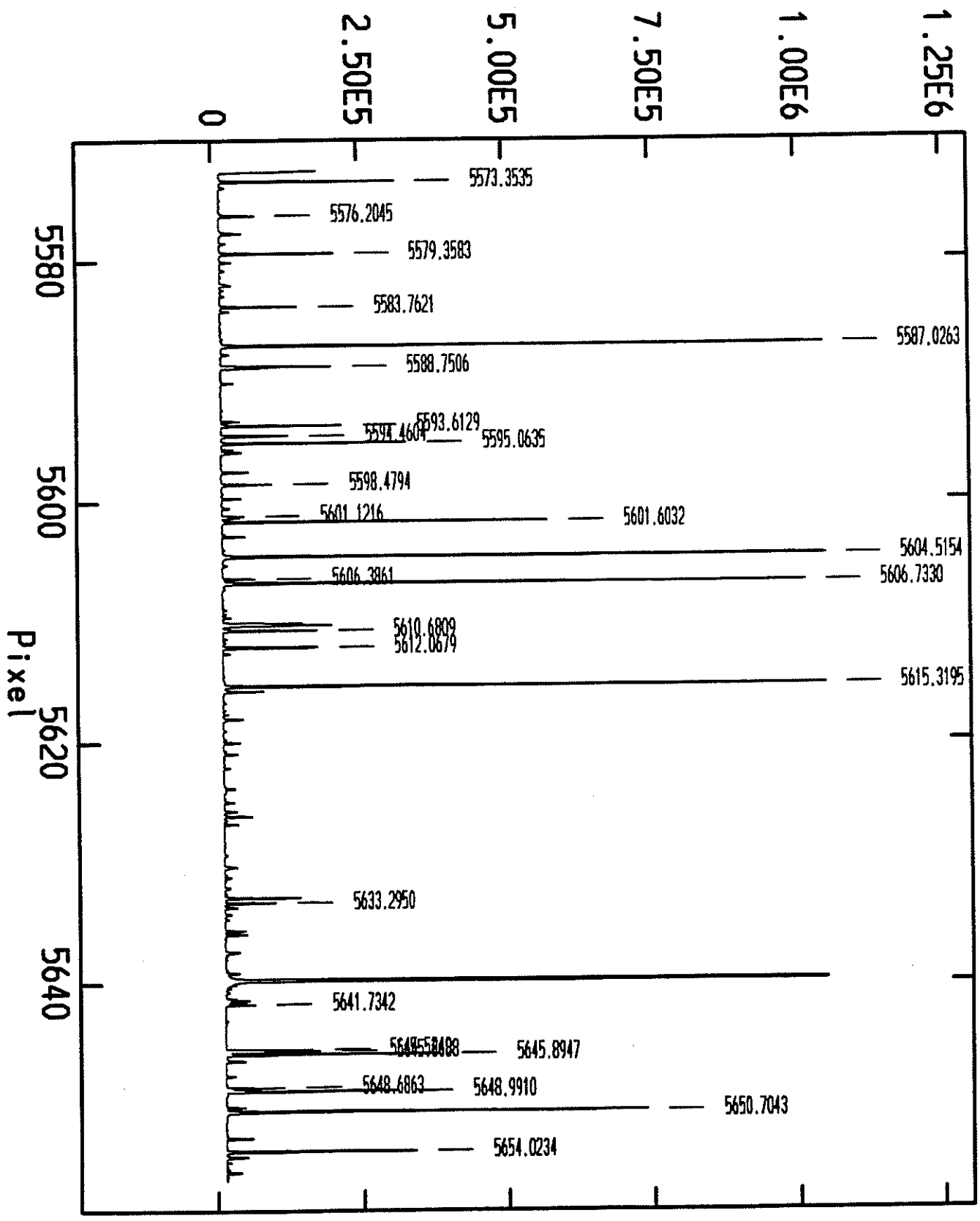
NOAO/IRAF V2.10EXPORT gk_euobra "CSC.EDU Mn 15:28:09 13-Sep-93
 Aperture 39 Image Line 39 Order 64
 Identify data 0264.ec; hor



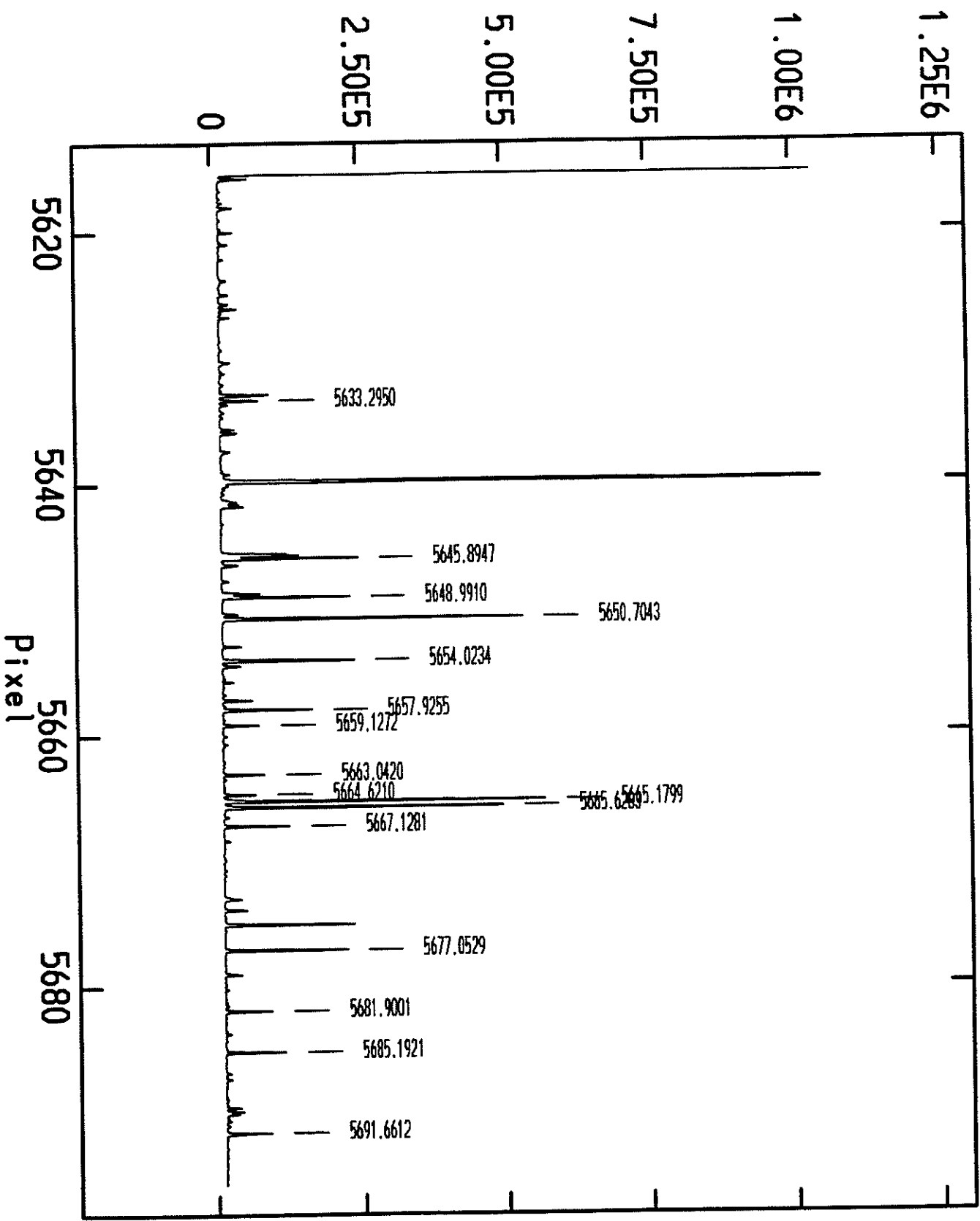
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:19:43 13-Sep-93
Aperture 12 Image Size 12 Order 64
Identify data 0271.ec: hor



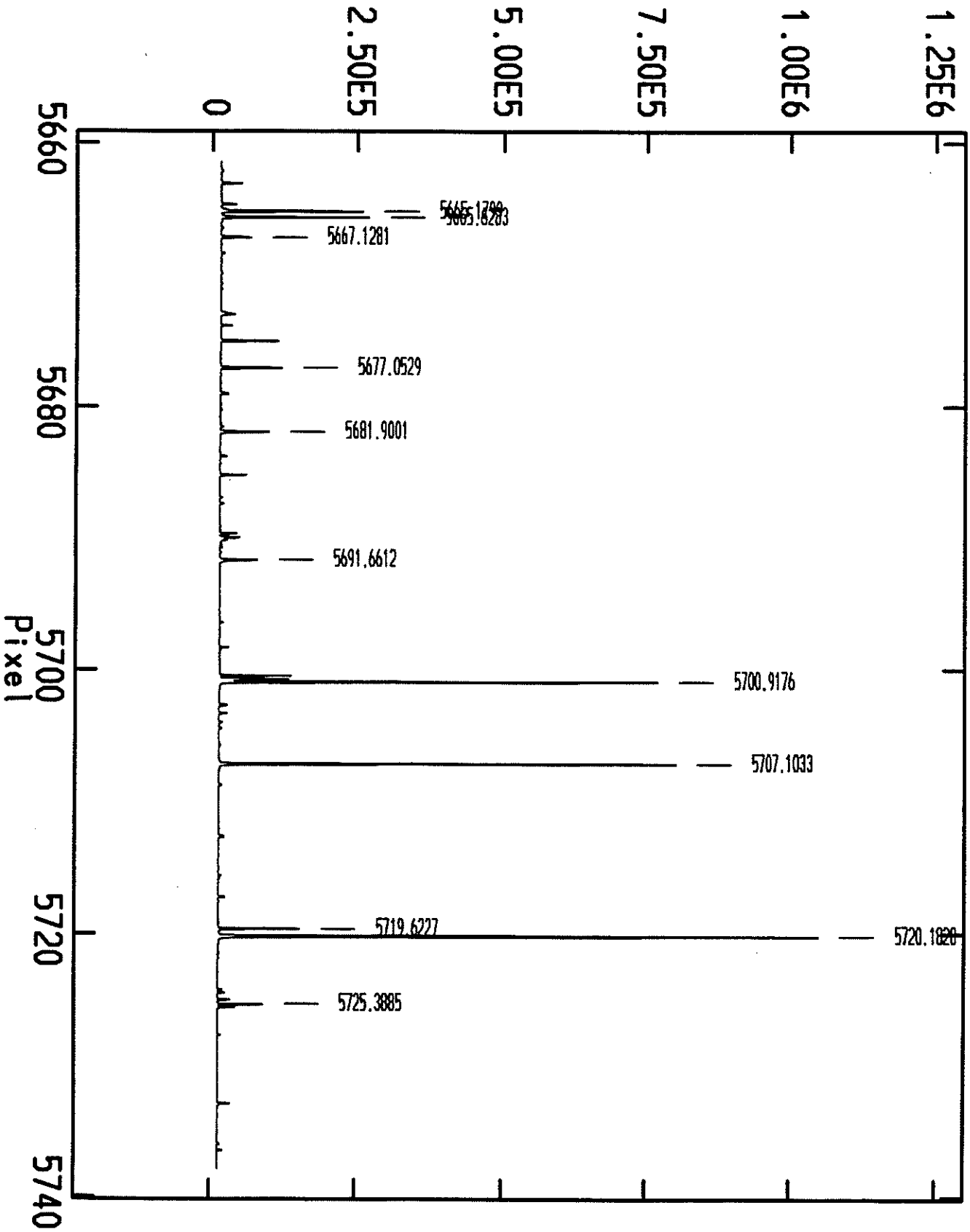
NOAO/IRAF V2.10EXPORT mk@umbra 'CSC.EPU Mn 16:23:56 13-Sep-93
 Aperture 12.5 mag 12.0 Order 63
 Identify data 0272.ec: hor



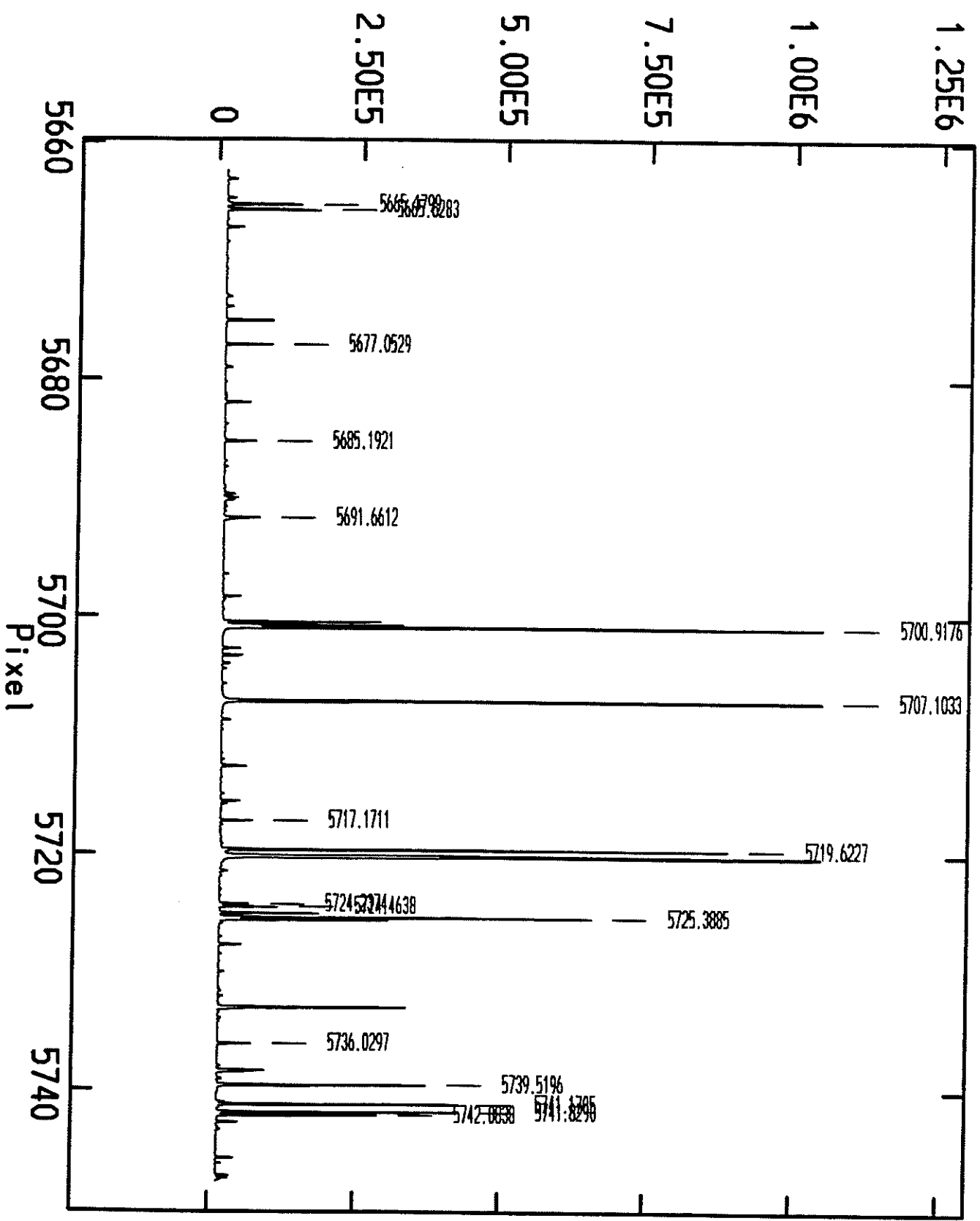
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mn 15:28:13 13-Sep-93
 Aperture 40, Image Line 40, Order 63
 identify data0264.ec: hor



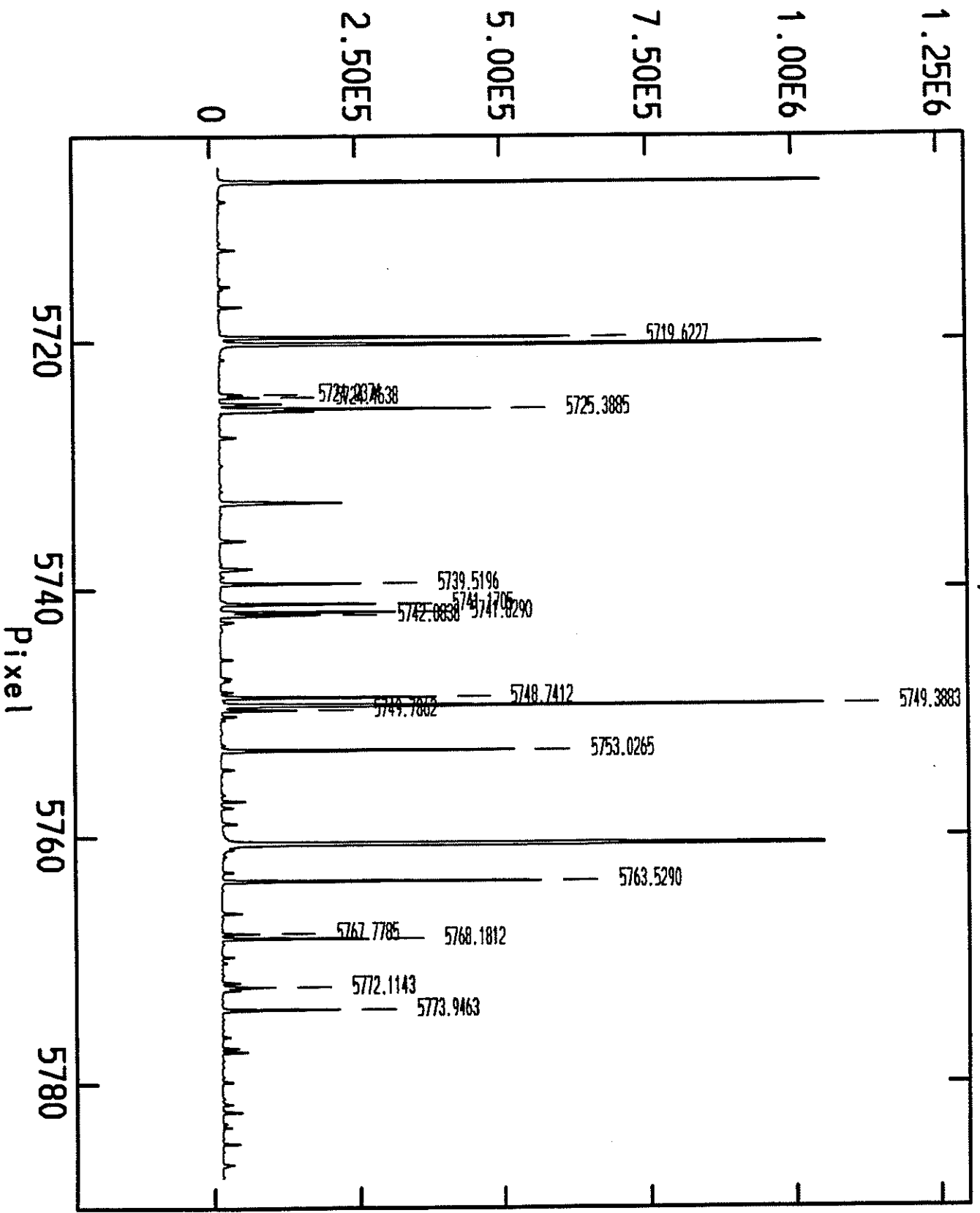
^QDAO/IRAF V2.10EXPORT pk@umbr.a.1^SC.EDU Mgn 16:19:48 13-Sep-93
Aperture 13 Image 'img13' Order 63
Identify data 0271.ec: hor



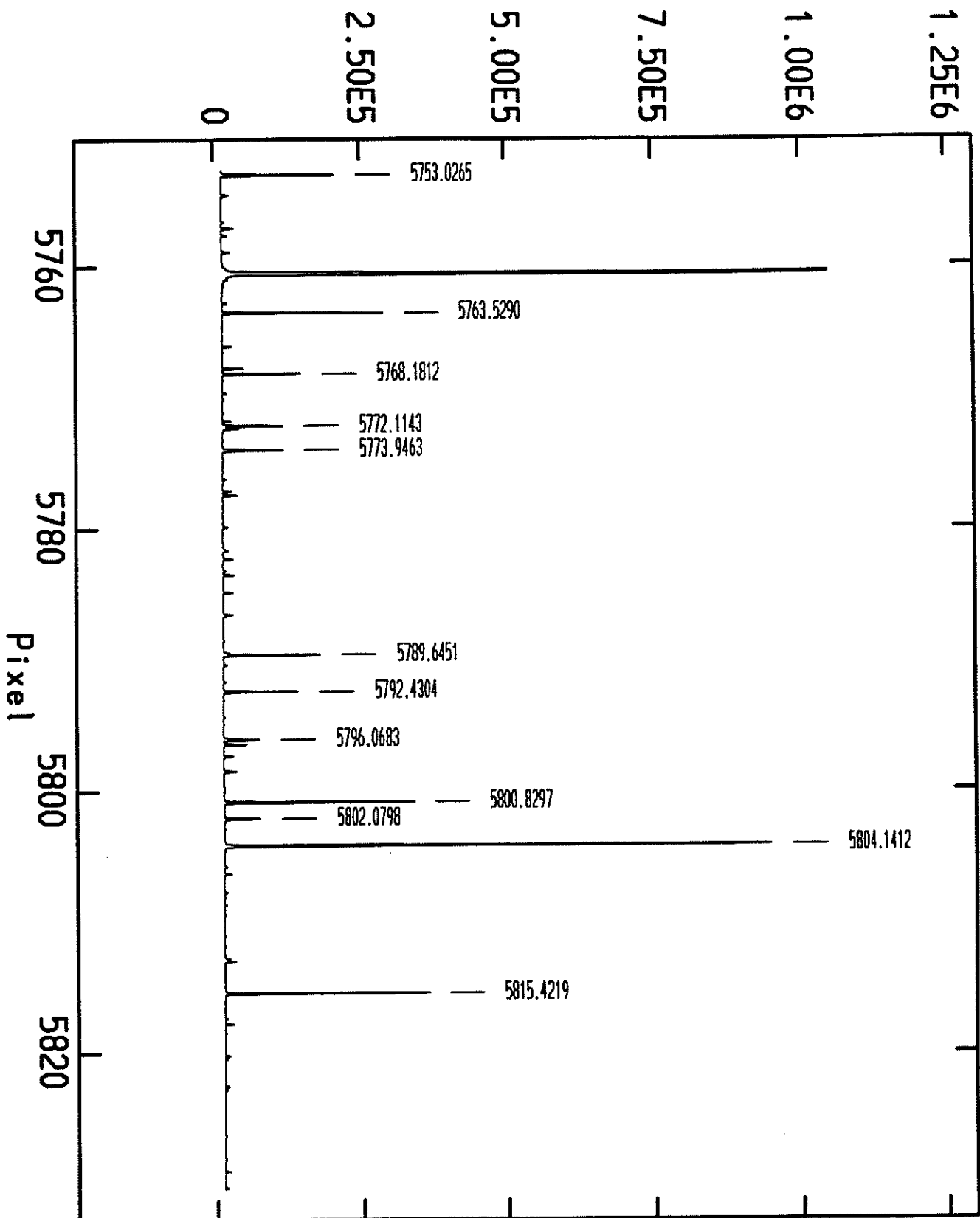
NOAO/IRAF V2.10EXPORT pk@umbra.ucsc.edu Mon 16:24:03 13-Sep-93
Aperture 13, Image Line 13, Order 62
identify data0272.ec: hor



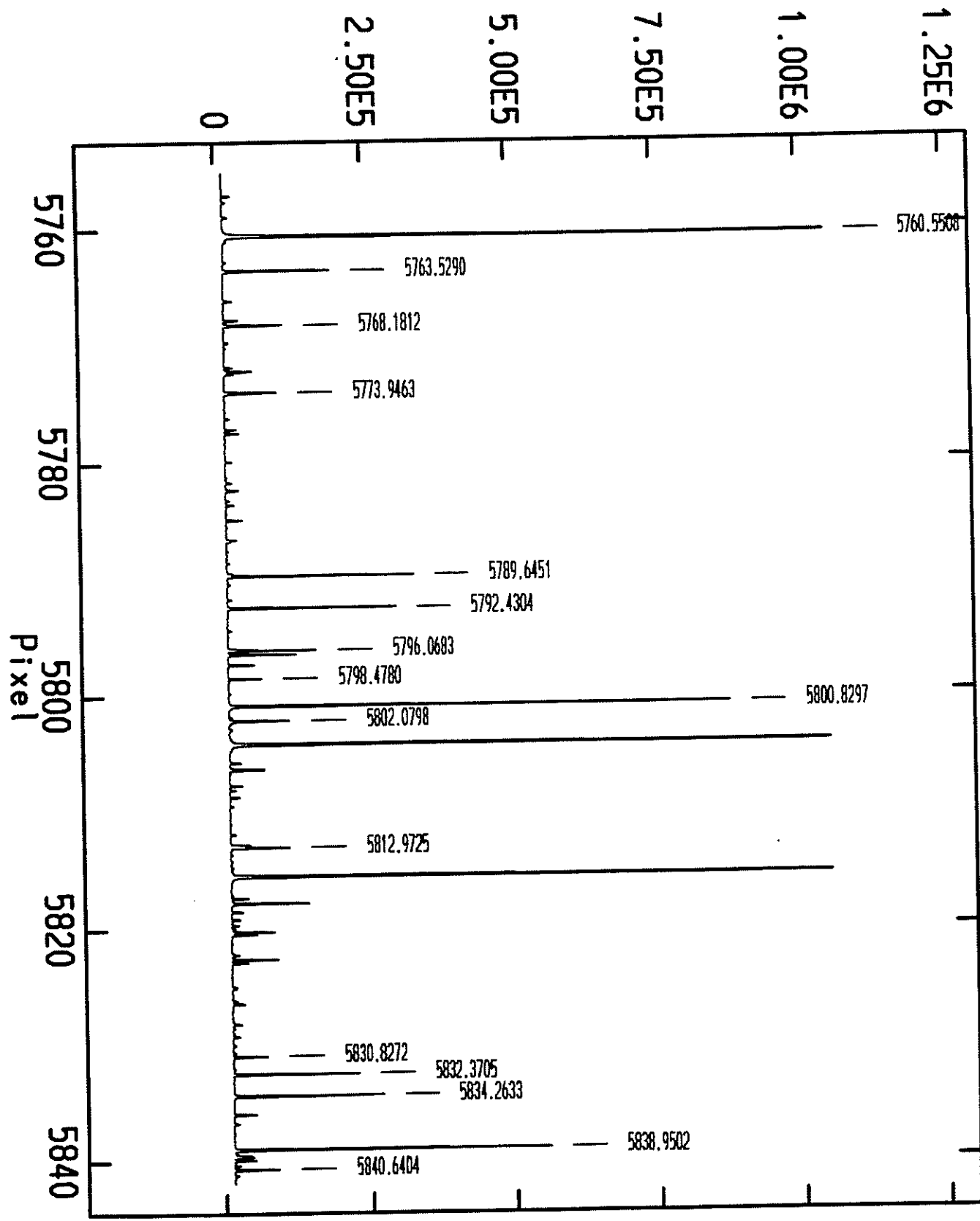
NRAO/IRAF V2.10EXPORT mk@uobra.UCC.EDU Mon 15:28:18 13-Sep-93
Aperture 41 Image 1 of 41 Order 62
identify data 0264.ec: hor



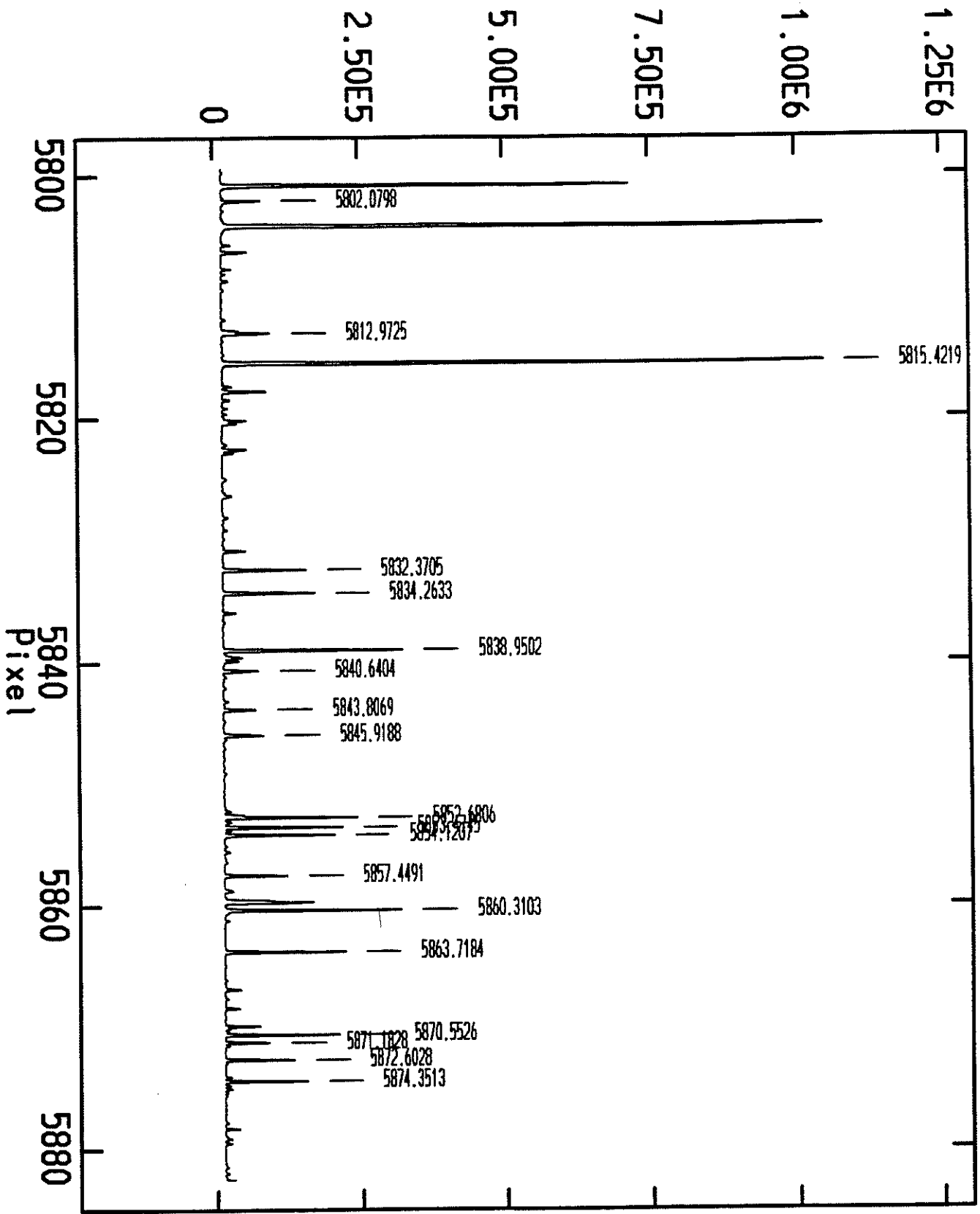
NOAO/IRAF V2.10EXPORT mk_eumbra.ucsc.edu Mon 16:19:52 13-Sep-93
Aperture 14, Image line 14, Order 62
identify data0271.ec: hor



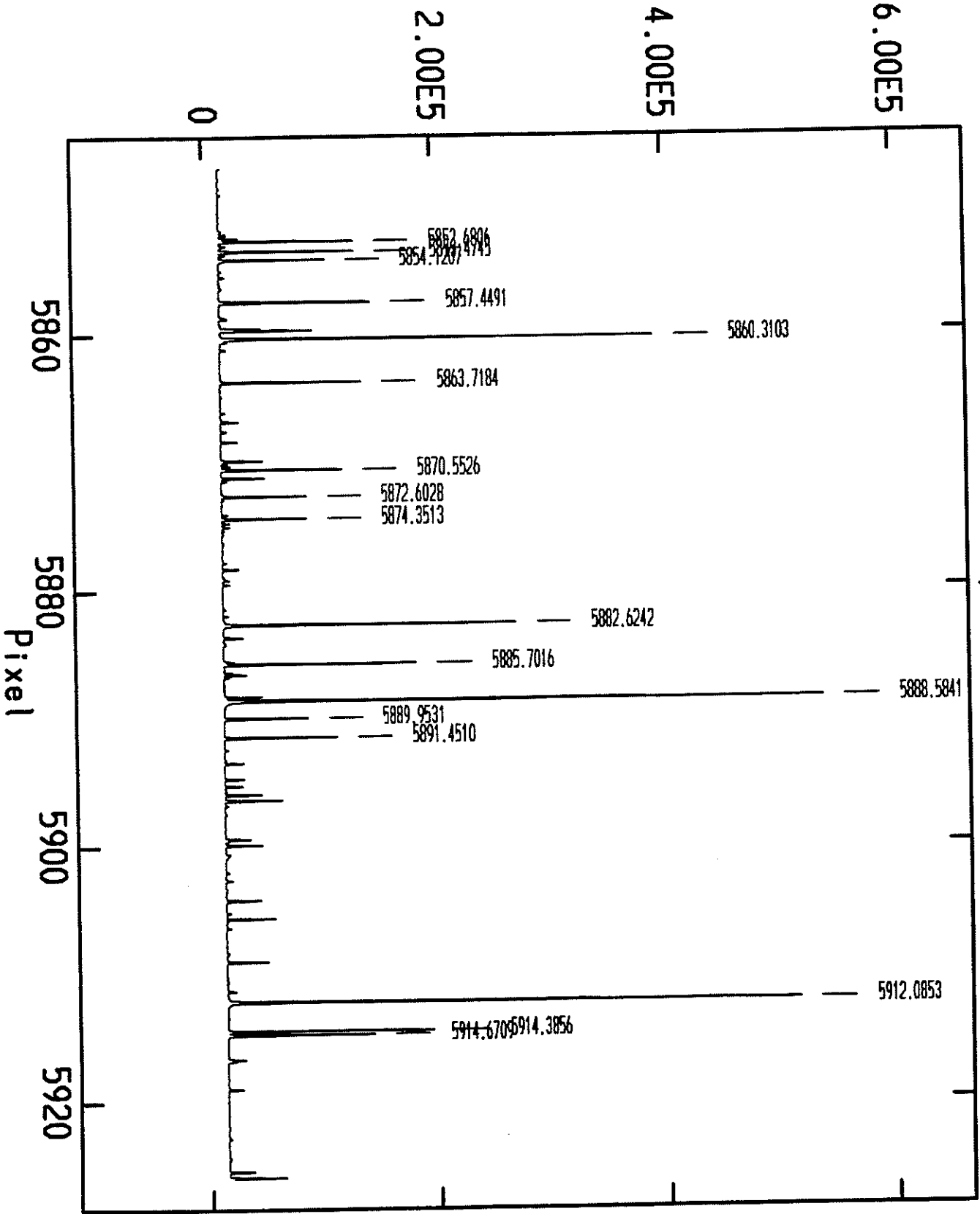
QAO/IRAF V2.10EXPORT pk@umbra.1~SC:EDU Mgn 16:24:07 13-Sep-93
Aperture 14 image 14 Order 61
identify data0272.ec: hor



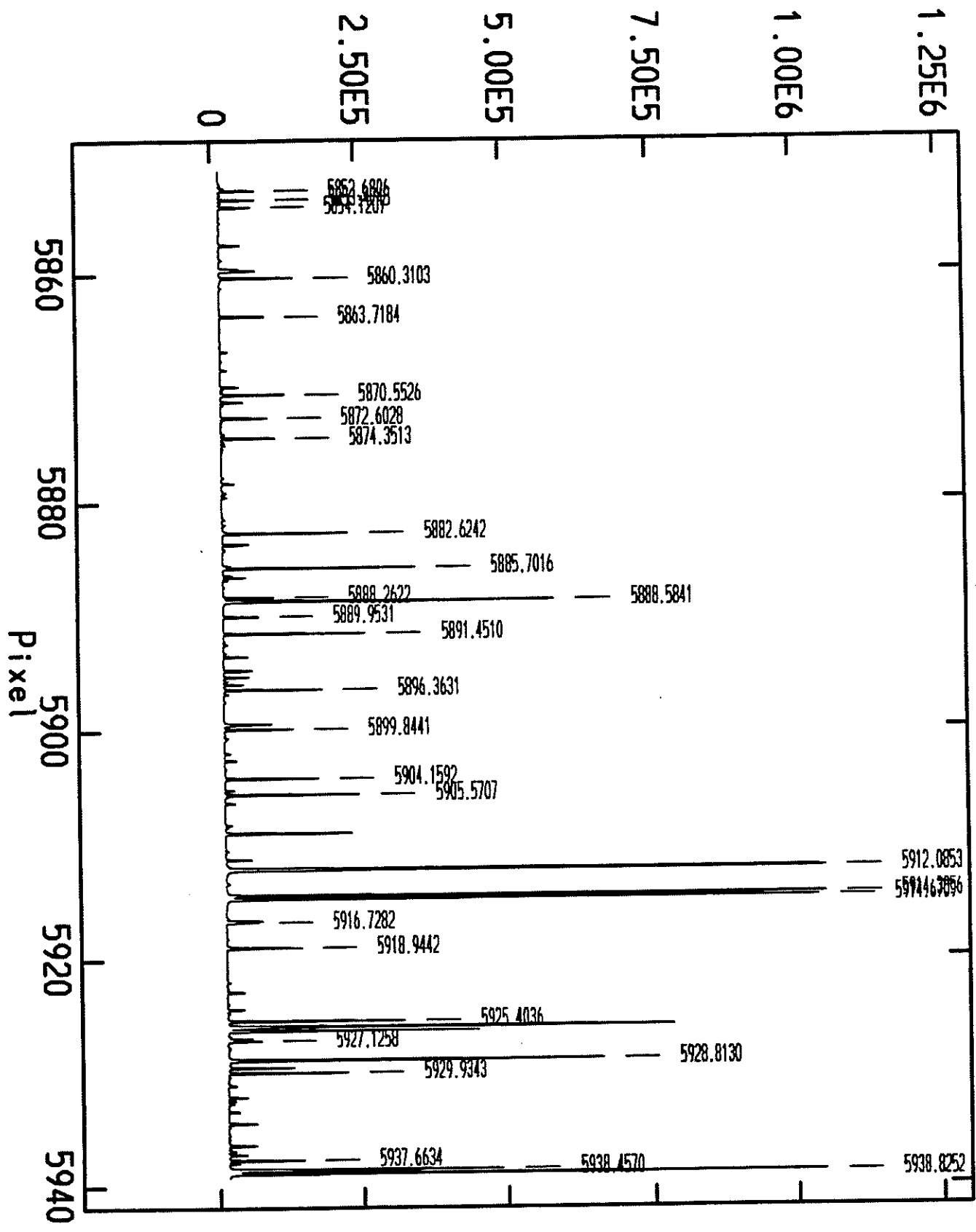
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 15:28:23 13-Sep-93
Aperture 42 Image file 42 Order 61
Identify data 0264.ec: hor



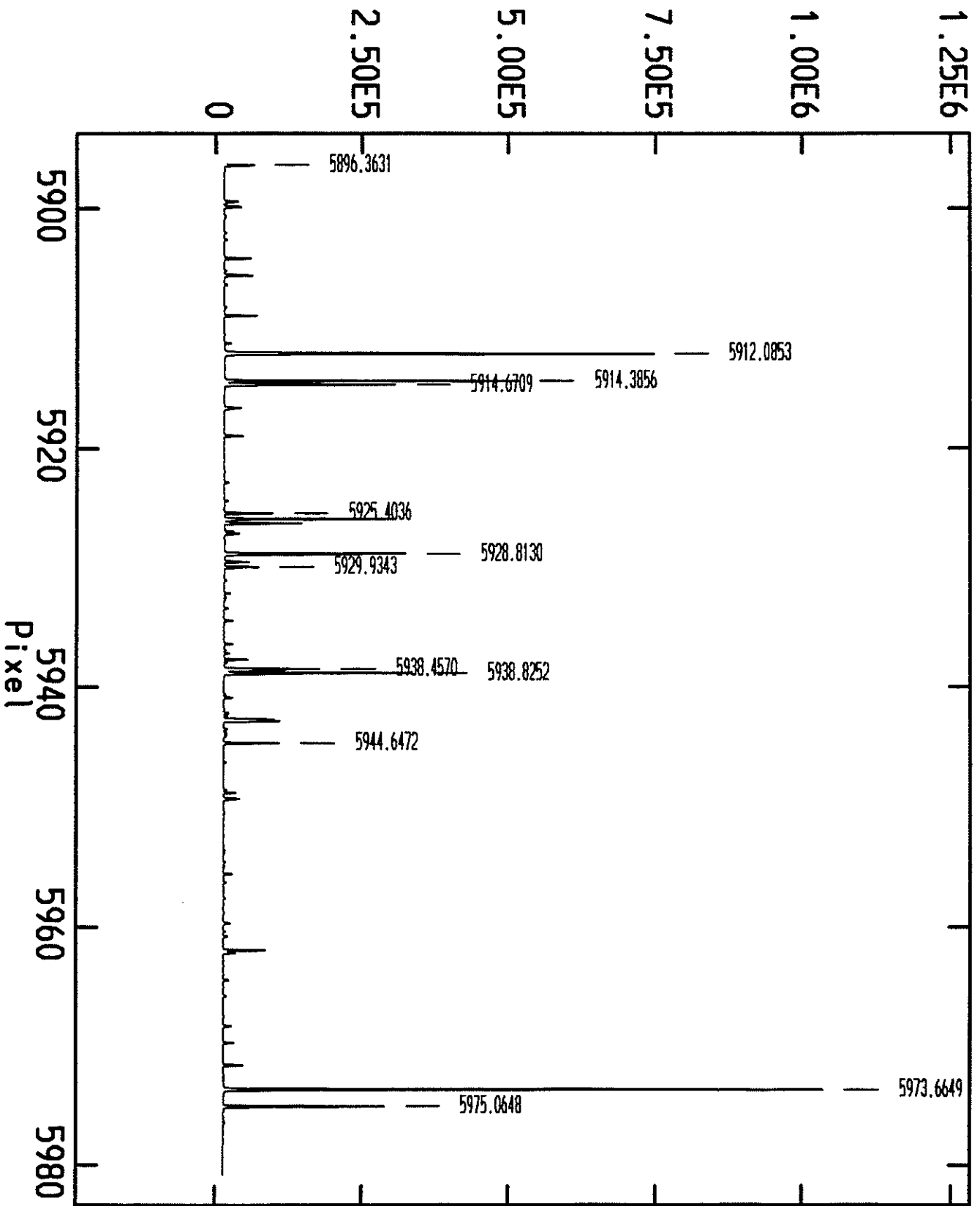
NOAO/IRAF V2.10EXPORT mk@umbra. ... SSC: EDU Mgn 16:19:57 13-Sep-93
Aperture 15 image (line 15, Order 61)
Identify data0271.ec: hor



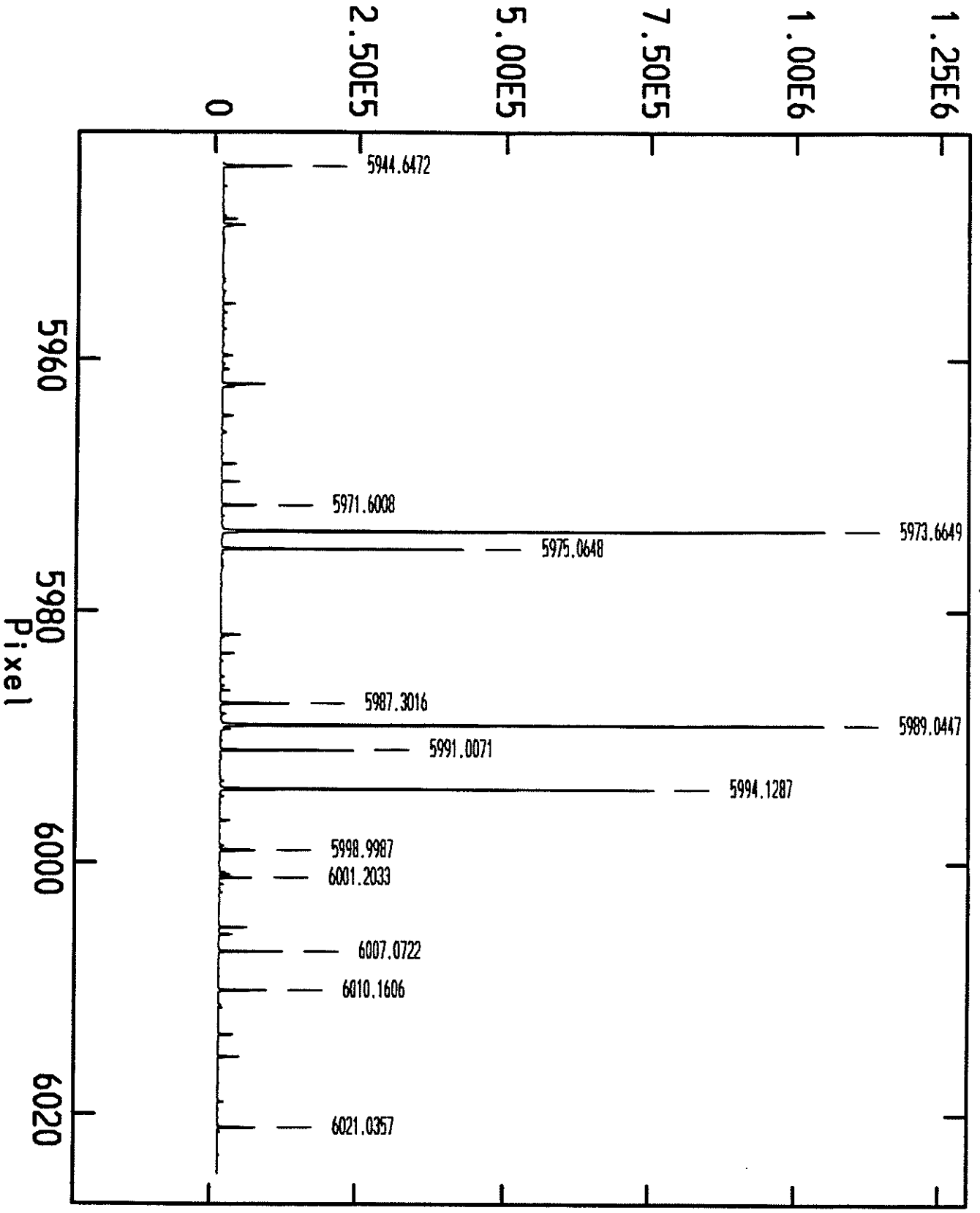
NOAO/IRAF V2.10EXPORT μ Cas image. UCSC. EDU Mon 16:24:11 13-Sep-93
 Aperture 15. Image file 1098. Order 16:24:11 13-Sep-93
 Identify data 0272.ec: hor



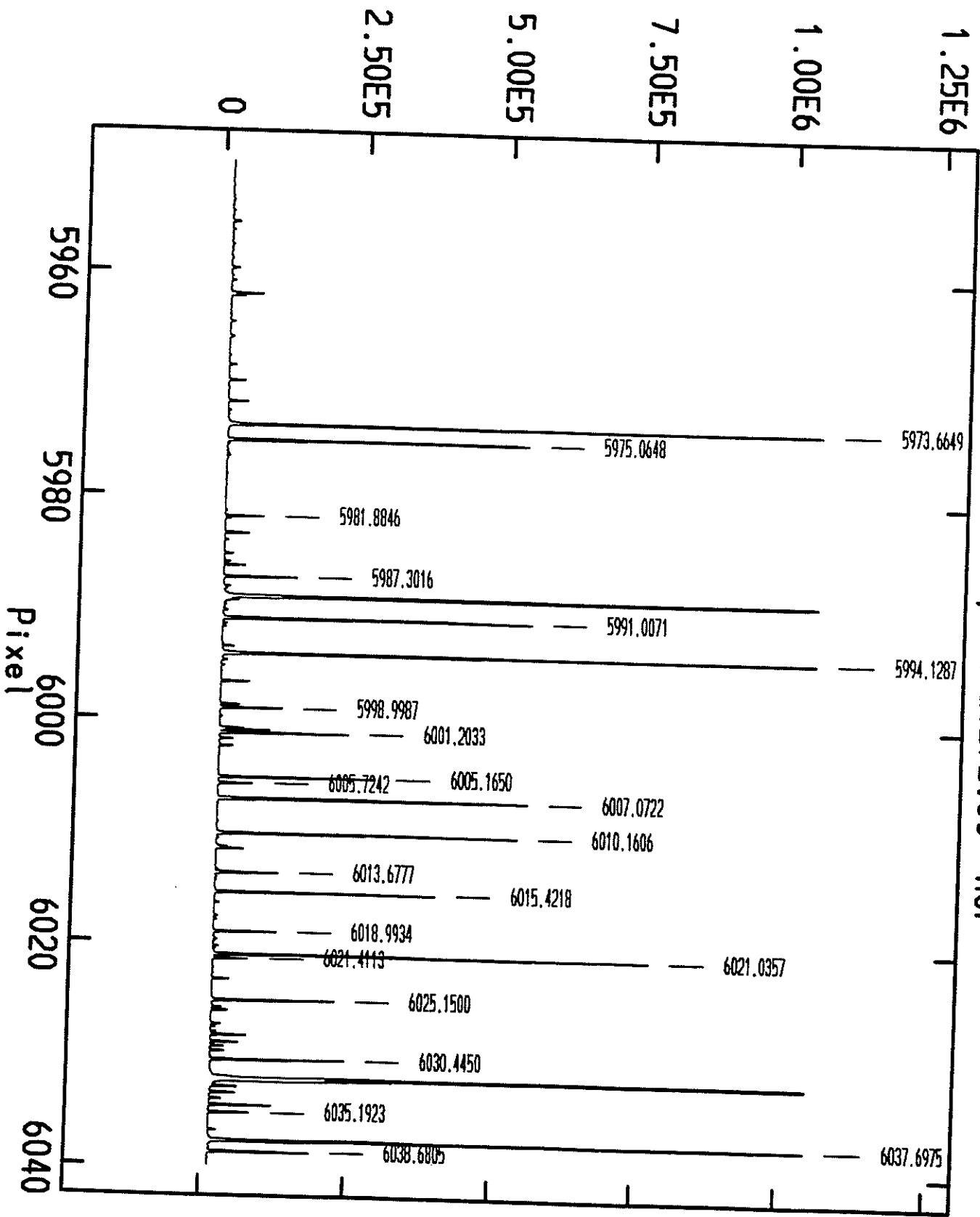
QAO/IRAF V2.10EXPORT mk@umbra.VRSC.EDU Mon 15:53:35 13-Sep-93
Aperture 2/ image 2/ Order 60
identify data0267.ec: hor



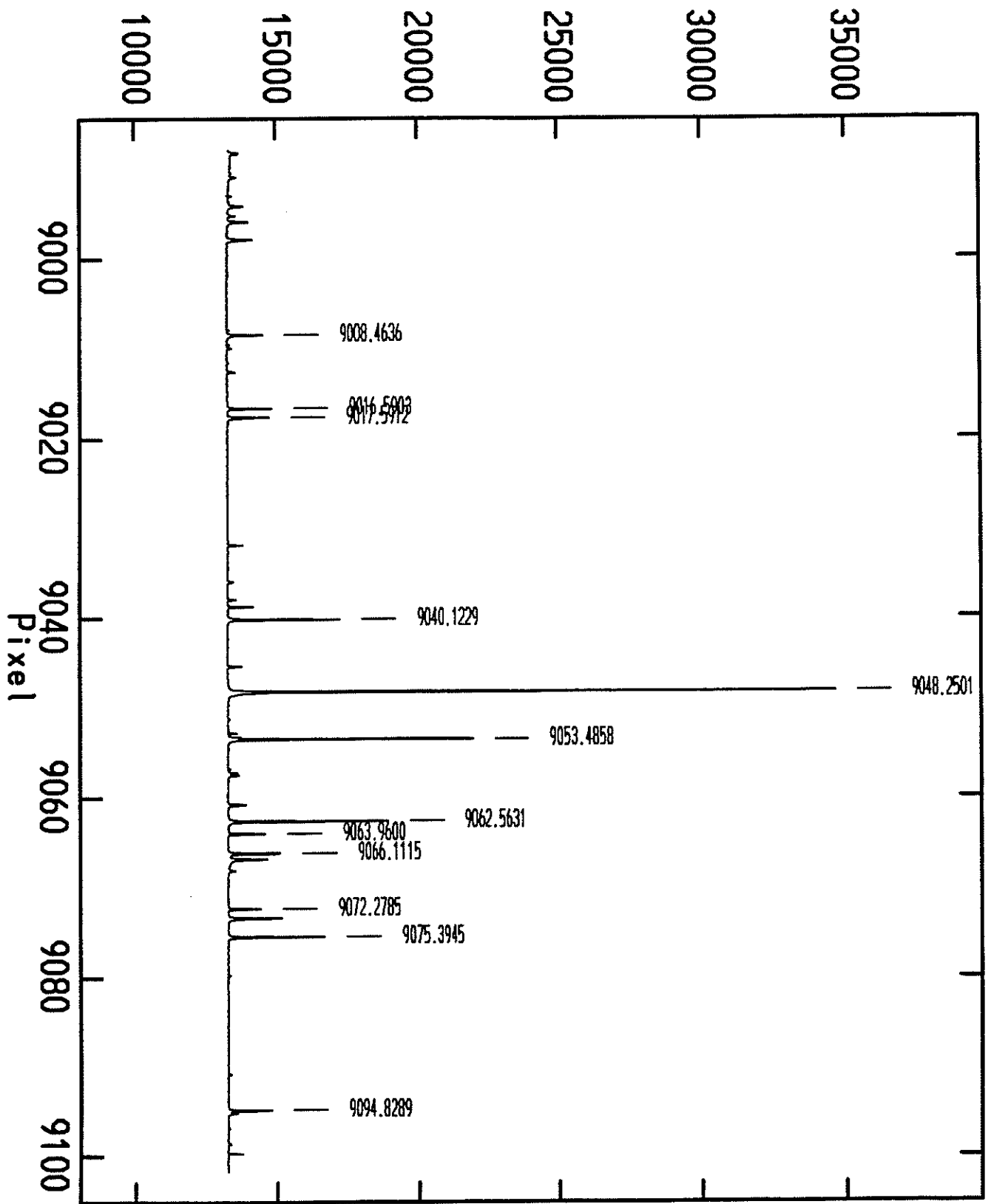
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:28:01 13-Sep-93
Aperture 16 Image Line 16 Order 60
Identify data0271.ec: hor



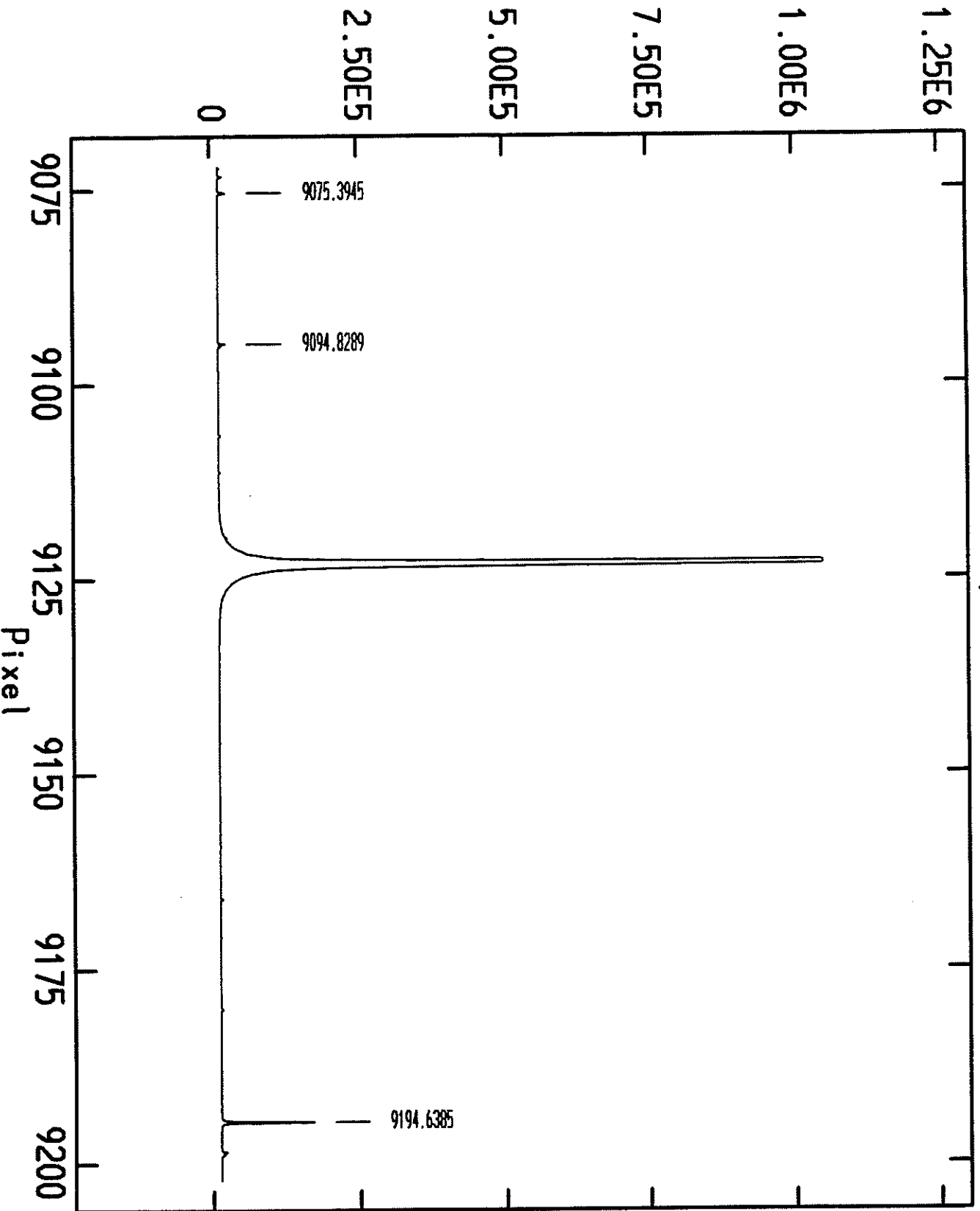
QA0/IRAF V2.10EXPORT pk@umbra.1~SC:EDU Mgn 16:24:17 13-Sep-93
 Aperture 16 Image 16 Order 59
 Identify data0272.ec: hor



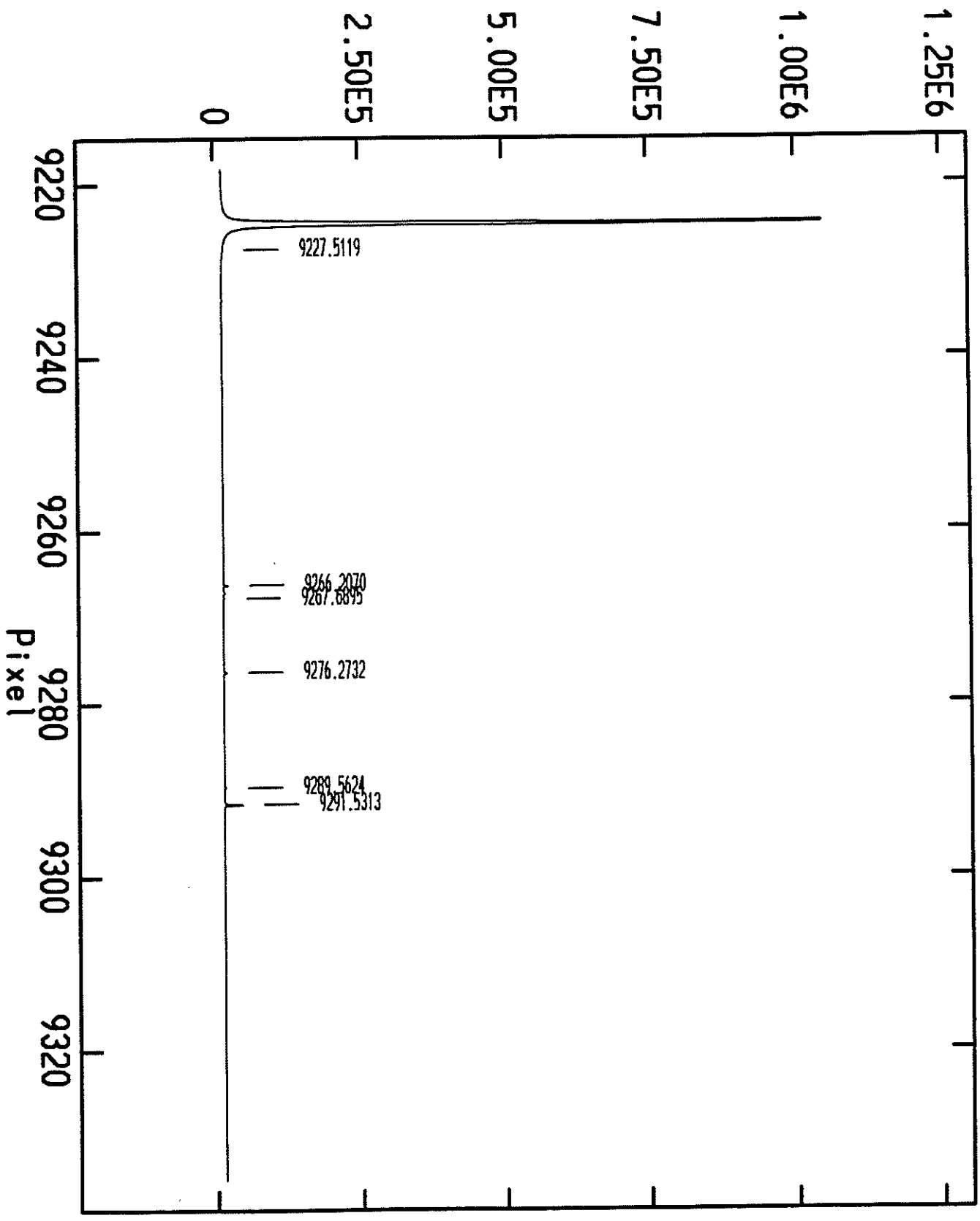
GAO/IRAF V2.10EXPORT mkumbra.vrsc.edu Mon 16:33:16 13-Sep-93
Aperture Image Wavelength Order
Identify data 0284.ec: hor



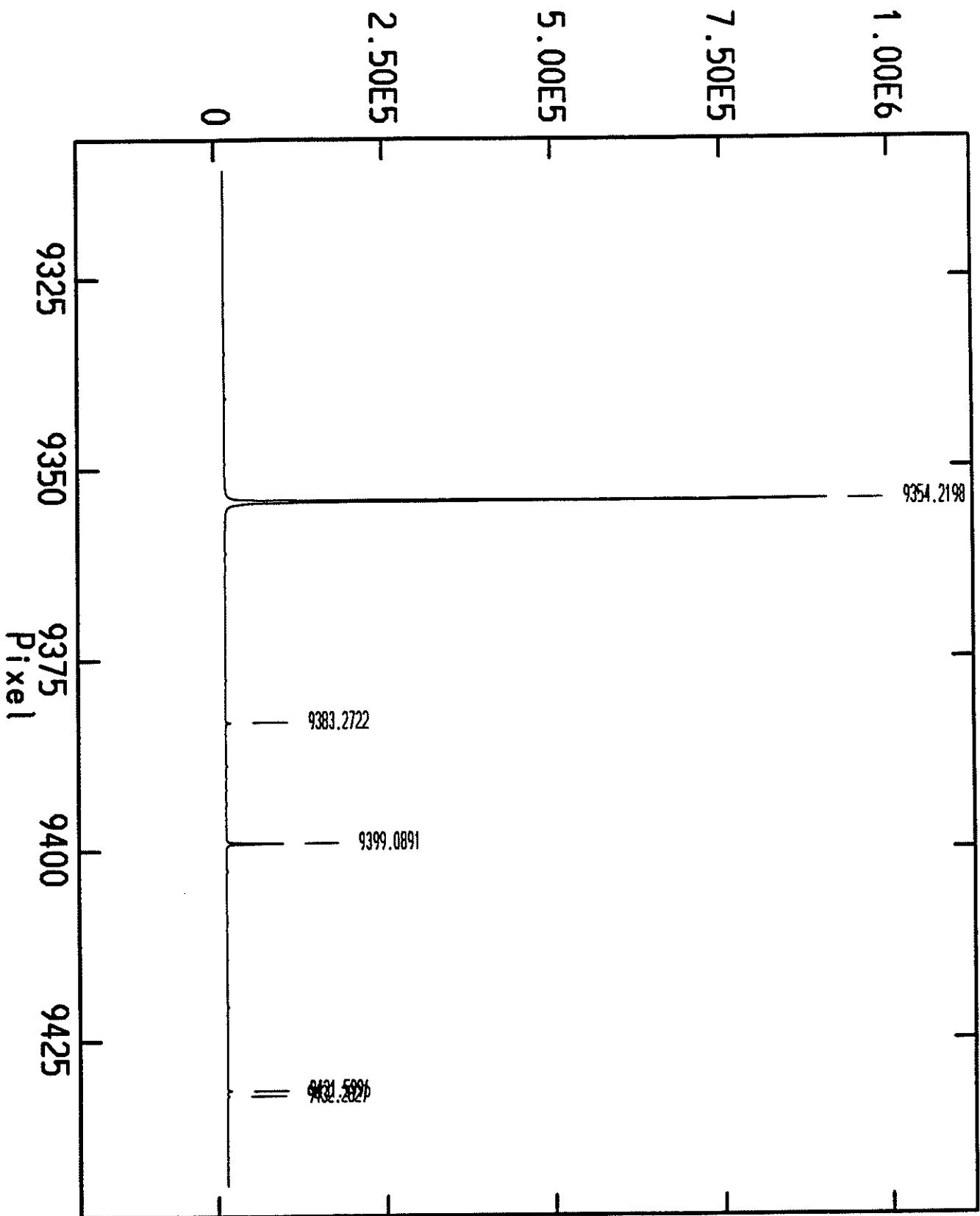
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:11:25 13-Sep-93
Aperture 8 Image 1188 Order 39
identify data0280.ec: hor



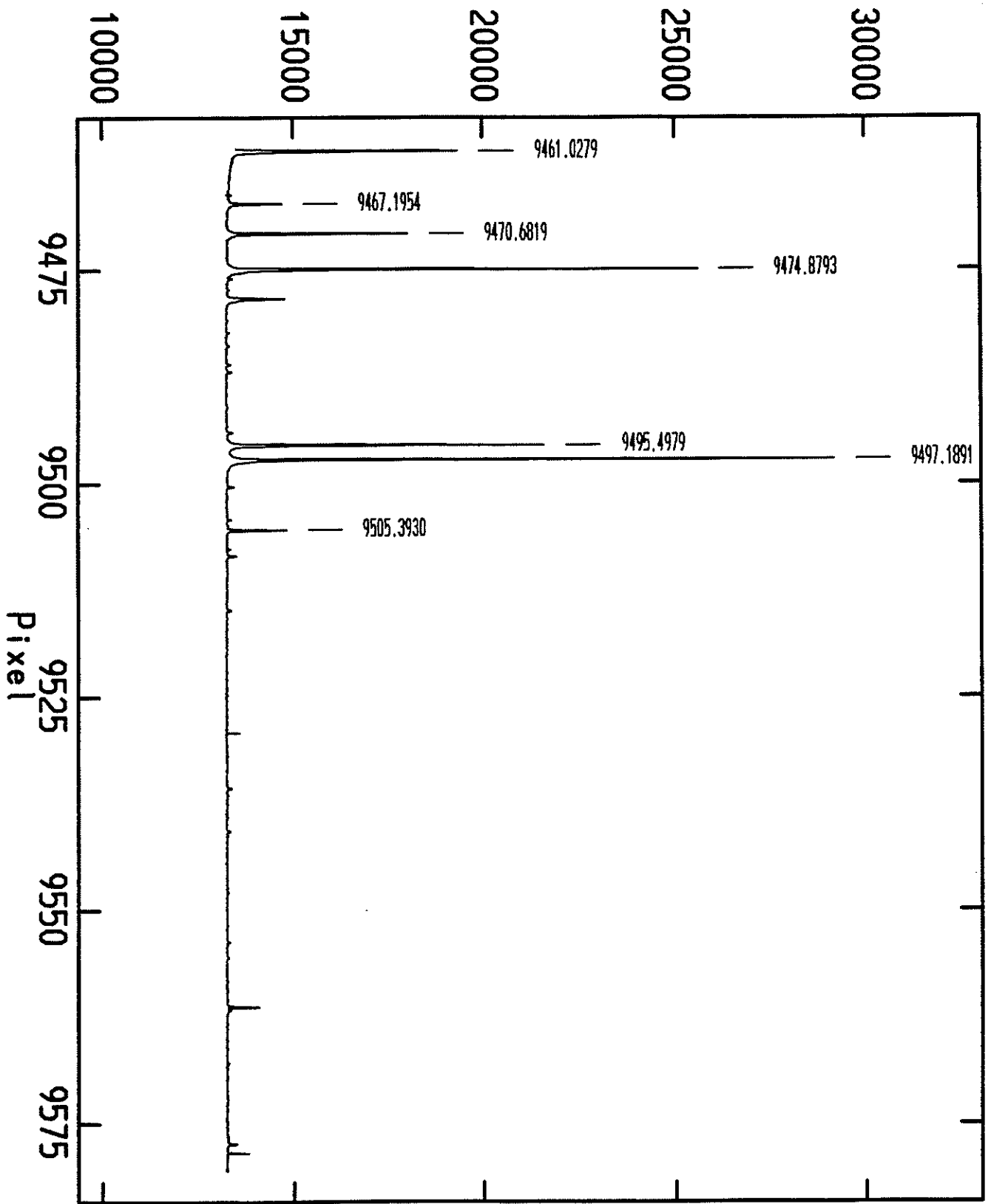
NOAO/IRAF V2.10EXPORT mk@umbra: /SC:EDU Mon 16:33:22 13-Sep-93
Aperture Image (1989) Order 39
identify data0284.ec: hor



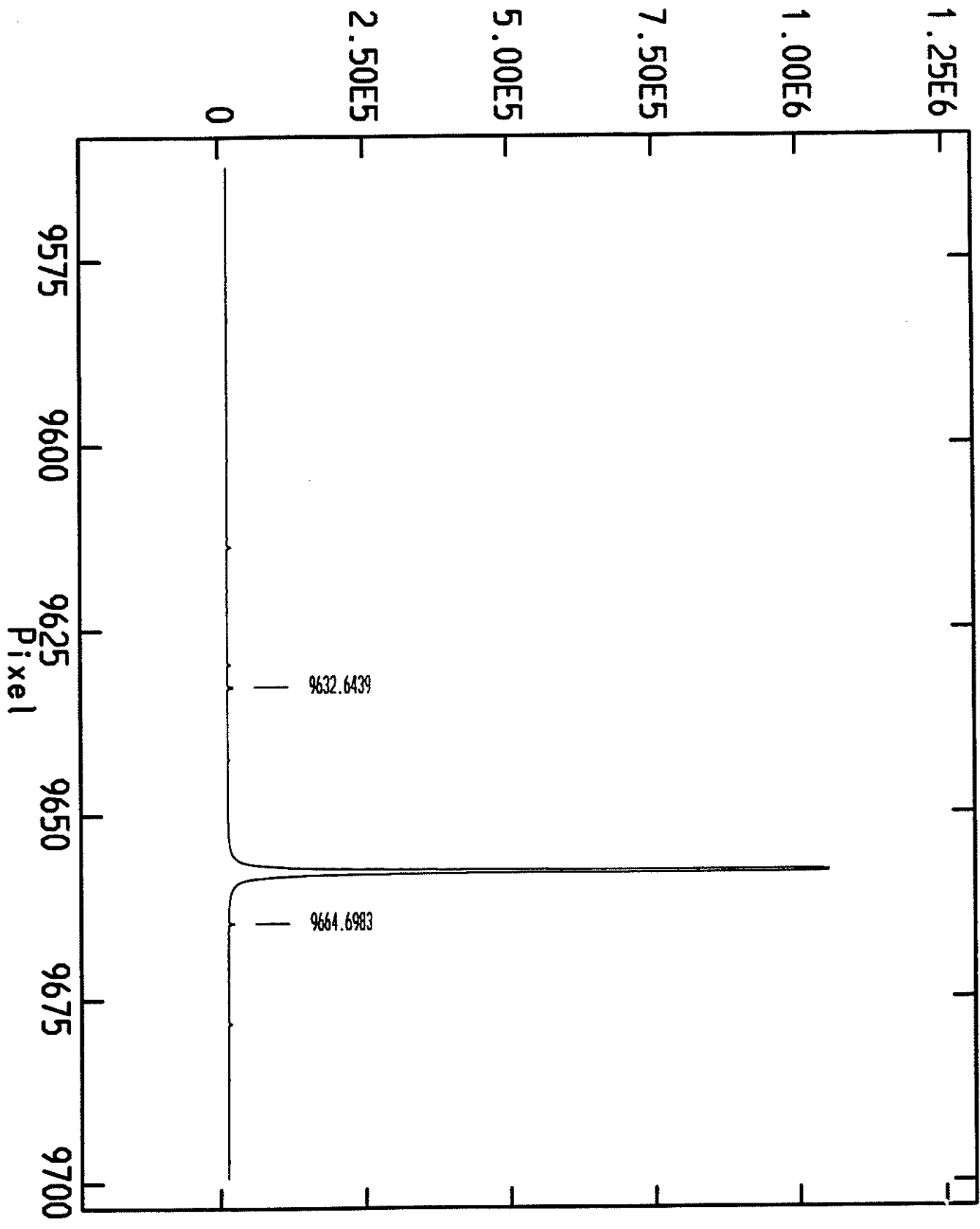
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:11:30 13-Sep-93
Aperture Image 1180 Order 38
identify data0280.ec: hor



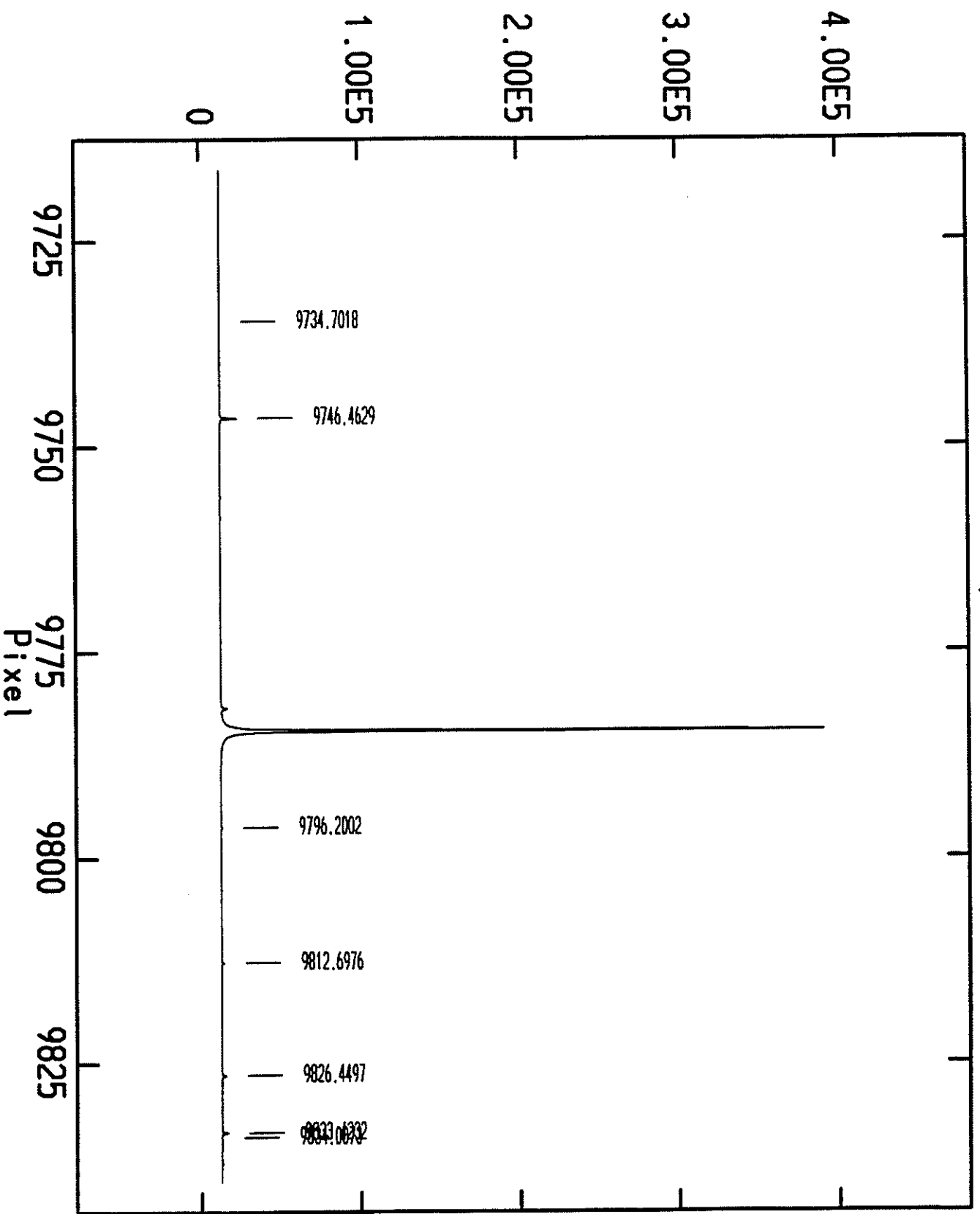
QA0/IRAF V2.10EXPORT of umbra.173C.EDU Mn 16:33:29 13-Sep-93
Aperture 10 Image 10 Order 38
Identify data 0284.ec: hor



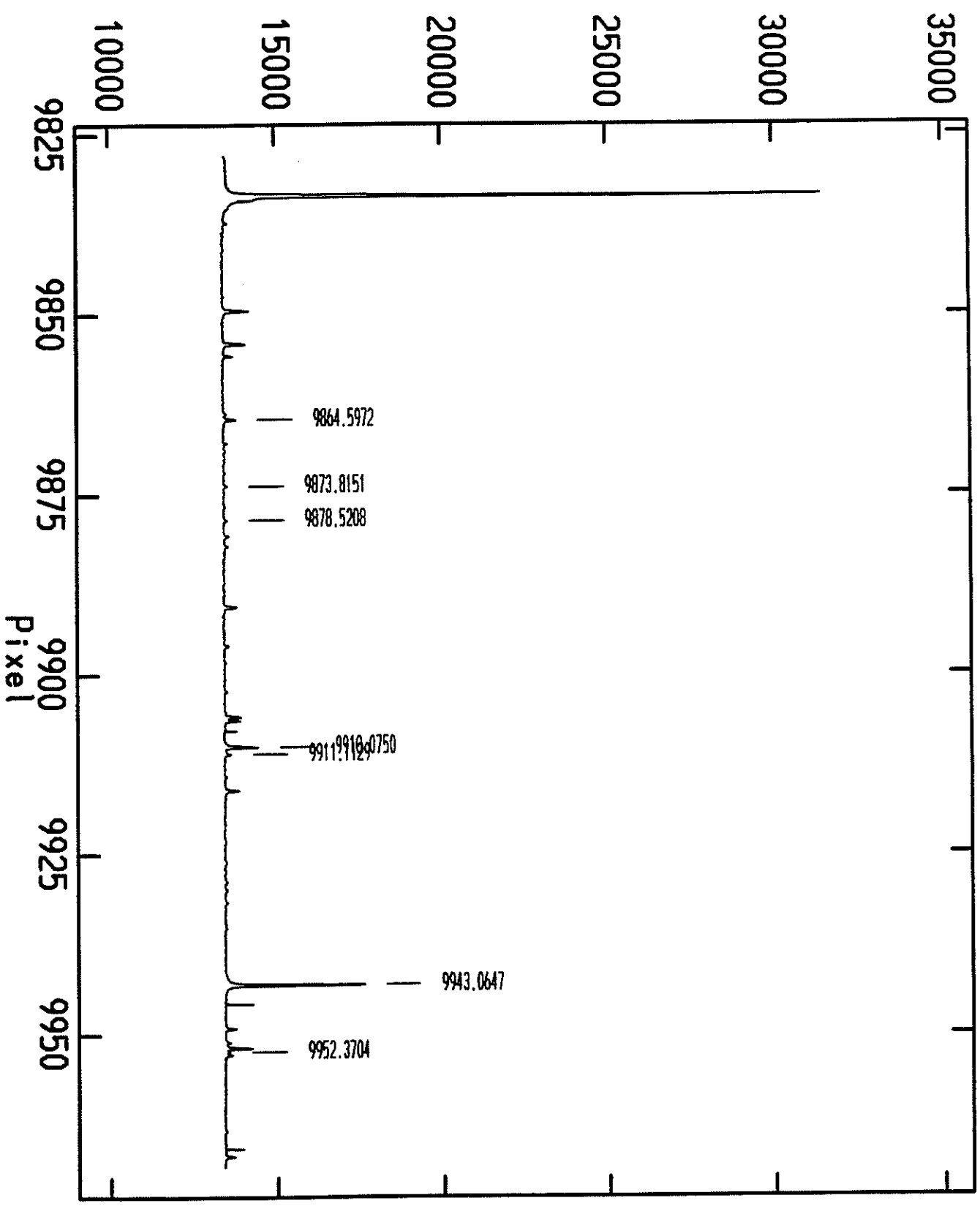
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:11:35 13-Sep-93
Aperture 10 Image 10 Order 37
identify data0280.ec: hor



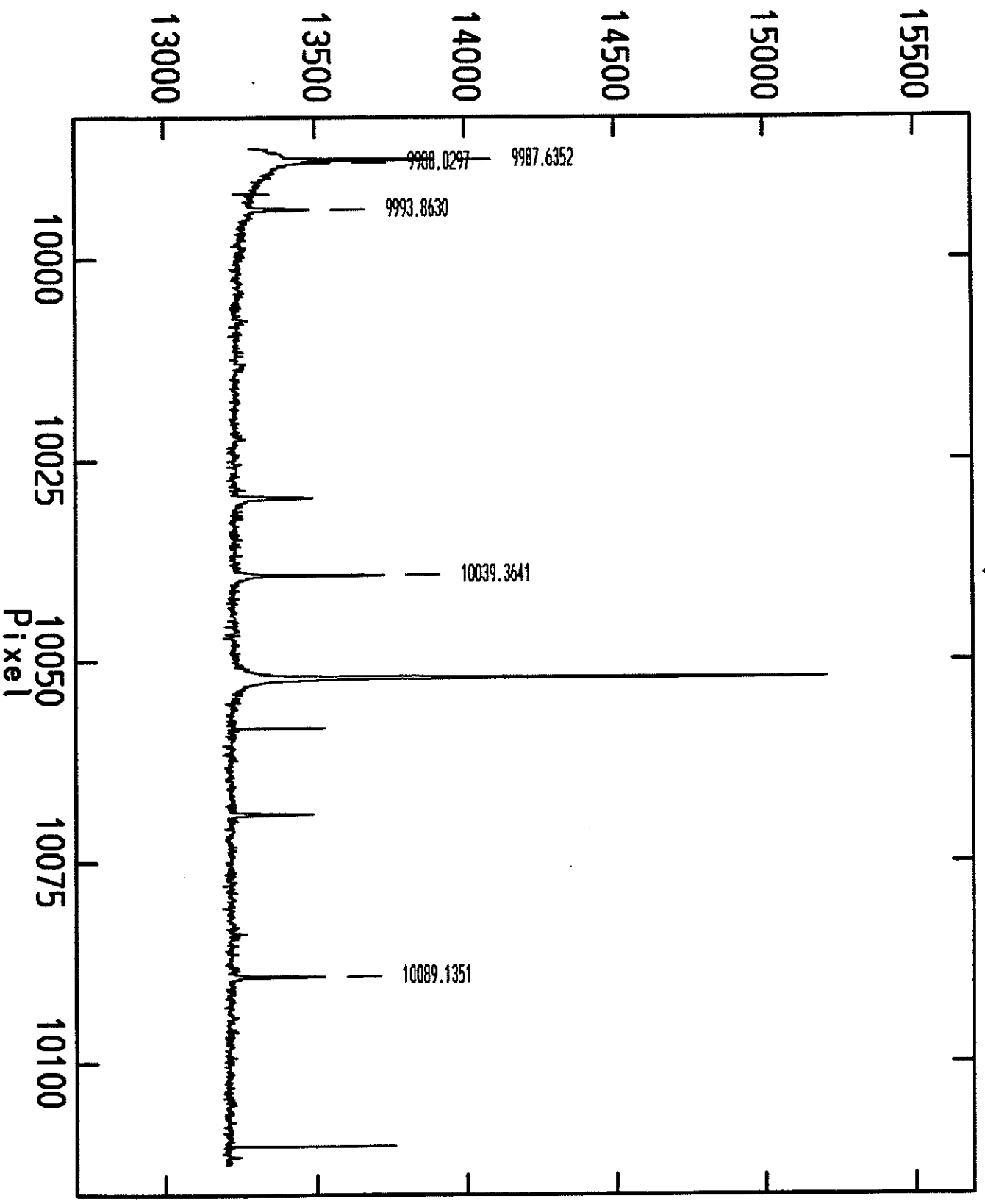
NOAO/IRAF V2.10EXPORT pk@umbra: /SC.EDU Mgn 16:34:08 13-Sep-93
Aperture Image File: Order 3/
Identify data0284.ec: hor



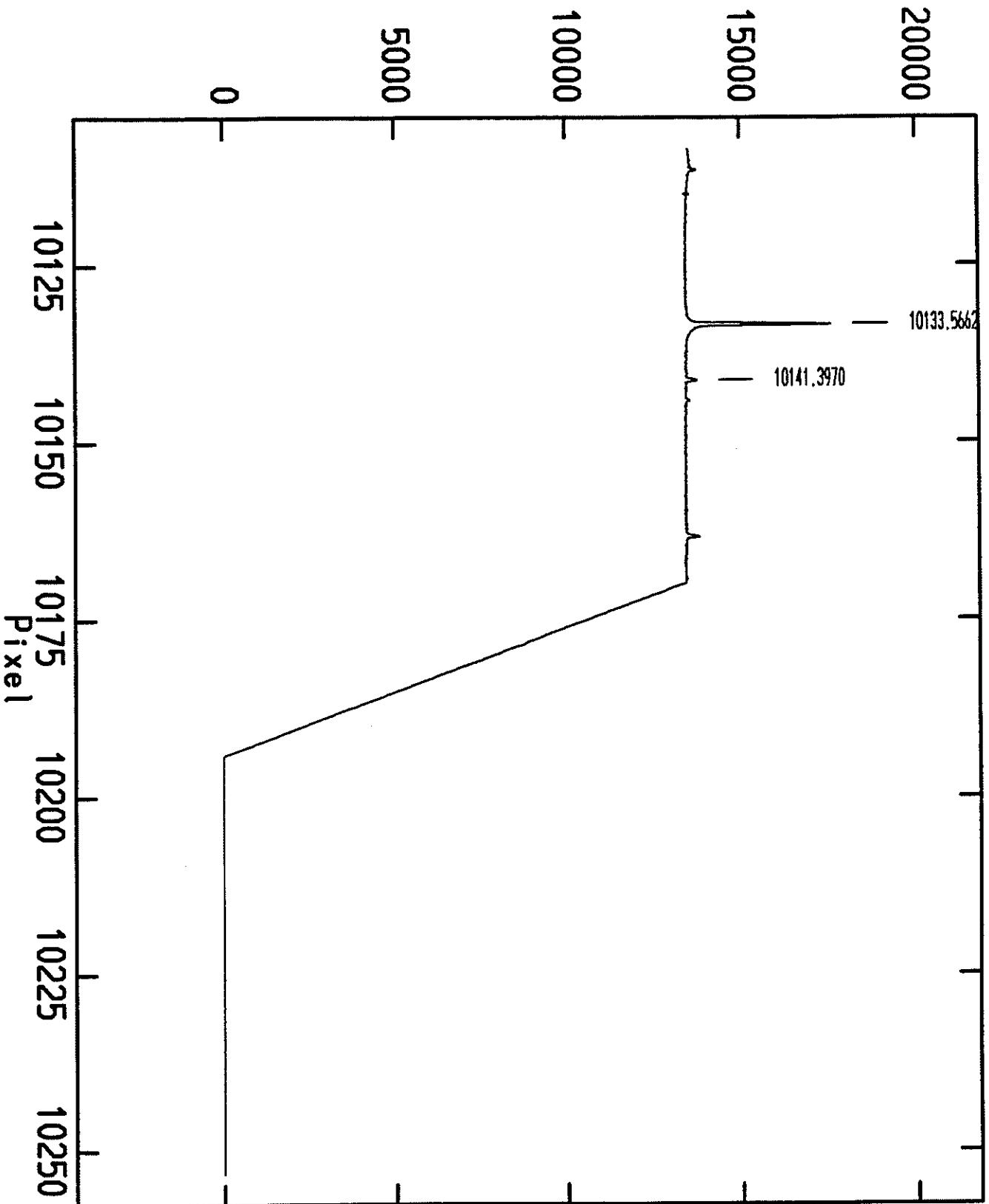
NOAO/IRAF V2.10EXPORT mk@uobra.UCSC.EDU Mgn 16:16:41 13-Sep-93
Aperture 11 image 1188 Order 36
eidentiffy data0280.ec: hor



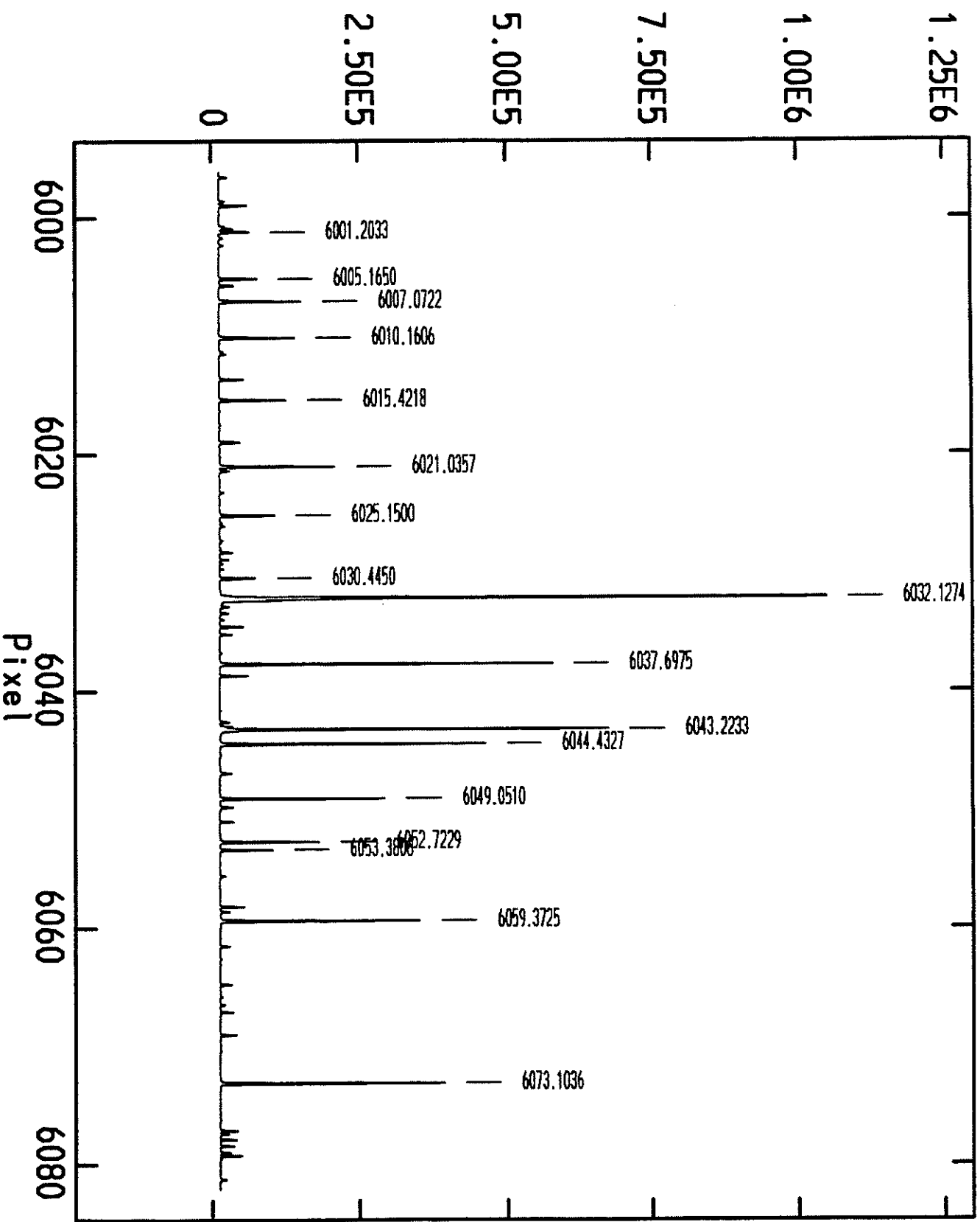
NOAO/IRAF V2.10EXPORT qk@umbra.1~SC.EDU Mgn 16:34:15 13-Sep-93
Aperture 12, Image 12, Order 36
Identify data 0284.ec: hor



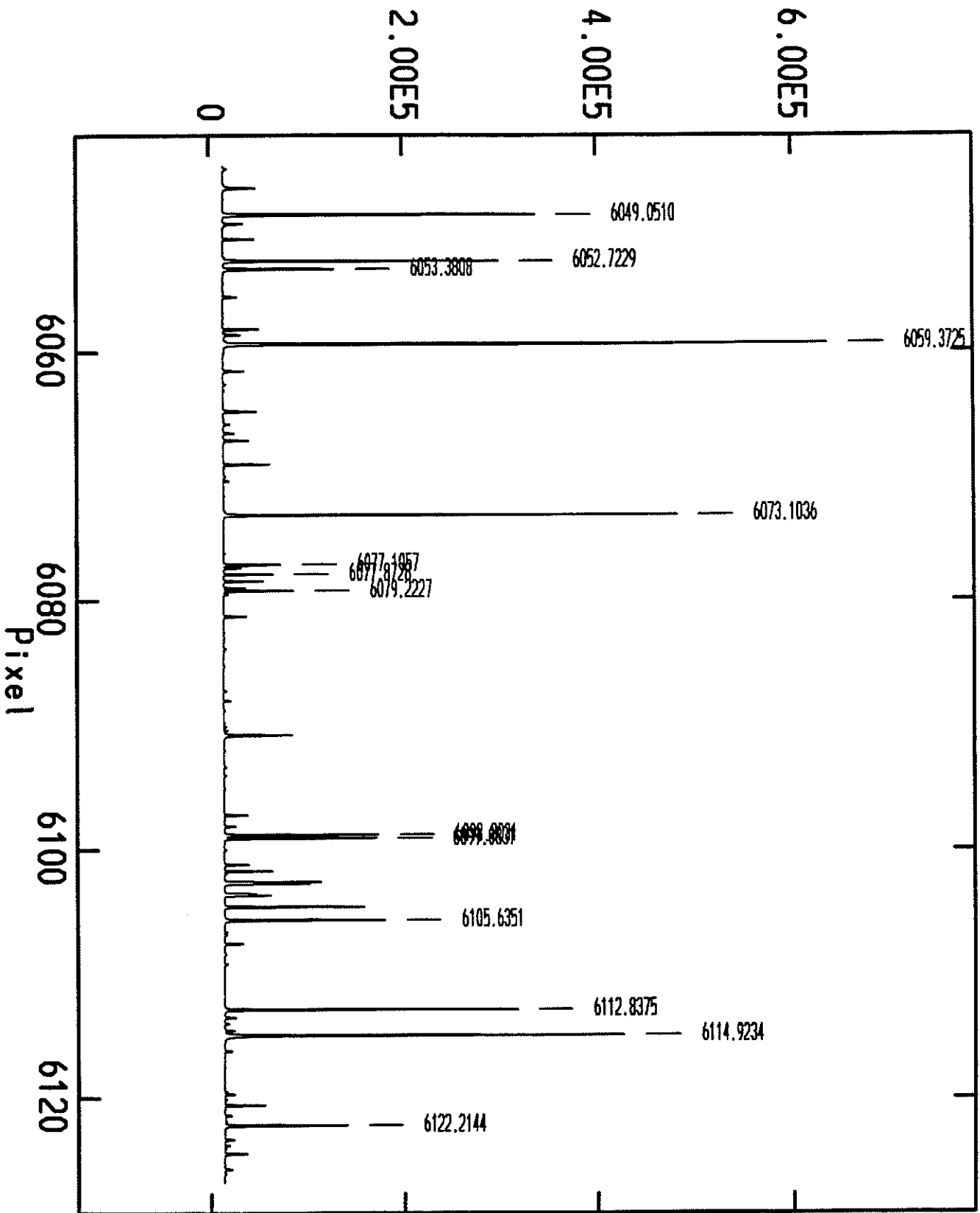
NOAO/IRAF V2.10EXPORT pk@umbra.UCSC.EDU Mon 16:16:48 13-Sep-93
Aperture 12 Image bin 12 Order 35
Identify data0280.ec: hor

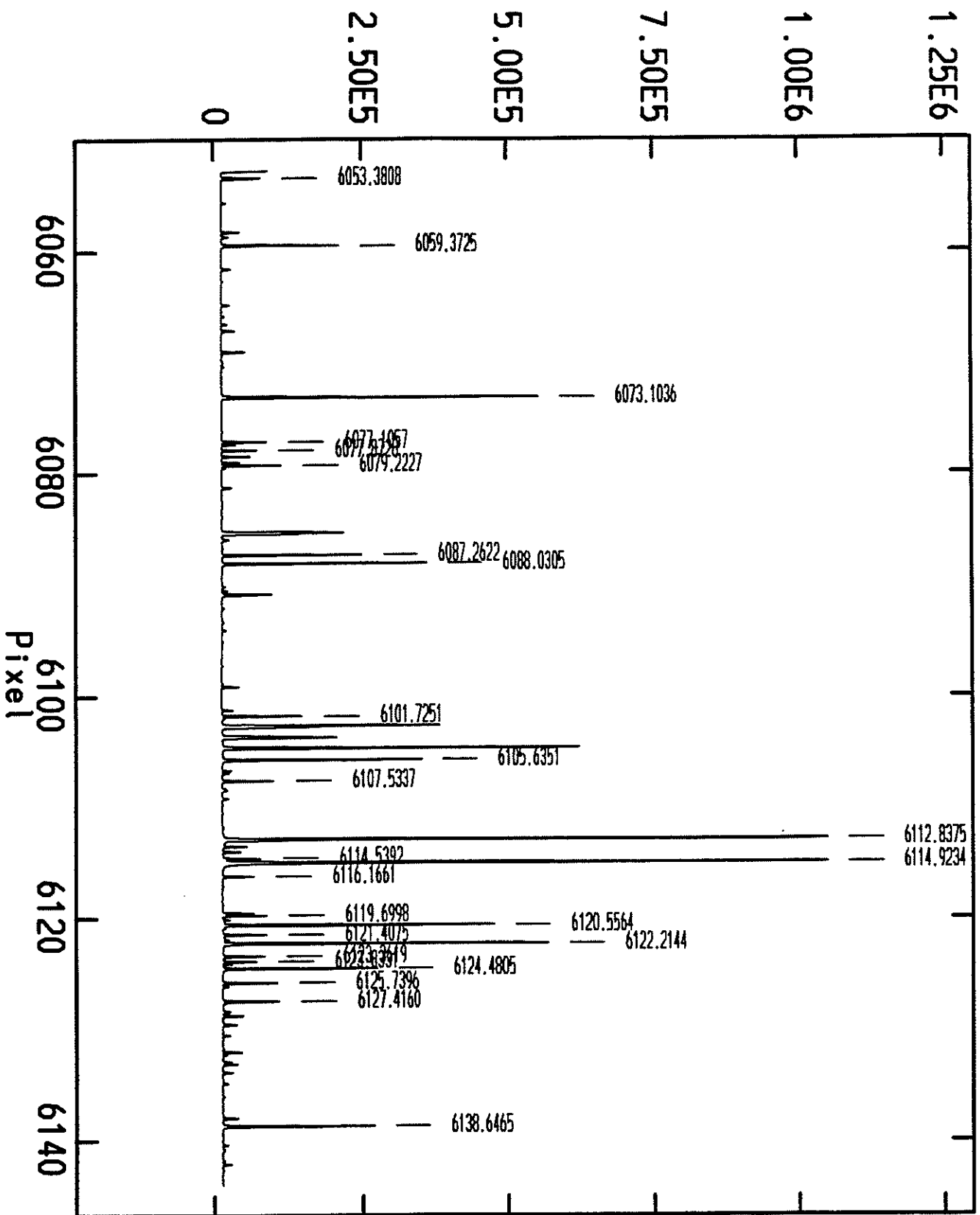


NOAO/IRAF V2.10EXPORT μ keumbra UCSC.EDU Mn 15:54:34 13-Sep-93
Aperture 28 Image File 28 Order 59
identify data0267.ec: hor

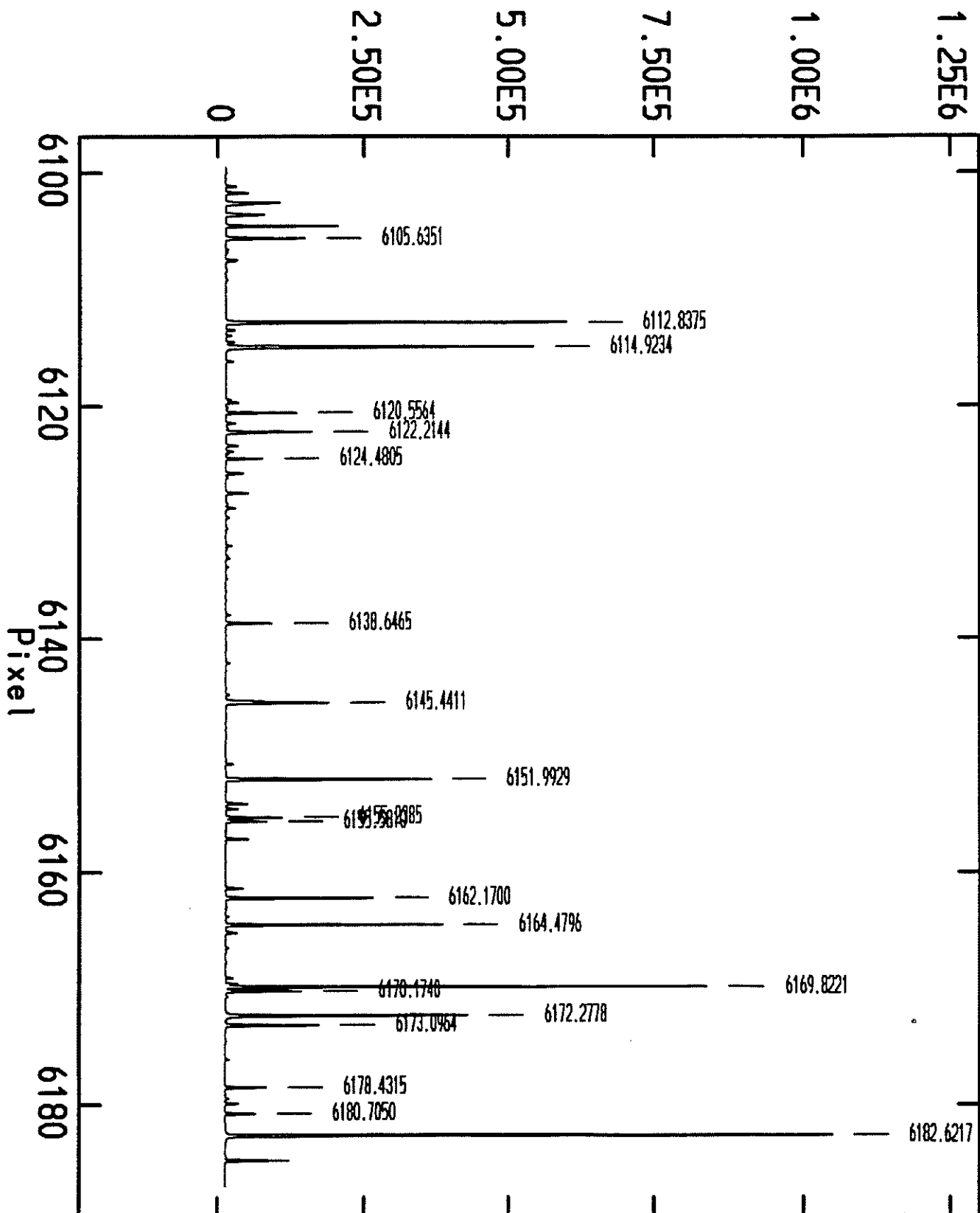


GAO/IRAF V2.10EXPORT pk@umbra.UCC.EPY Mon 16:28:05 13-Sep-93
Aperture Image Wavelength Order 59
identify data0271.ec: hor

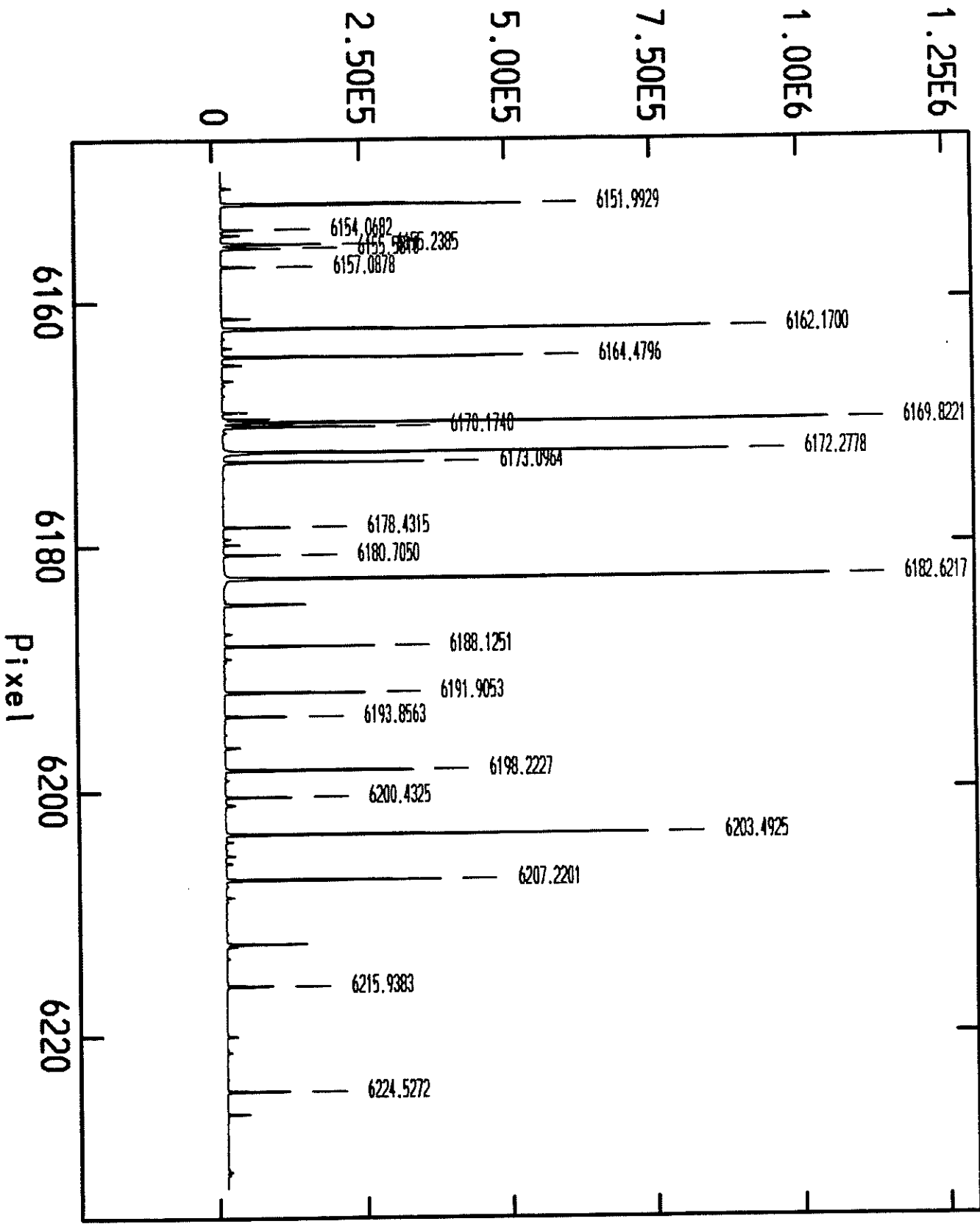




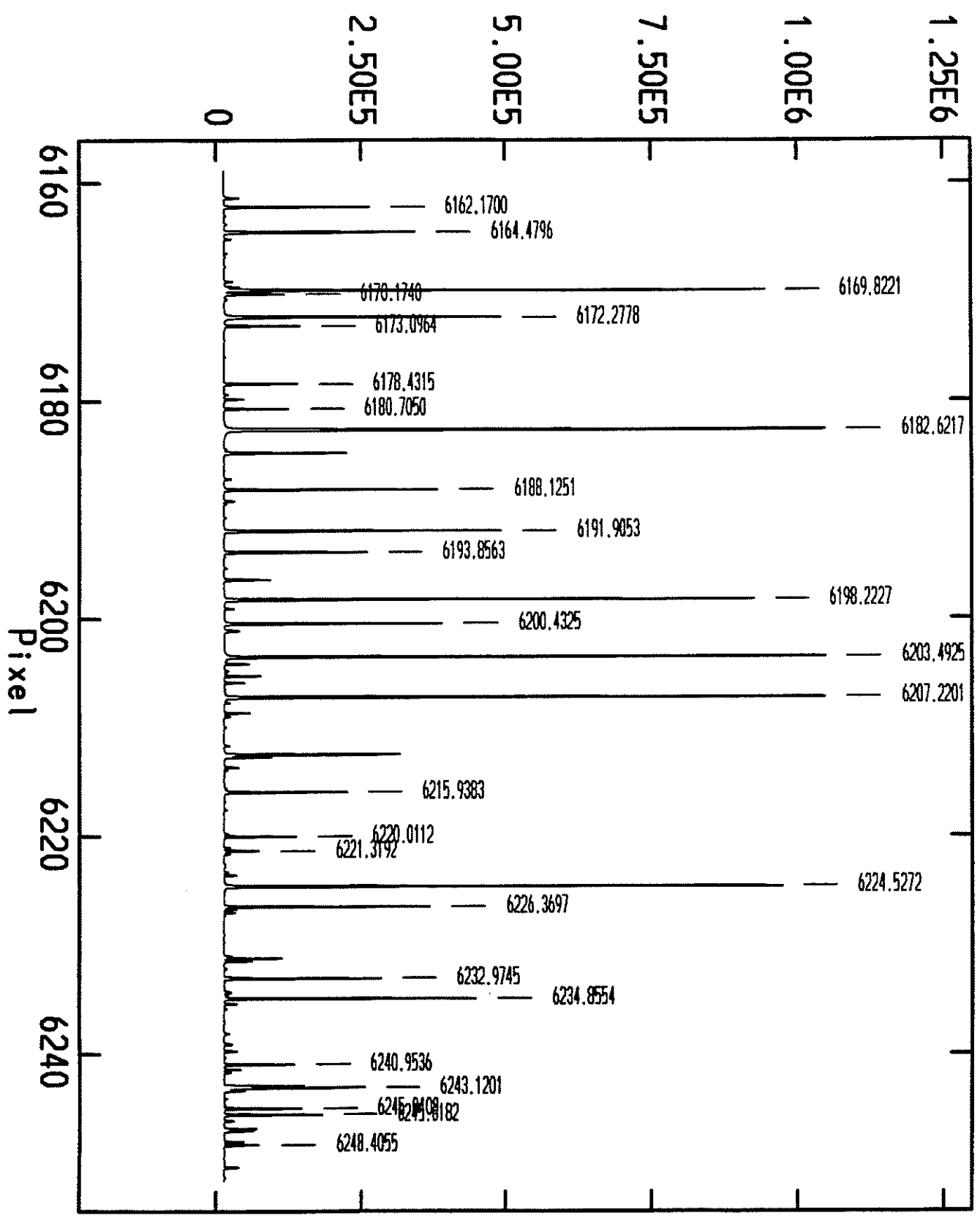
QA0/IRAF V2.10EXPORT mk @ umbra. VSC.EDU Mon 15:54:40 13-Sep-93
Aperture 29 Image 10e Order 58
identify data 0267.ec: hor



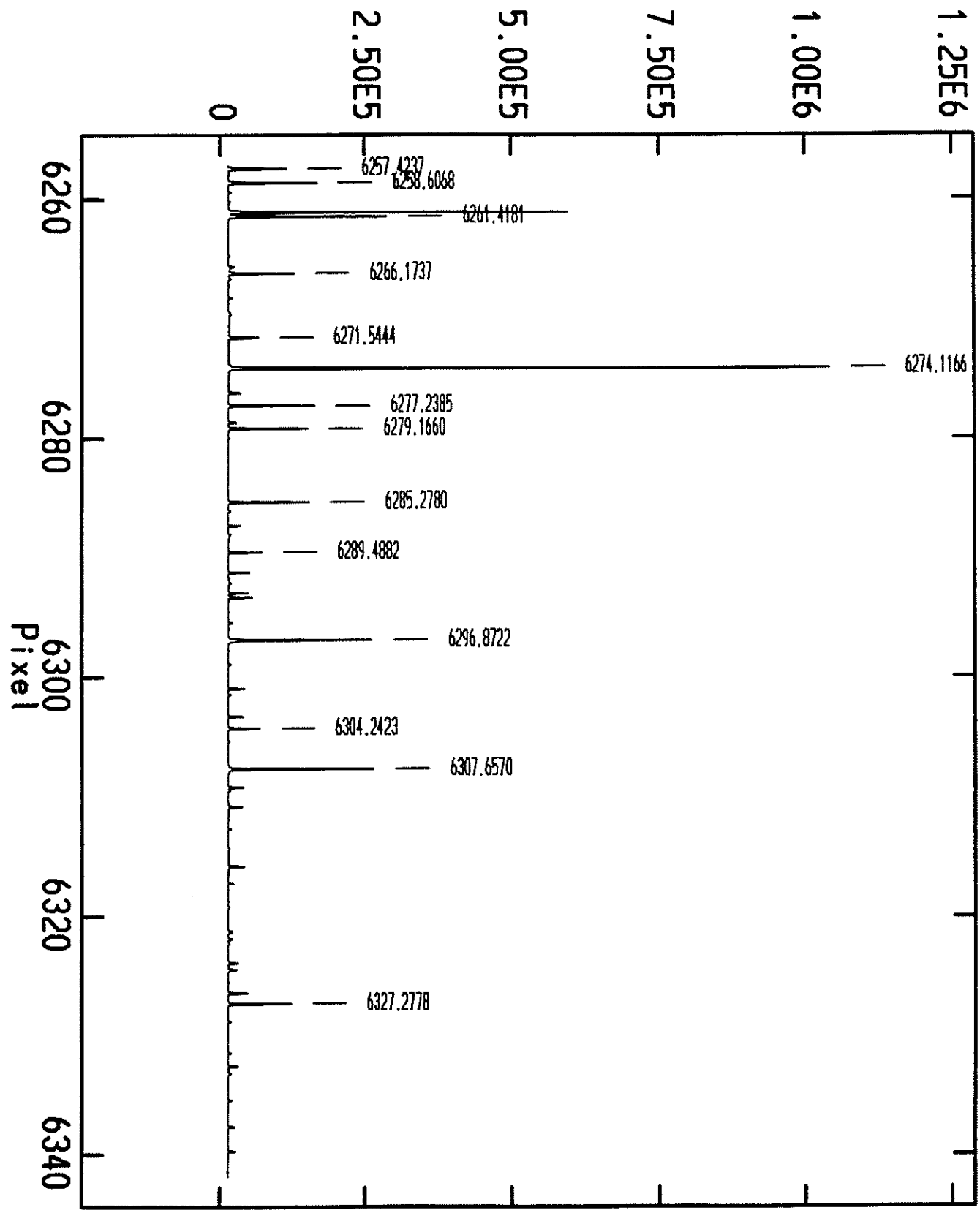
NOAO/IRAF V2.10EXPORT mk_eumbr.a.UCSC.EDU Mgn_16:28:09 13-Sep-93
Aperture 18 Image file 18 Order 58
Identify data 0271.ec: hor



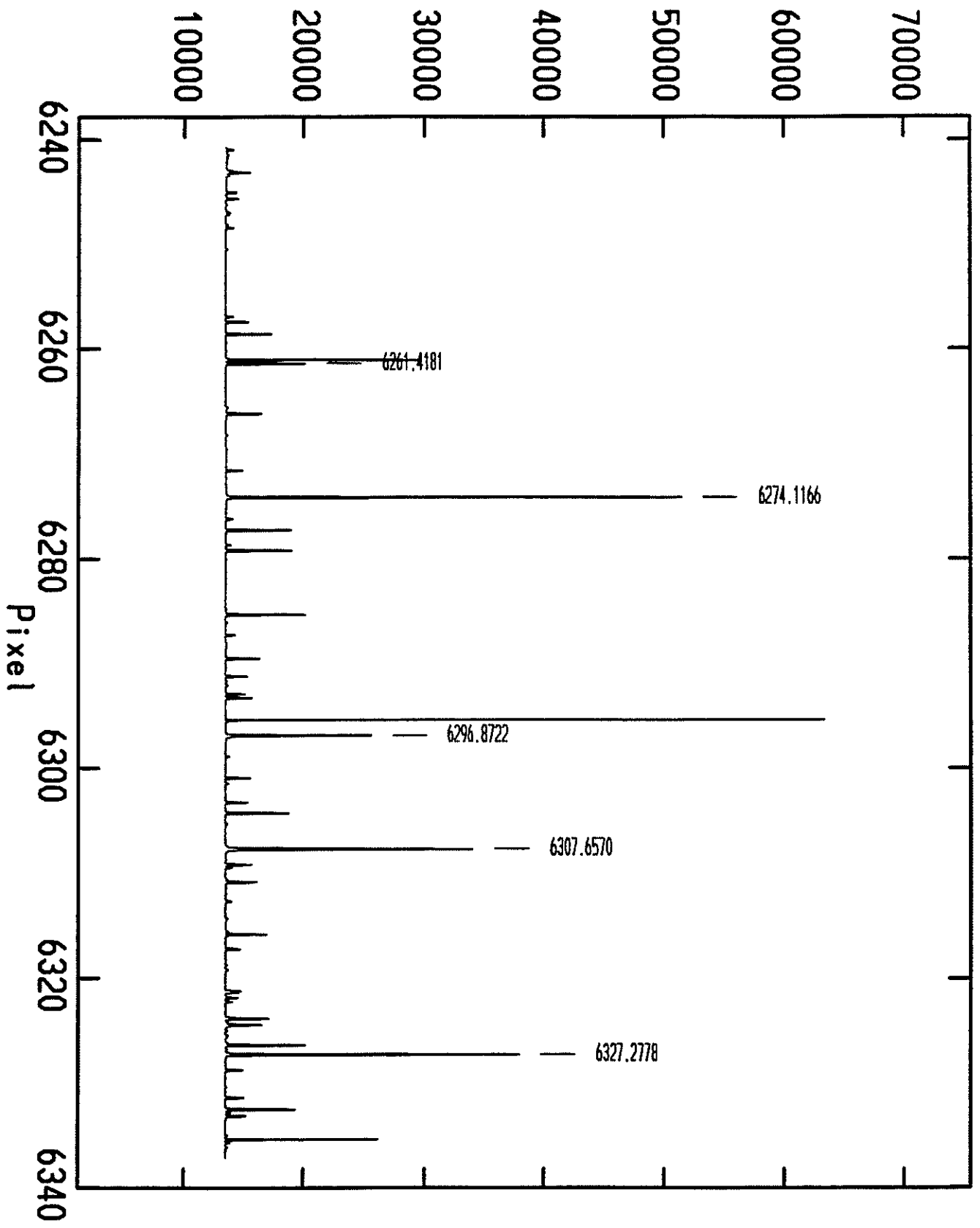
NOAO/IRAF V2.10EXPORT pkgumbra: "SC.EDU Mgn 16:24:26 13-Sep-93
 Aperture 18. Image 18. Order 5
 Identify data0272.ec: hor



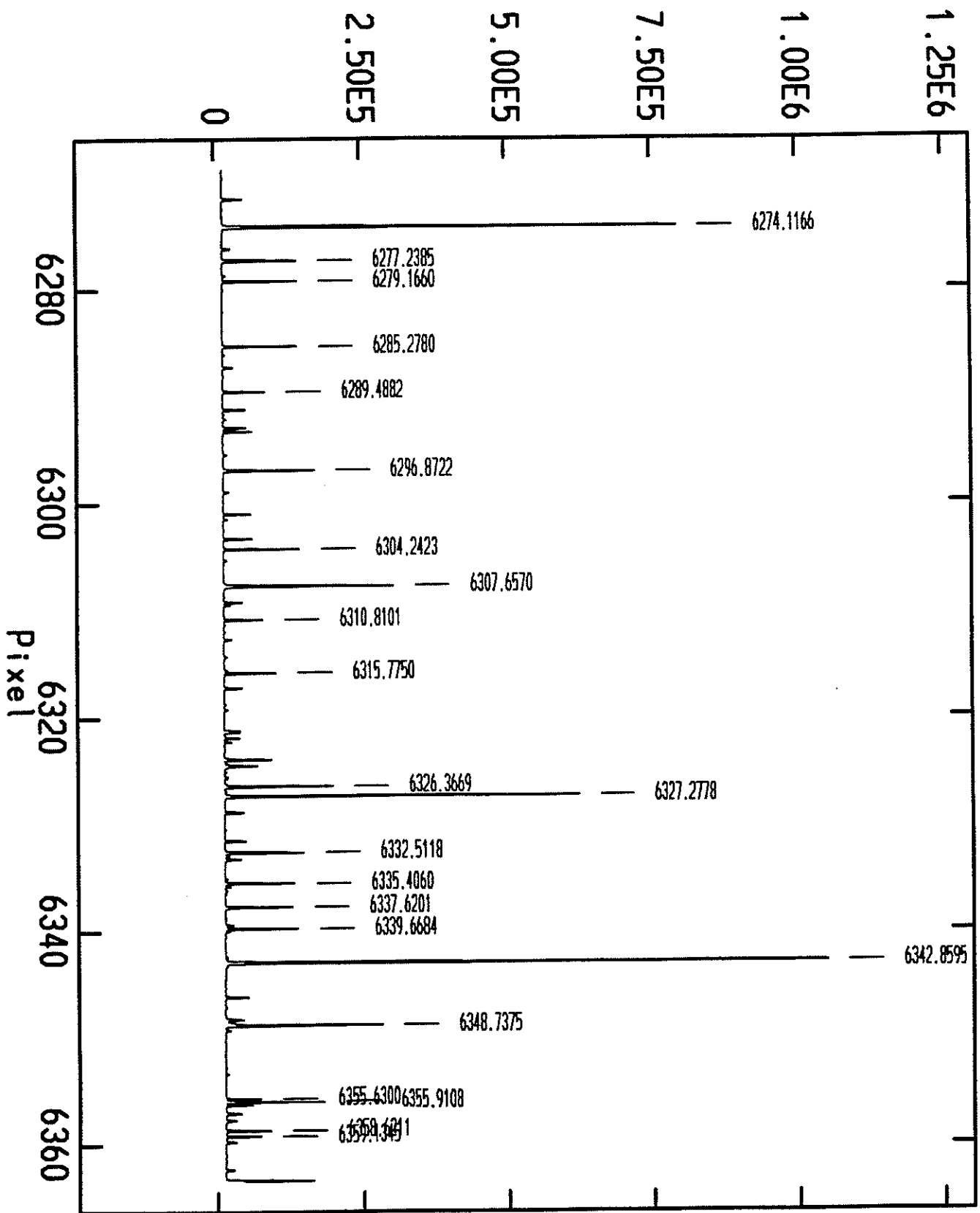
'QAO/IRAF V2.10EXPORT pk@umbr.a.' SC:EDU Mn 16:29:13 13-Sep-93
Aperture Image file: Order 5
identify data0271.ec: hor



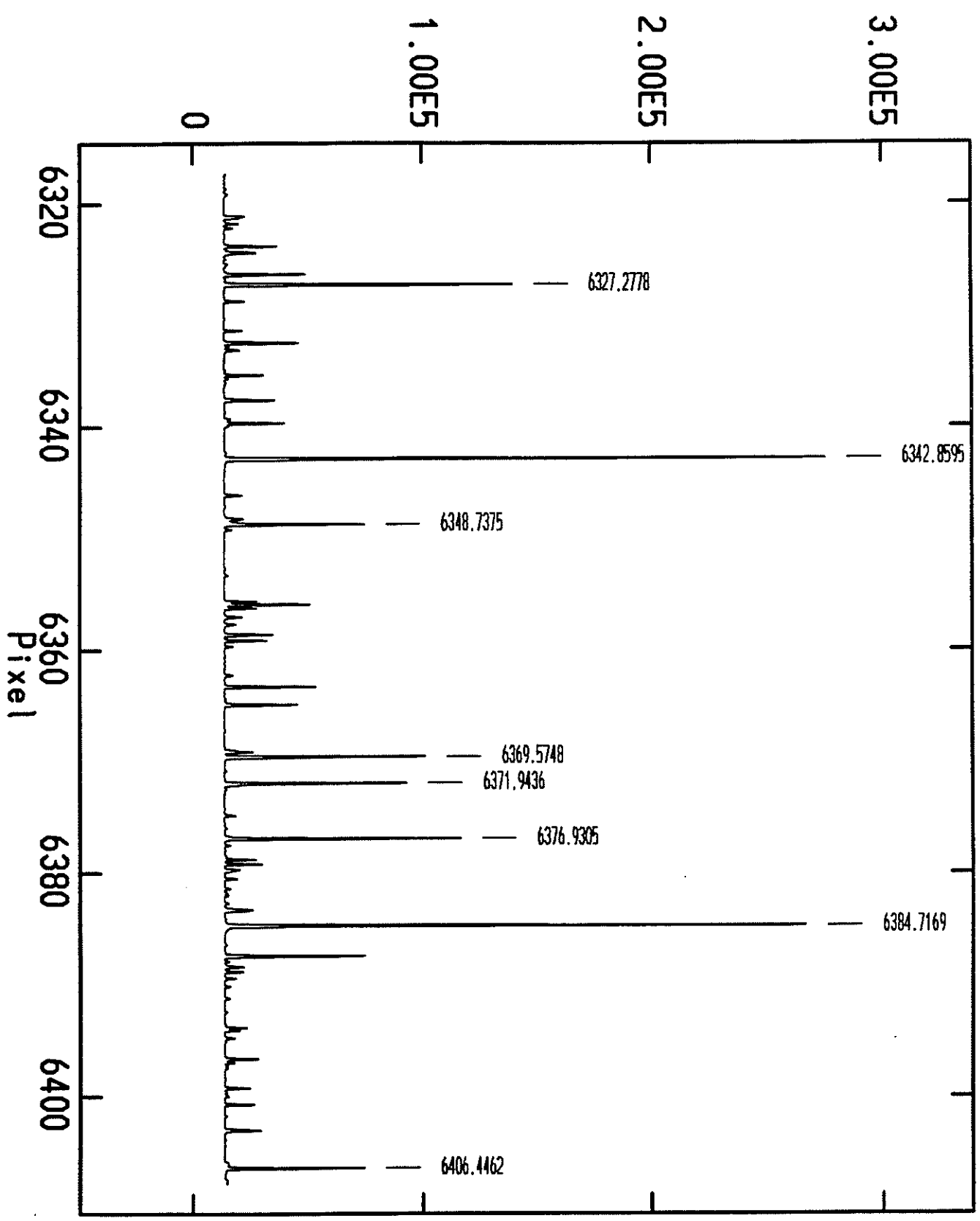
Aperture Image
Identify data0279.ec: hor



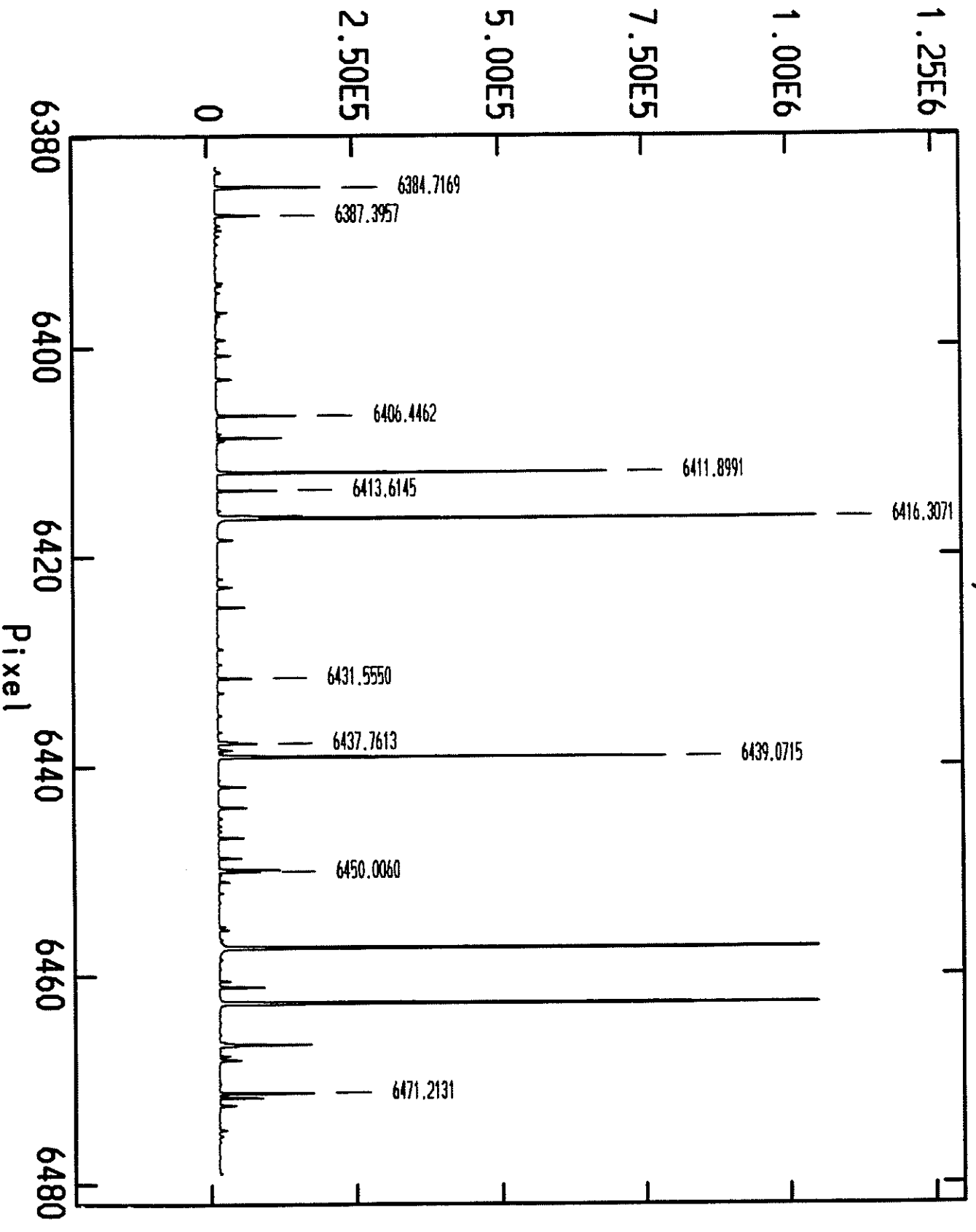
QAO/IRAF V2.10EXPORT keumbra.1 SC:EDU Mn 16:24:32 13-Sep-93
 Aperture Image Line Order 56
 identify data0272.ec: hor



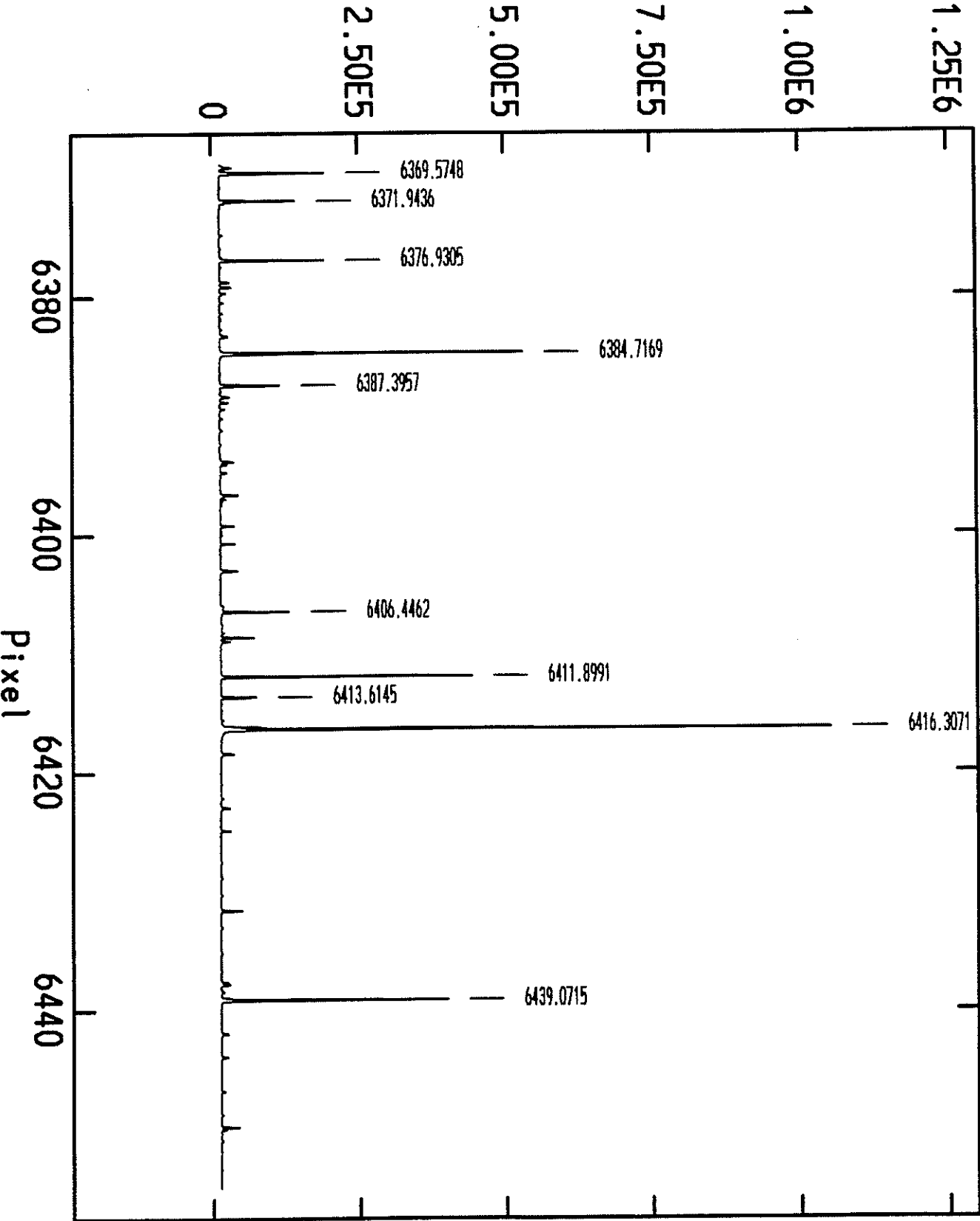
NOAO/IRAF V2.10EXPORT mk@umbr. UCSC. EDU Mn 15:54:50 13-Sep-93
Aperture 31
Image file 31
Order 56
Identify data 0267.ec: hor



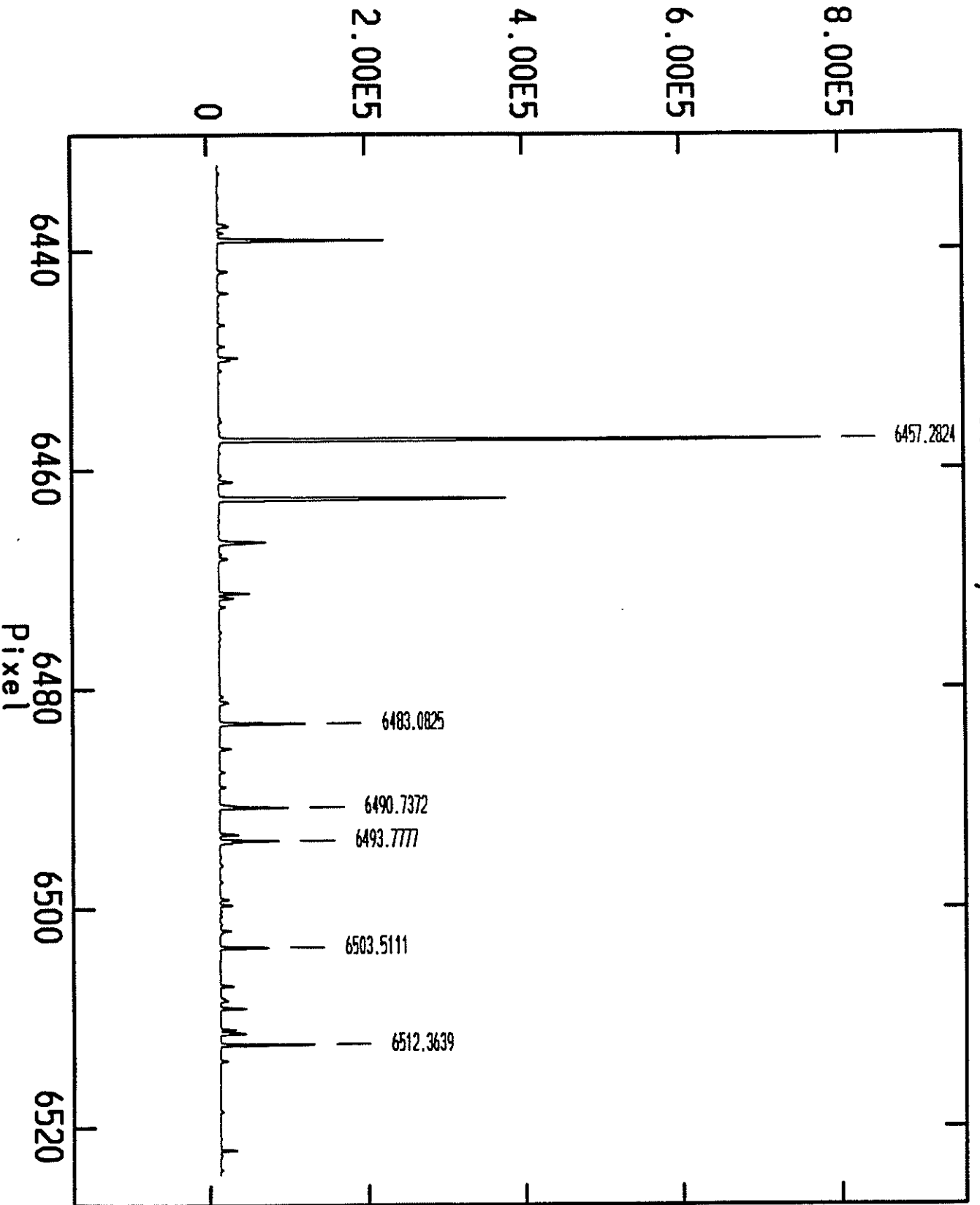
NOAO/IRAF V2.10EXPORT μ CambrA UCSC.EDU Mgn 16:24:36 13-Sep-93
Aperture 20 Image file 20 Order 55
Identify data 0272.ec: hor



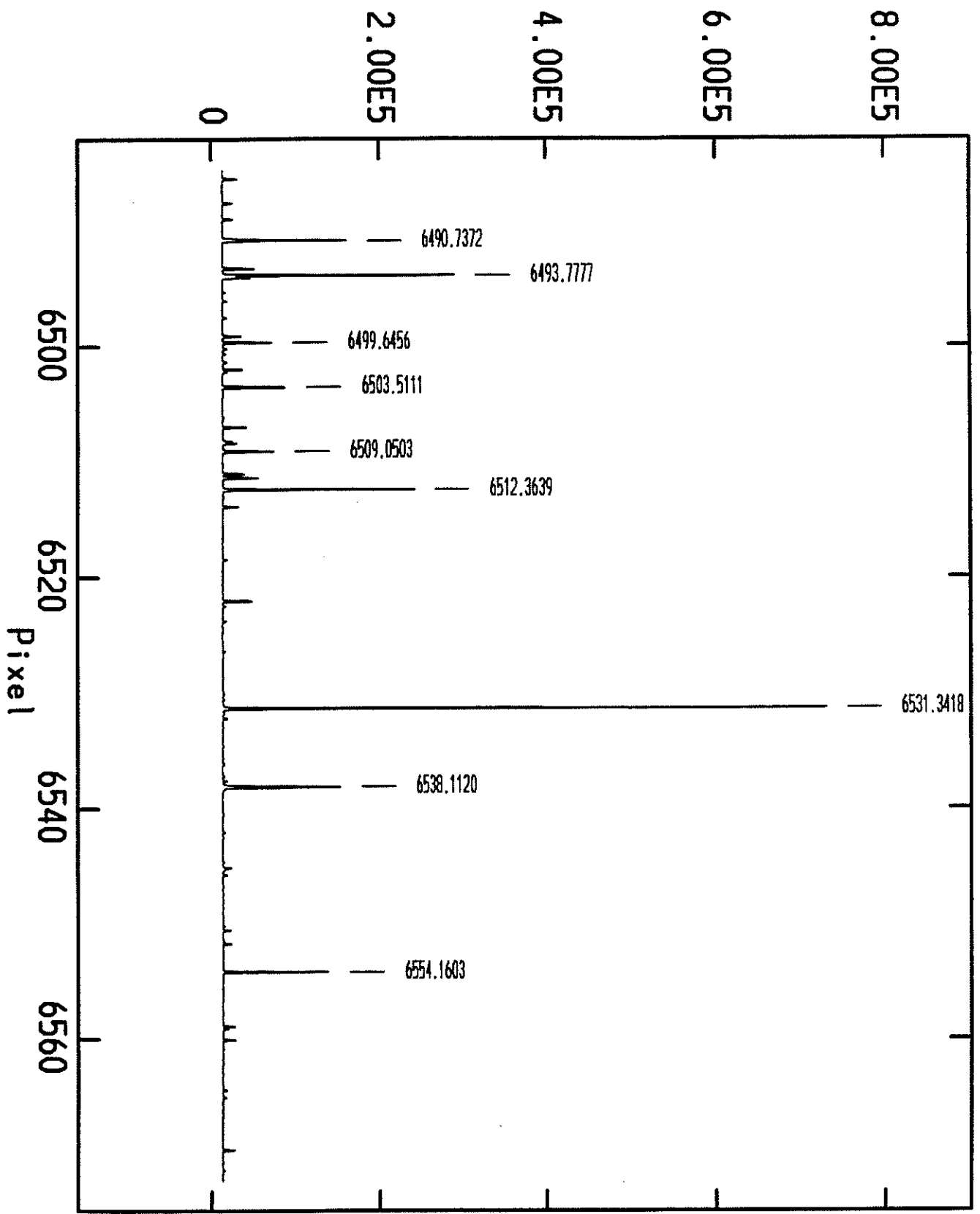
NOAO/IRAF V2.10EXPORT of image: "/SC.EDU Mgn 16:20:17 13-Sep-93
Aperture 20, image file 0271.ec: hor
identify data



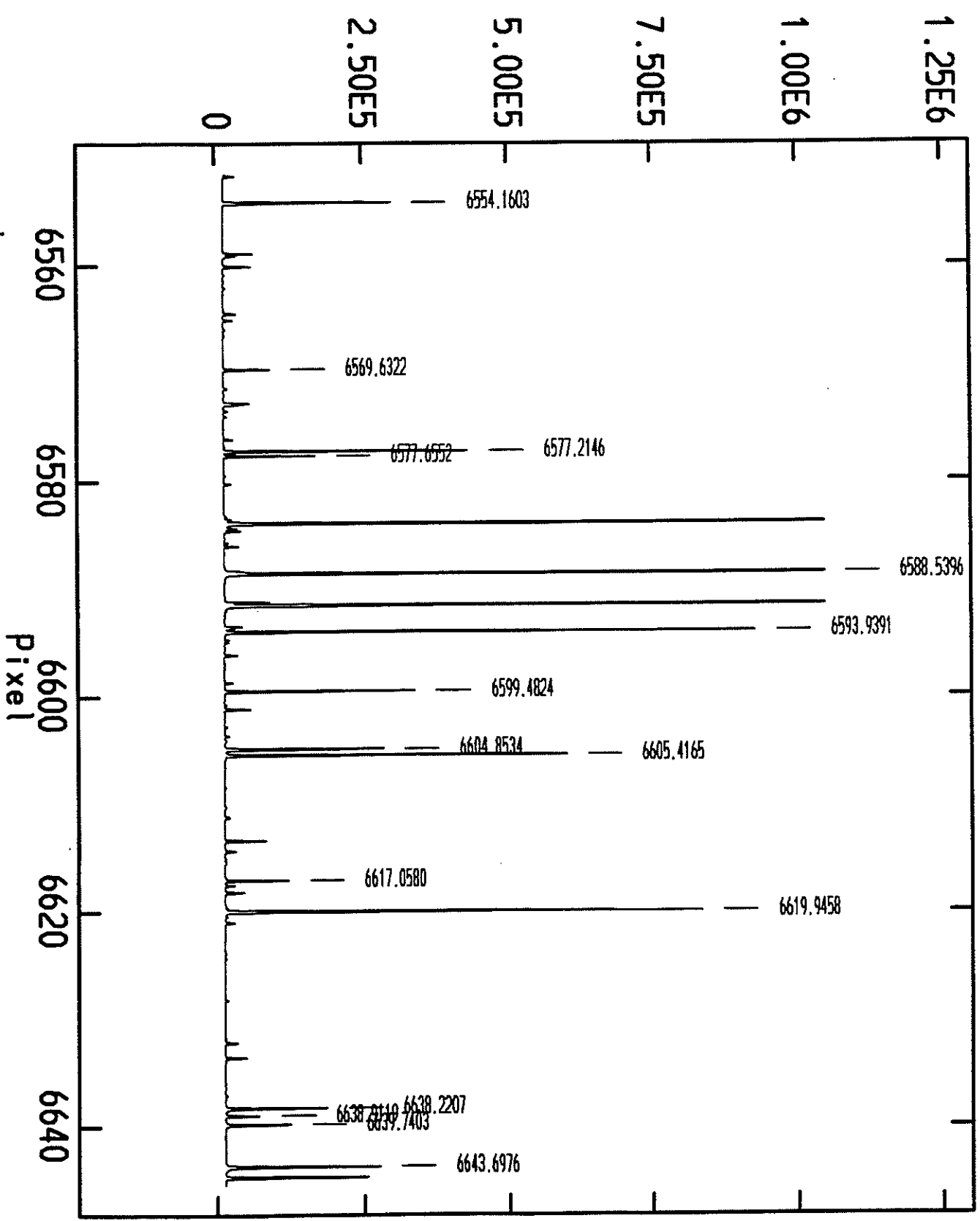
NOAO/IRAF V2.10EXPORT mk@umbra.1~SC.EDU Mon 15:54:55 13-Sep-93
Aperture 32 Image file 32 Order 55
Identify data 0267.ec: hor



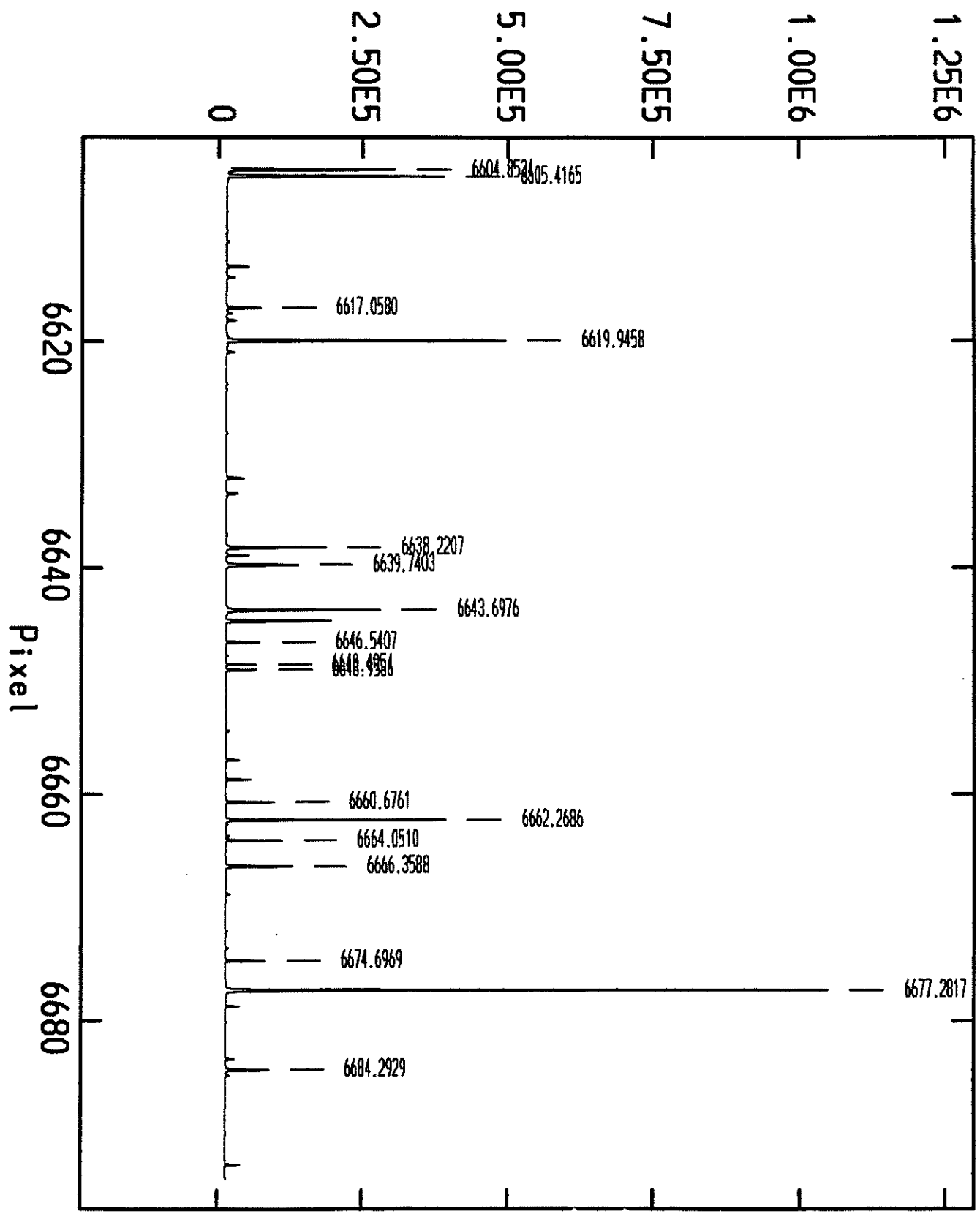
NOAO/IRAF V2.10EXPORT pk@umbra.ucsc.edu Mon 16:20:22 13-Sep-93
Aperture 21 image line 21 Order 55
identify data0271.ec: hor



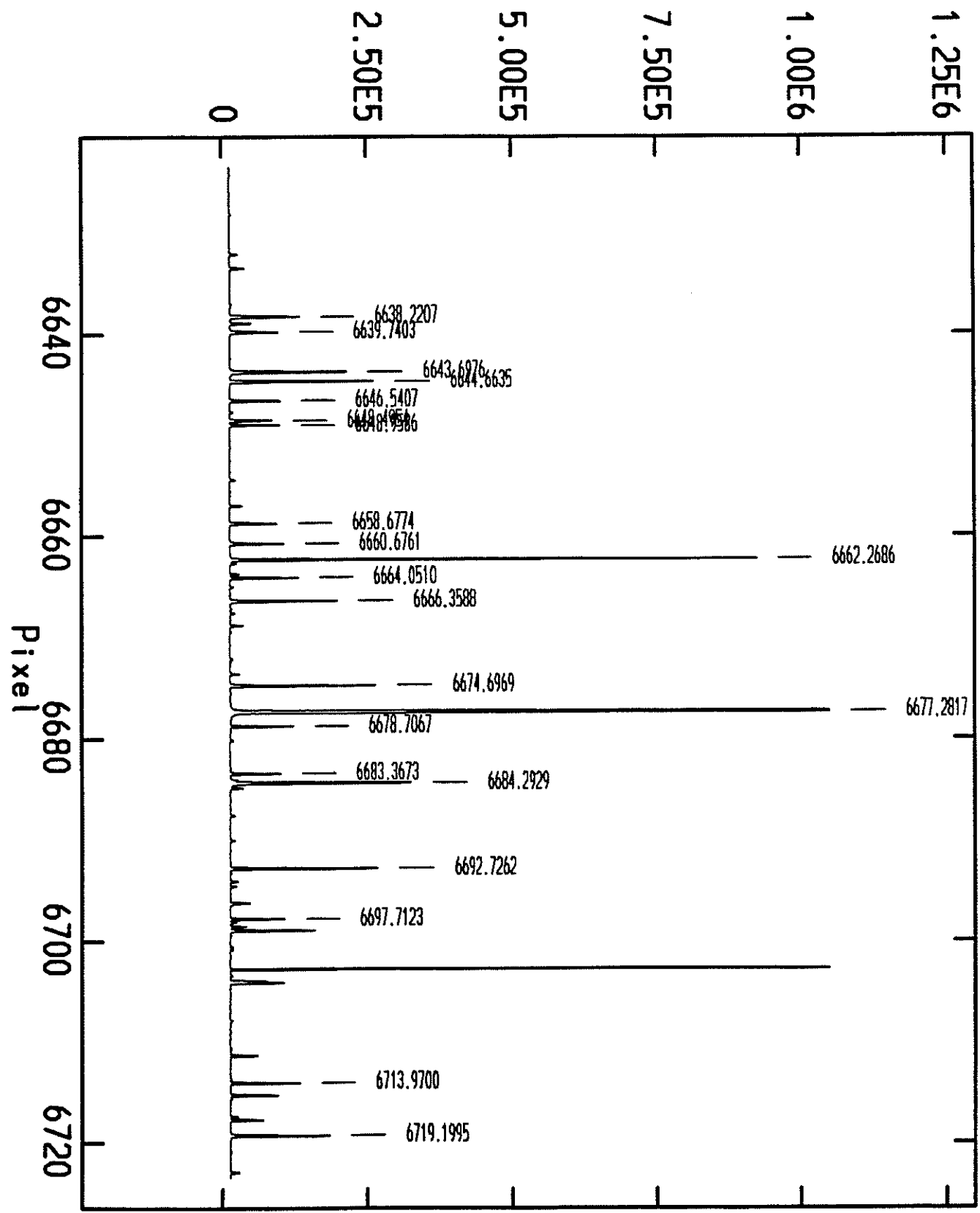
NOAO/IRAF V2.10EXPORT of umbra.1.13SC.EDU Mn 15:59:05 13-Sep-93
Aperture 21 Image 108 21 Order 54
identify data0268.ec: hor



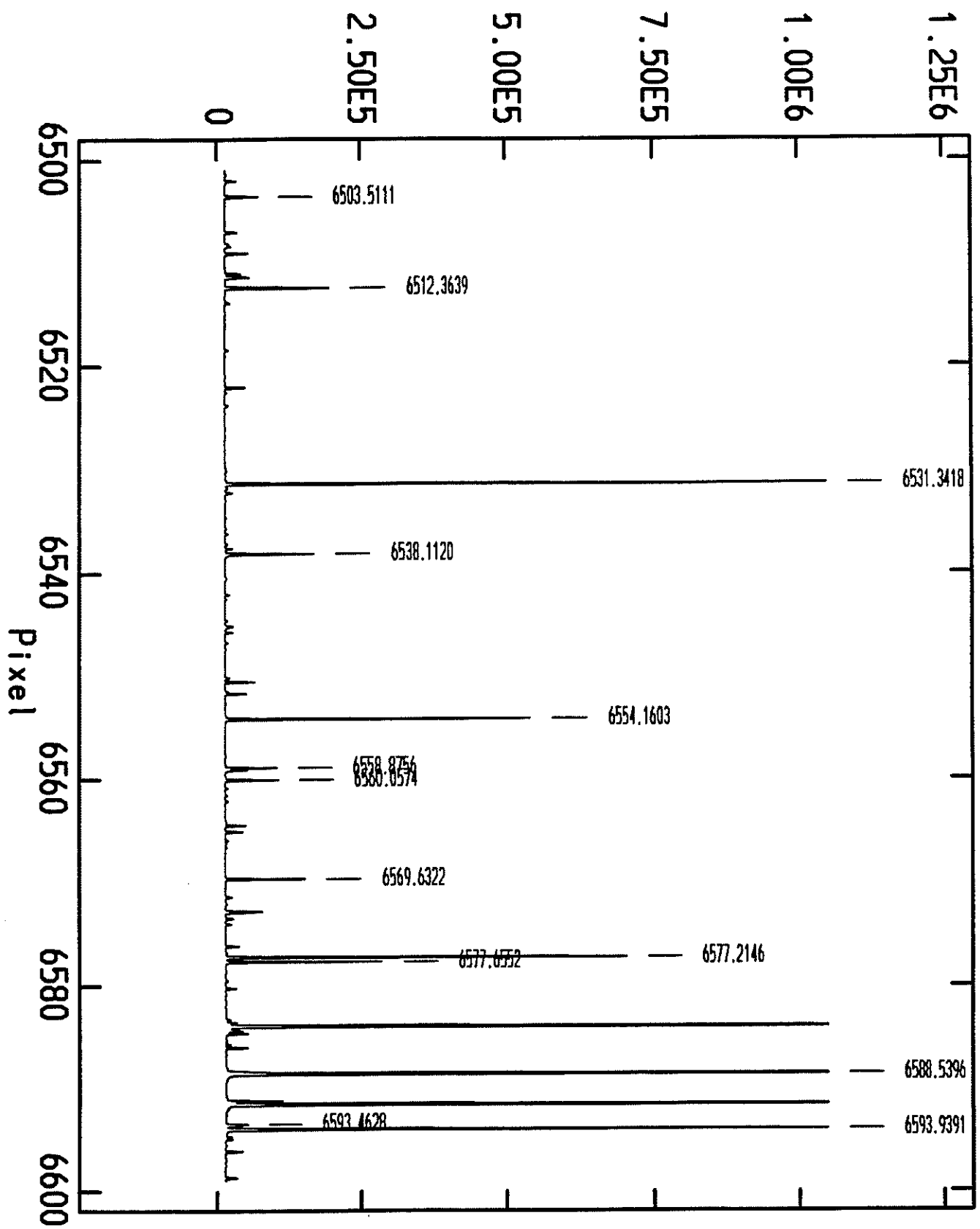
NOAO/IRAF V2.10EXPORT mk@umbra.UCSC.EDU Mon 16:20:26 13-Sep-93
 Aperture 22.1 image file 22. Order 54
 identify data0271.ec: hor



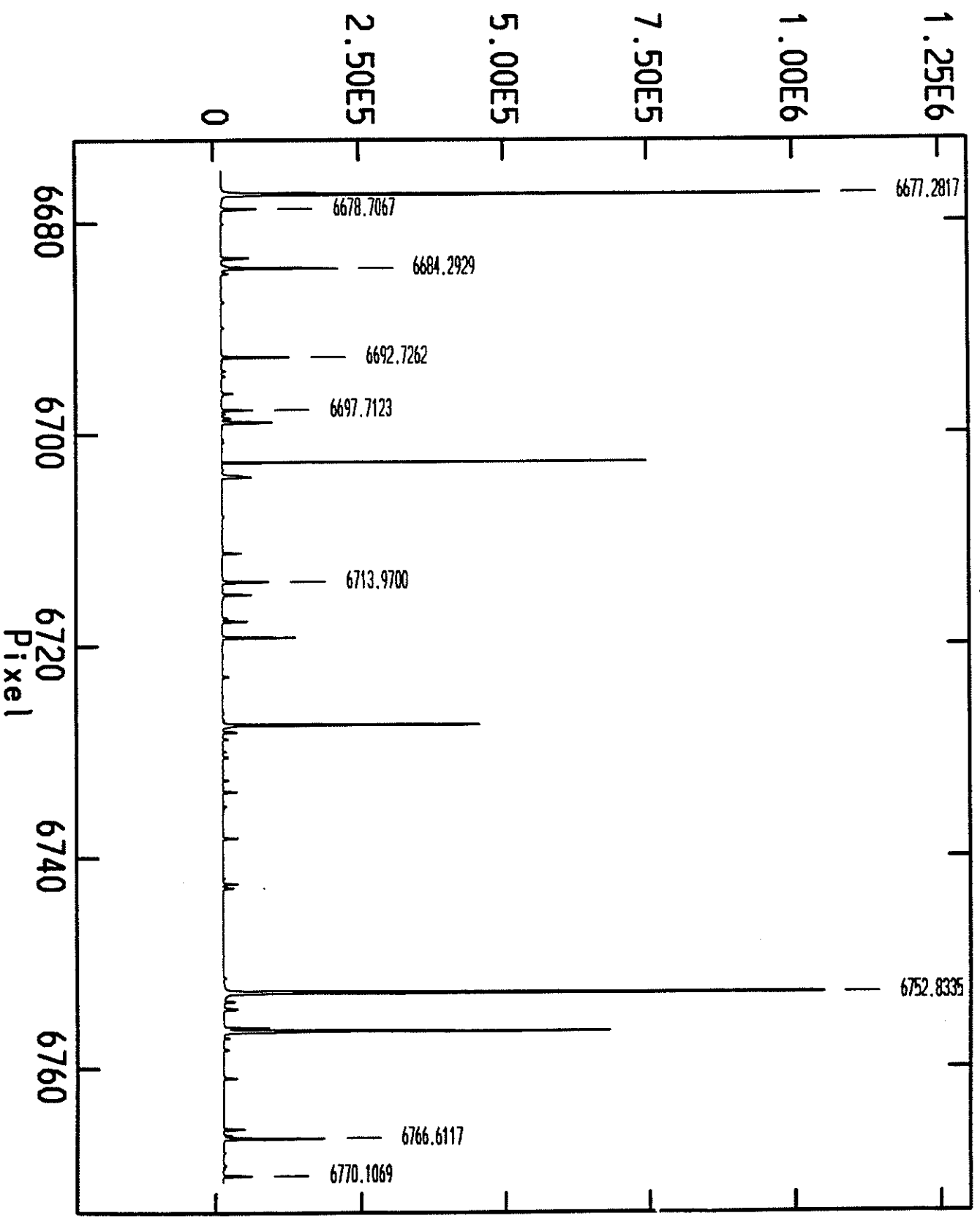
QA0/IRAF V2.10EXPORT mk@umbra.1 SC.EDU Mon 16:24:44 13-Sep-93
 Aperture 22, Image 1, Order 53
 identify data0272.ec: hor



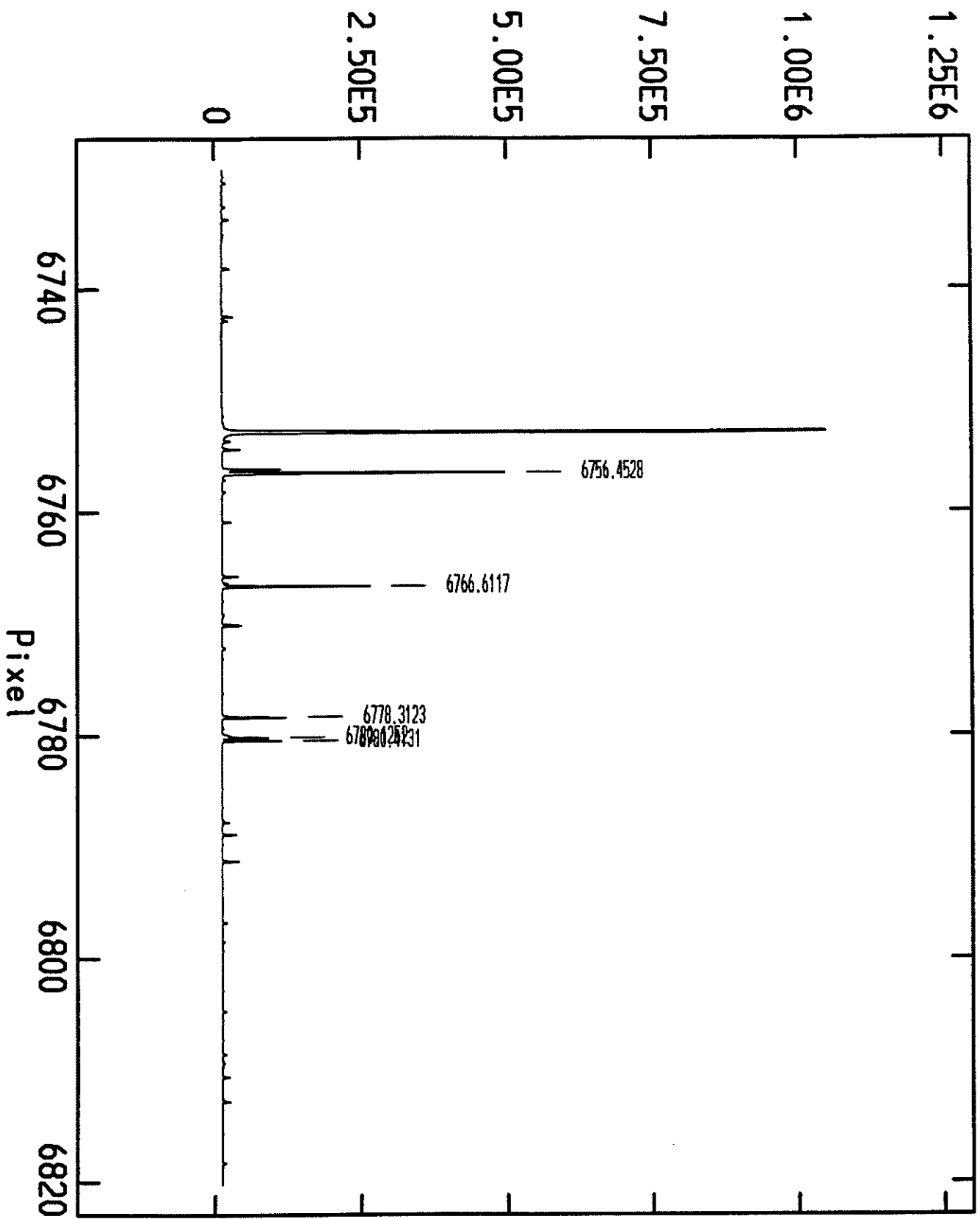
NOAO/IRAF V2.10EXPORT mkoumbra.ucsc.edu Mon 16:24:40 13-Sep-93
Aperture 21 Image 119 Order 54
Identify data 0272.ec: hor



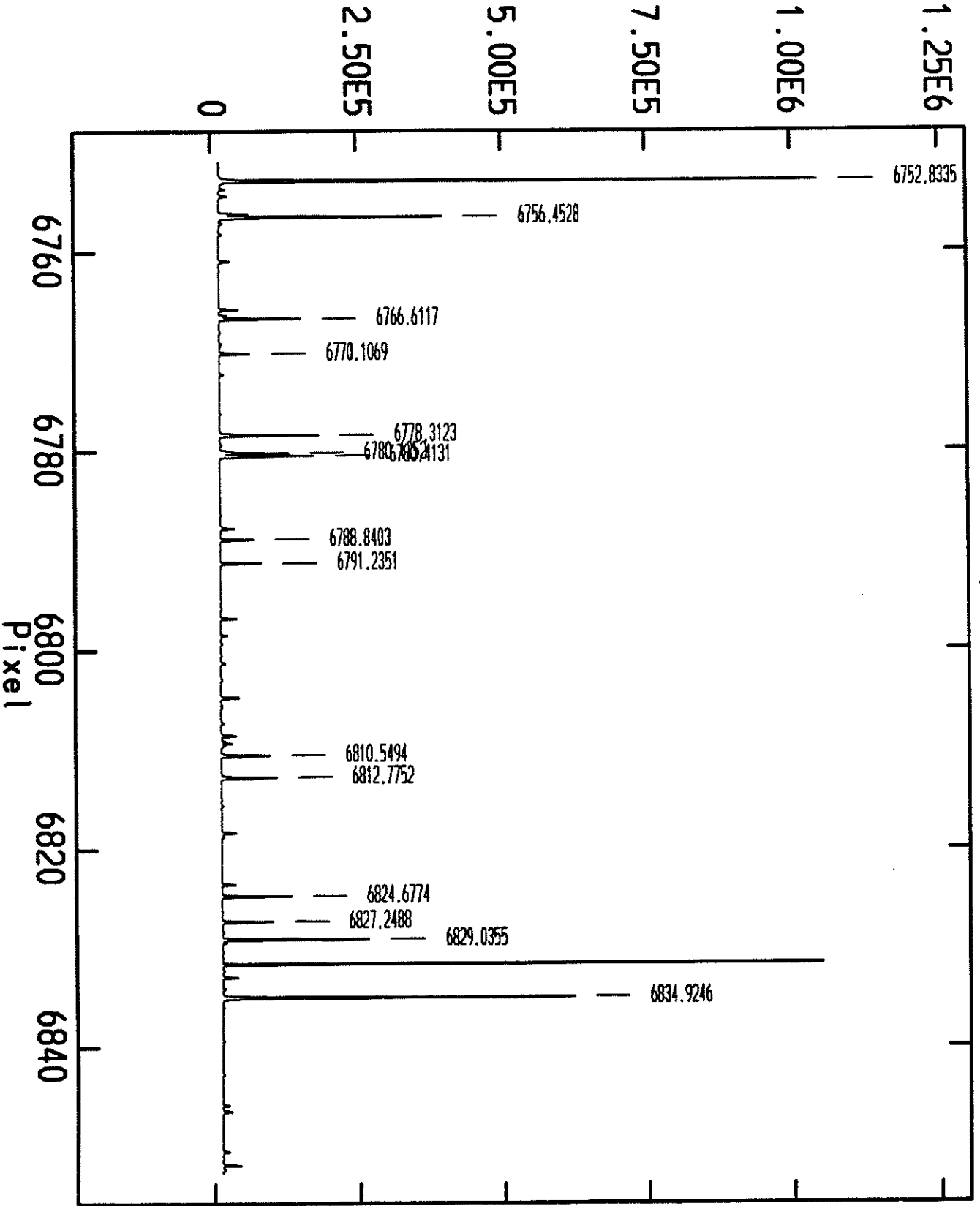
NOAO/IRAF V2.10EXPORT of Coumbra 'CSC.EDU Mgn 15:59:17 13-Sep-93
Aperture 22. Image file 0288.ec: hor
Identify data0288.ec:

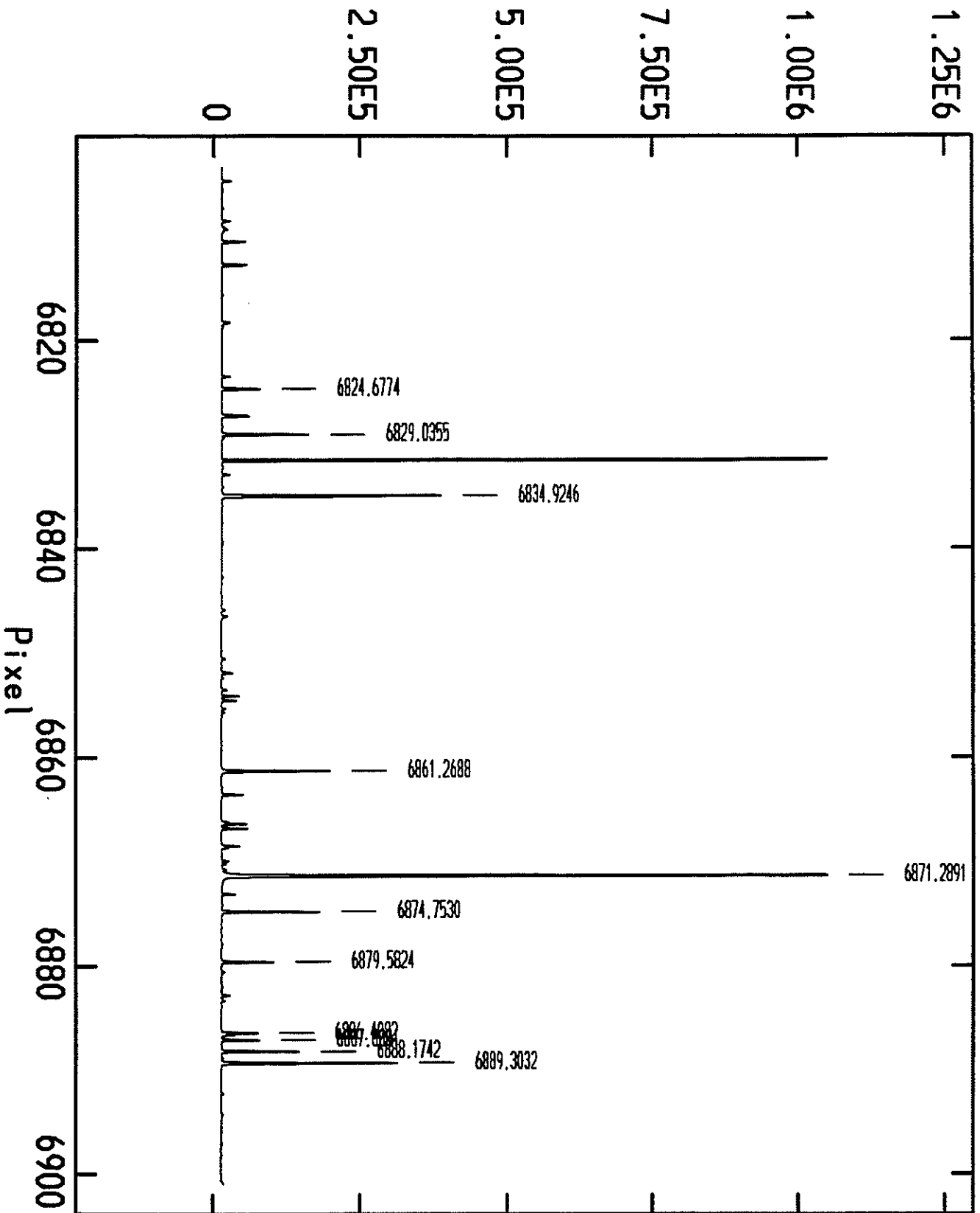


NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:29:31 13-Sep-93
Aperture 23 Image Line 23, Order 53
Identify data0271.ec: hor

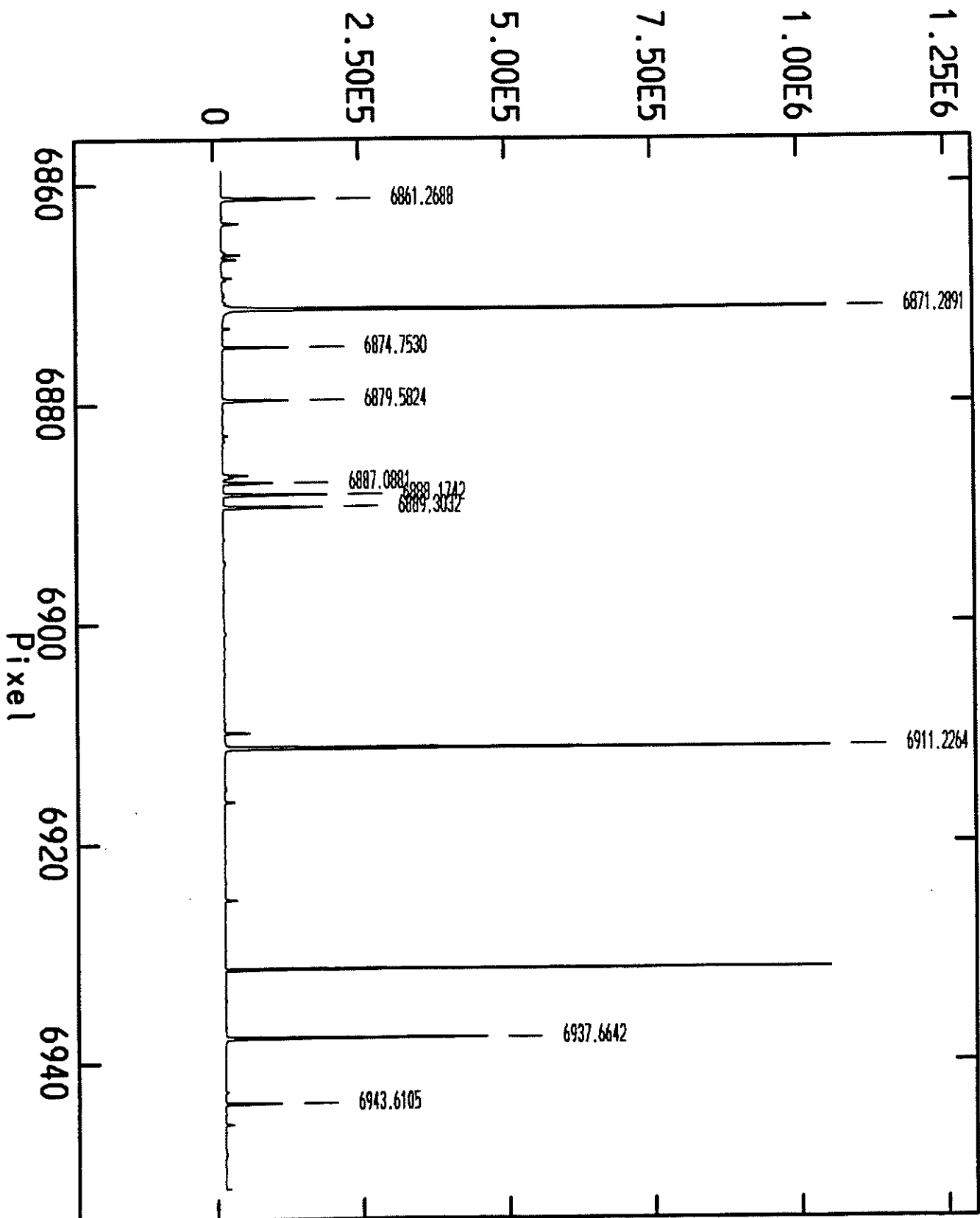


NOAO/IRAF V2.10EXPORT mk_euobra. "SSC.EDU Mn 16:24:49 13-Sep-93
Aperture 23 Image file 23, Order 52
Identify data 02/2.ec: hor

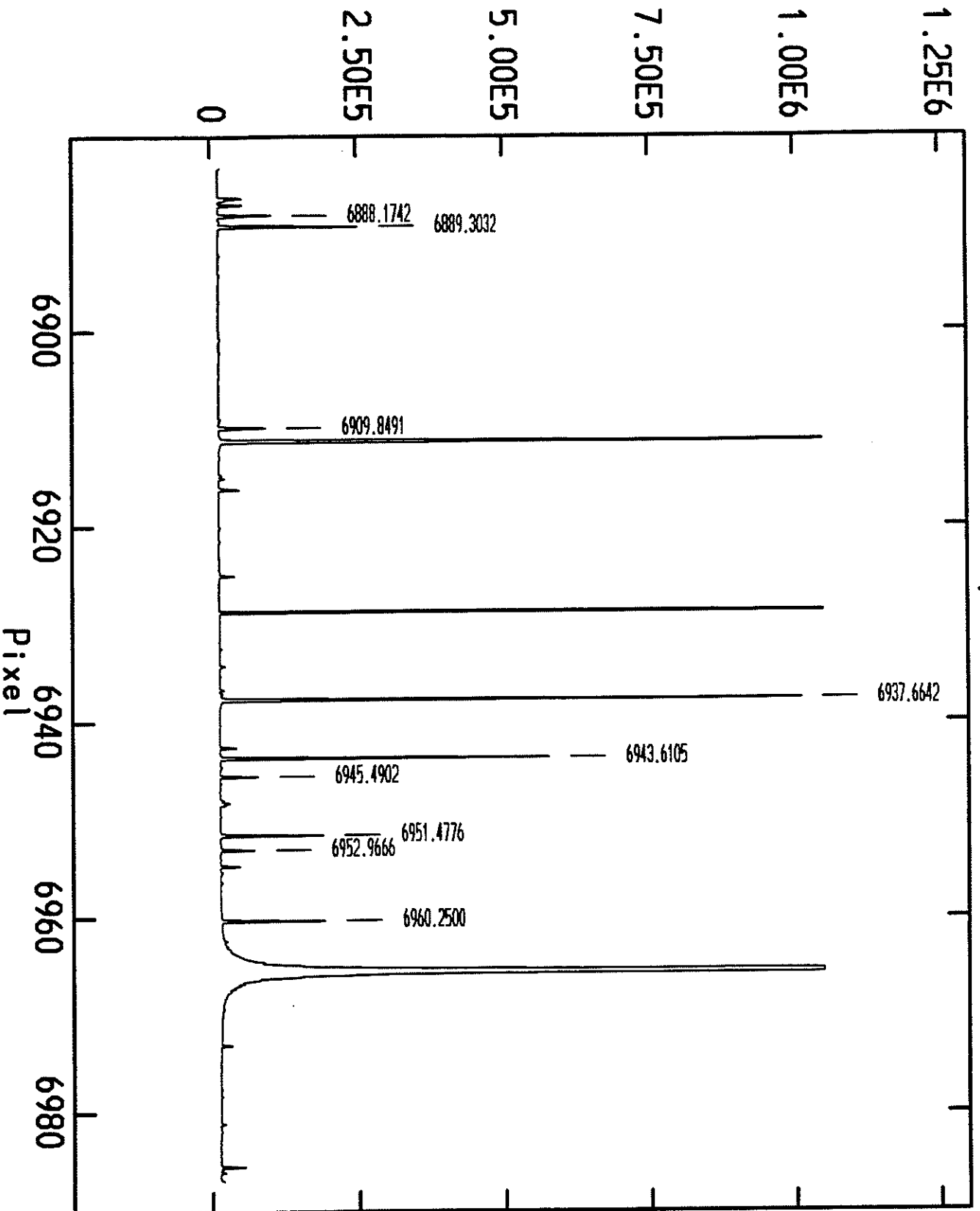




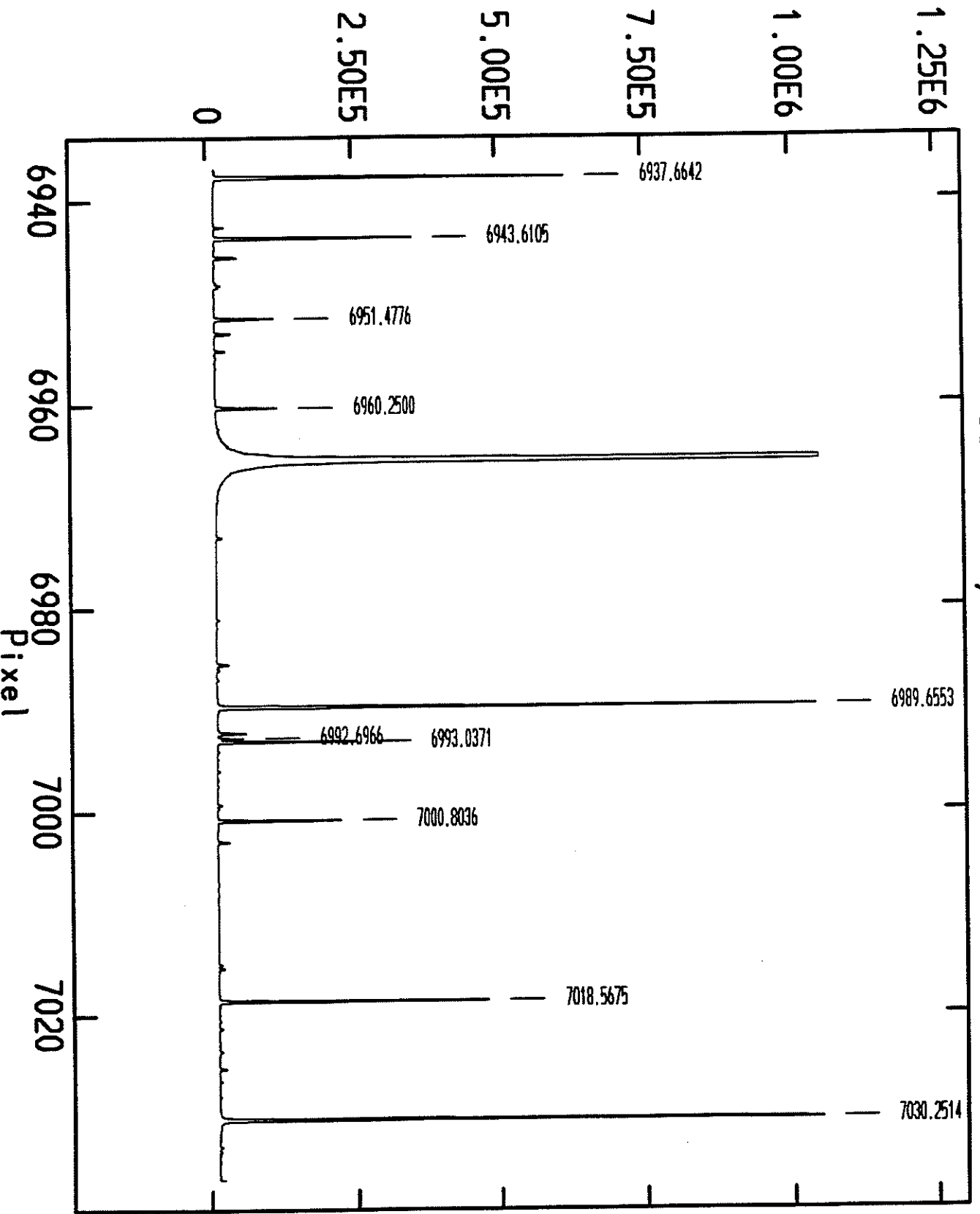
IDA0/IRAF V2.10EXPORT of umbra: SC.EDU Mn 16:29:35 13-Sep-93
Aperture 24 Image file 24, Order 52
Identify data 0271.ec: hor



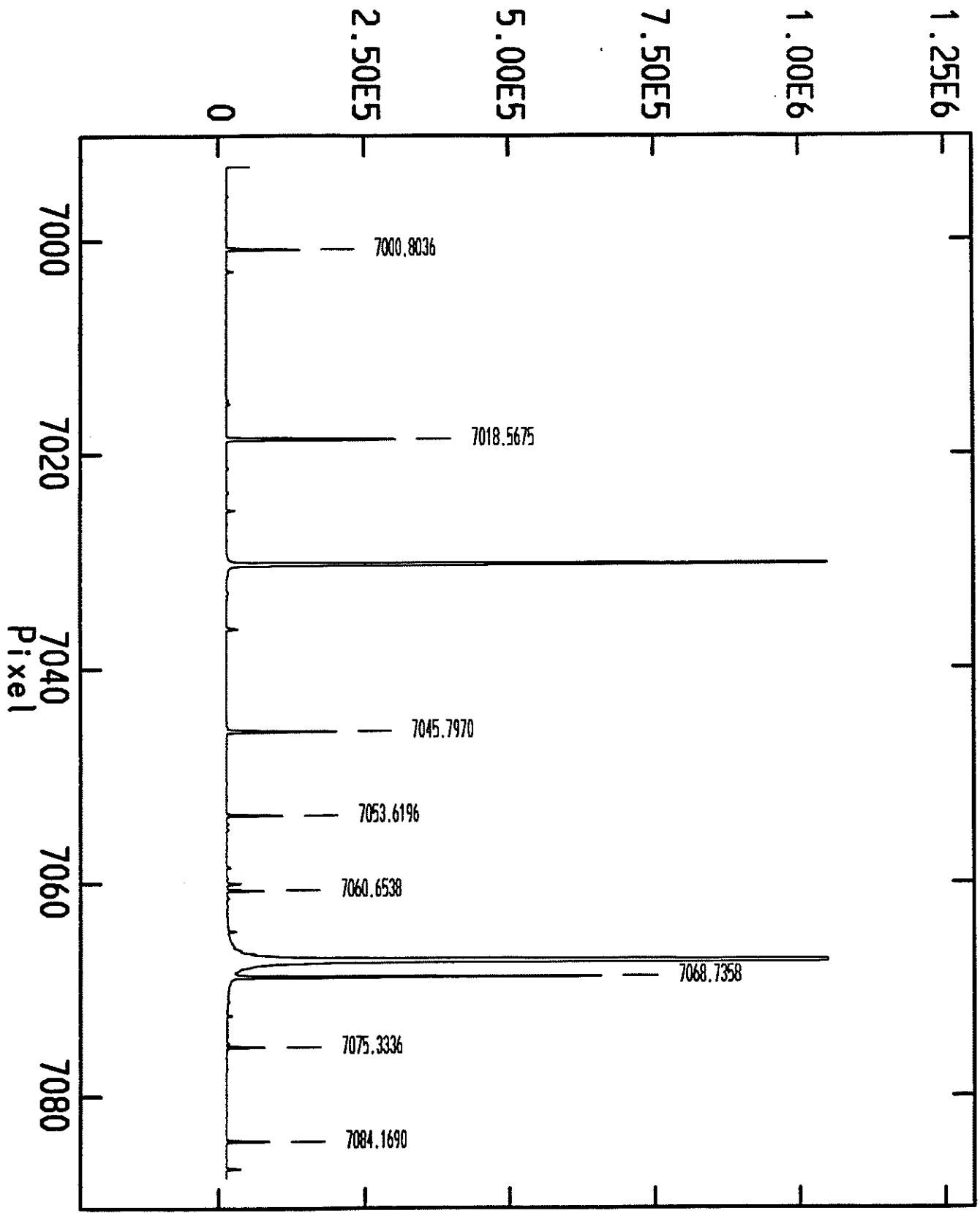
NOAO/IRAF V2.10EXPORT mk_euobra.UCSC.EDU Mgn 16:24:53 13-Sep-93
Aperture 24 Image file 24 Order 51
Identify data 02/2.ec: hor



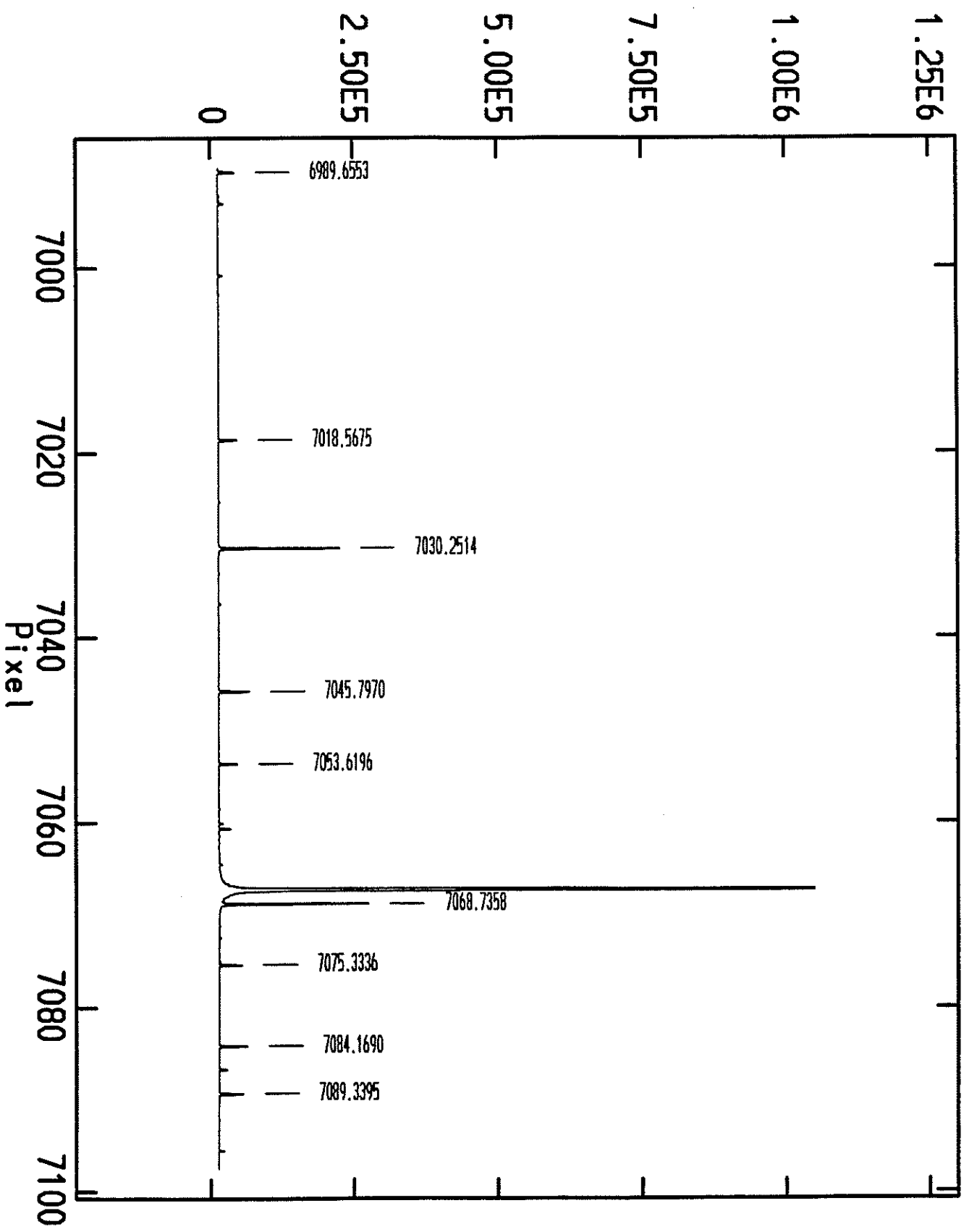
JAO/IRAF V2.10EXPORT mk@umbra.UCC.EDU Mon 15:59:27 13-Sep-93
Aperture 24 Image file 24 Order 51
Identify data 0268.ec: hor



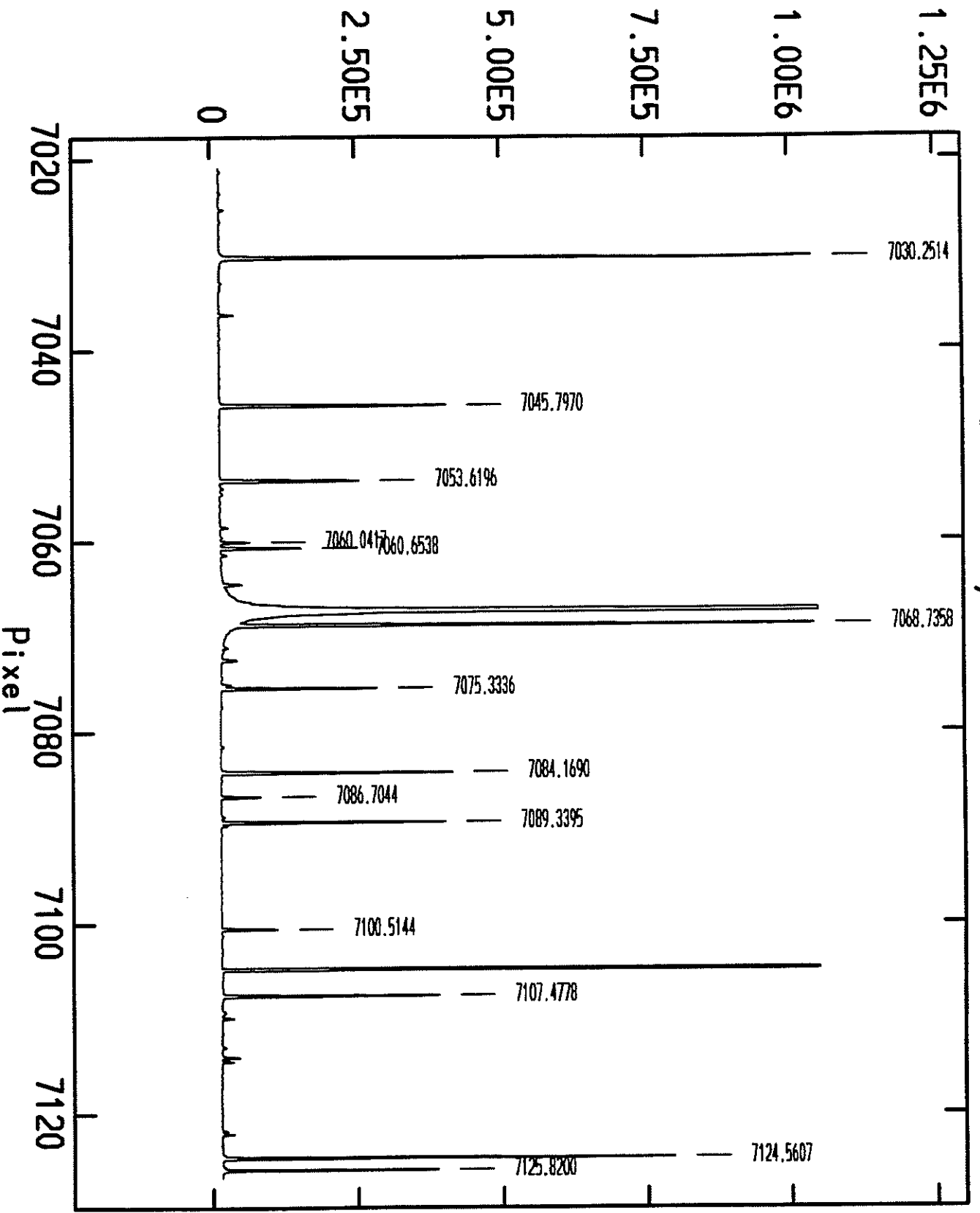
NGAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:29:39 13-Sep-93
Aperture 25 Image file 25 Order 51
Identify data0271.ec: hor



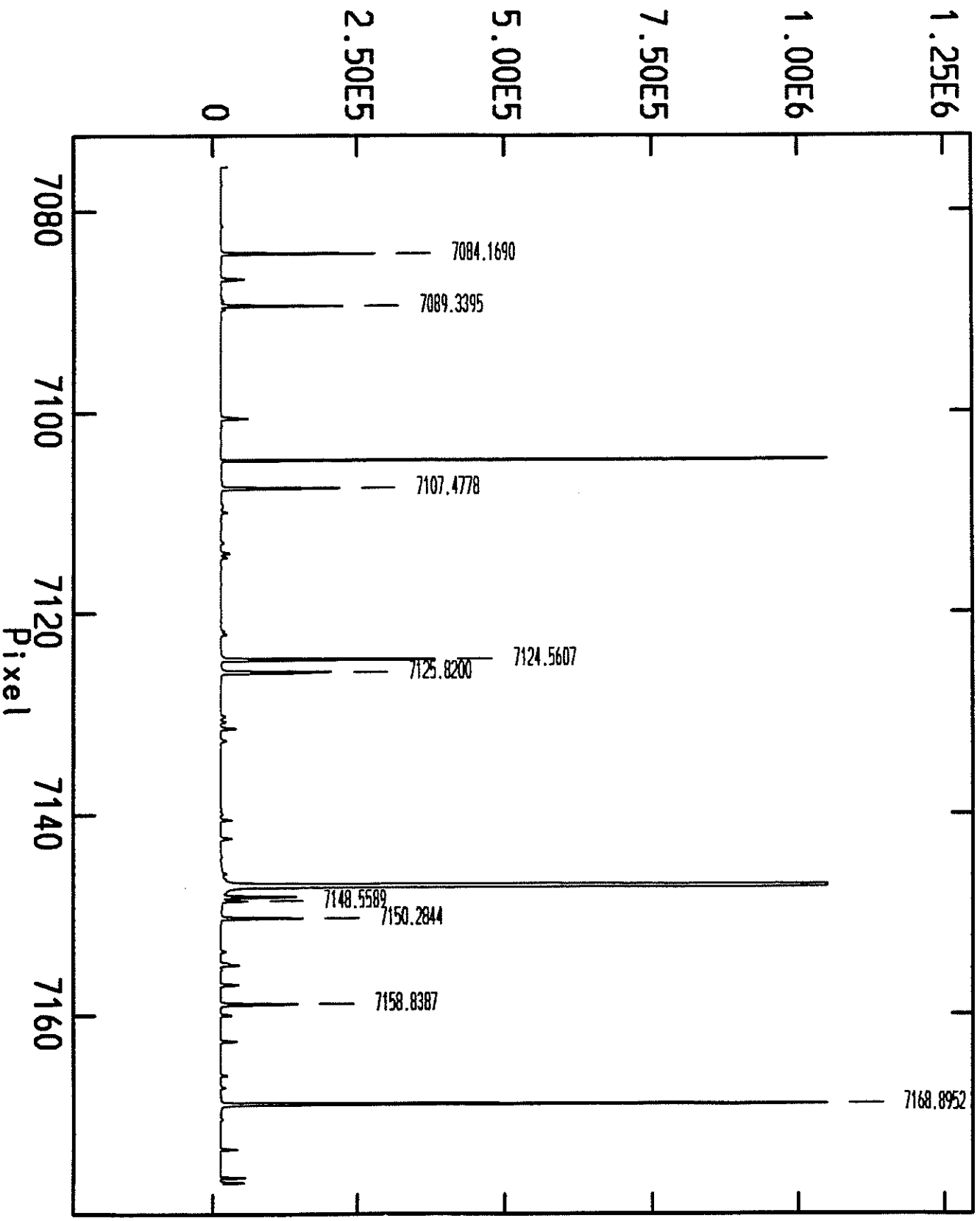
QA0/IRAF V2.10EXPORT mk@umbra.lsc.edu Mon 16:29:37 13-Sep-93
Aperture Image v198 / Order 50
identify data0279.ec: hor



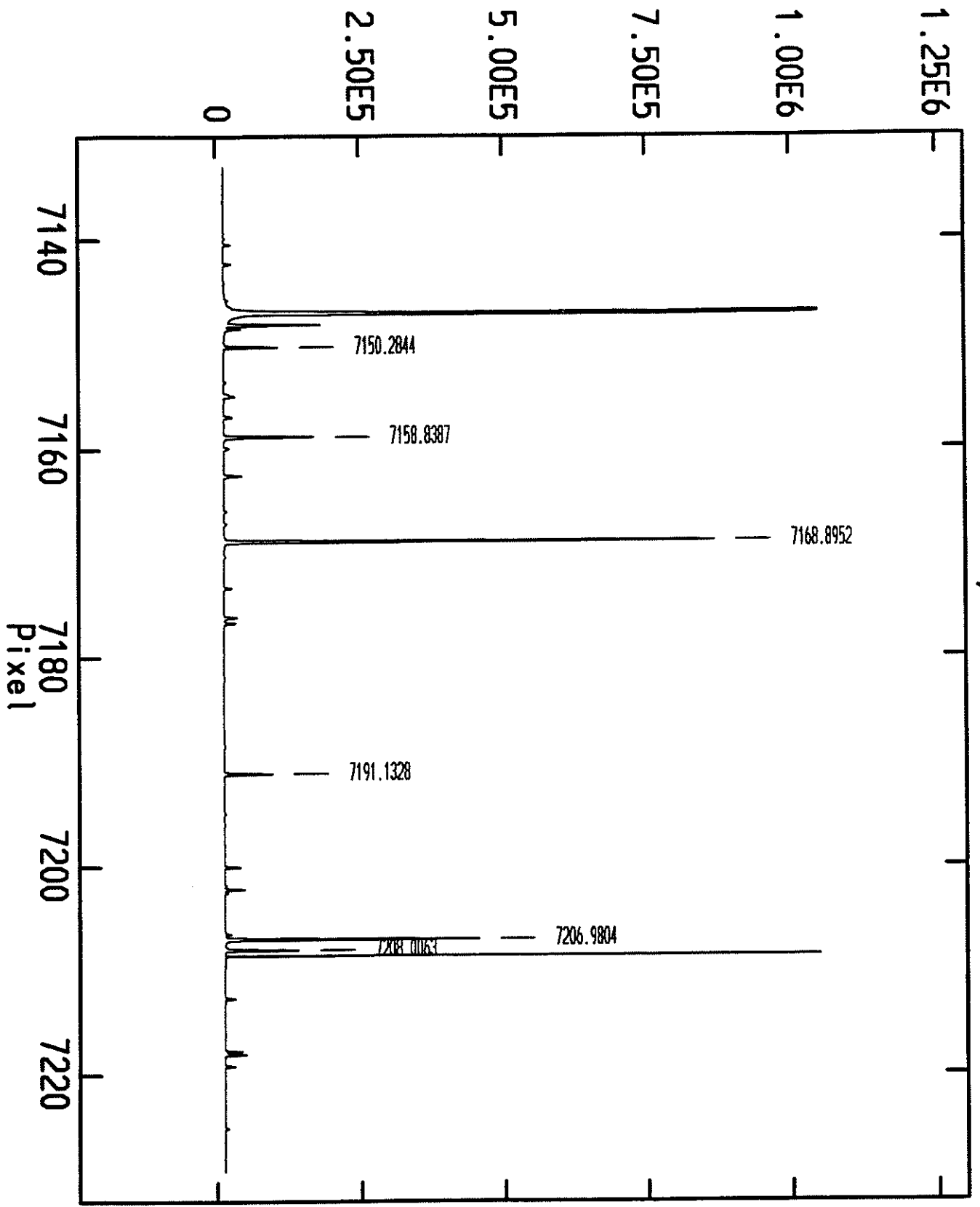
NOAO/IRAF V2.10EXPORT μ kybra UCSC.EDU Mon 16:24:59 13-Sep-93
Aperture 25 Image 1198 Order 50
Identify data 0272.ec: hor



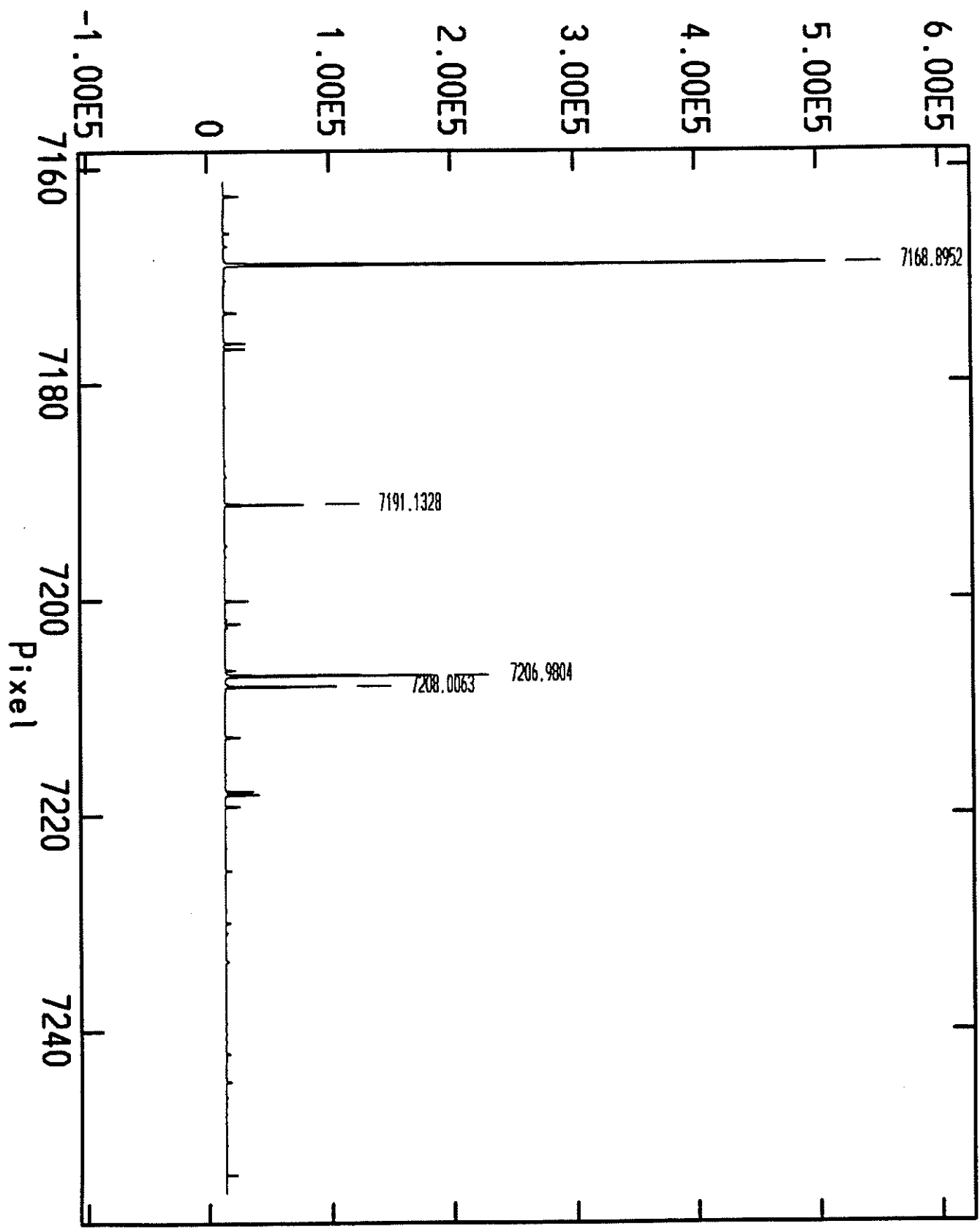
NOAO/IRAF V2.10EXPORT pk@umbra. CSC.EDU Mon 15:59:33 13-Sep-93
Aperture 25, Image File 1108, Order 50
Identify data 0268.ec: hor



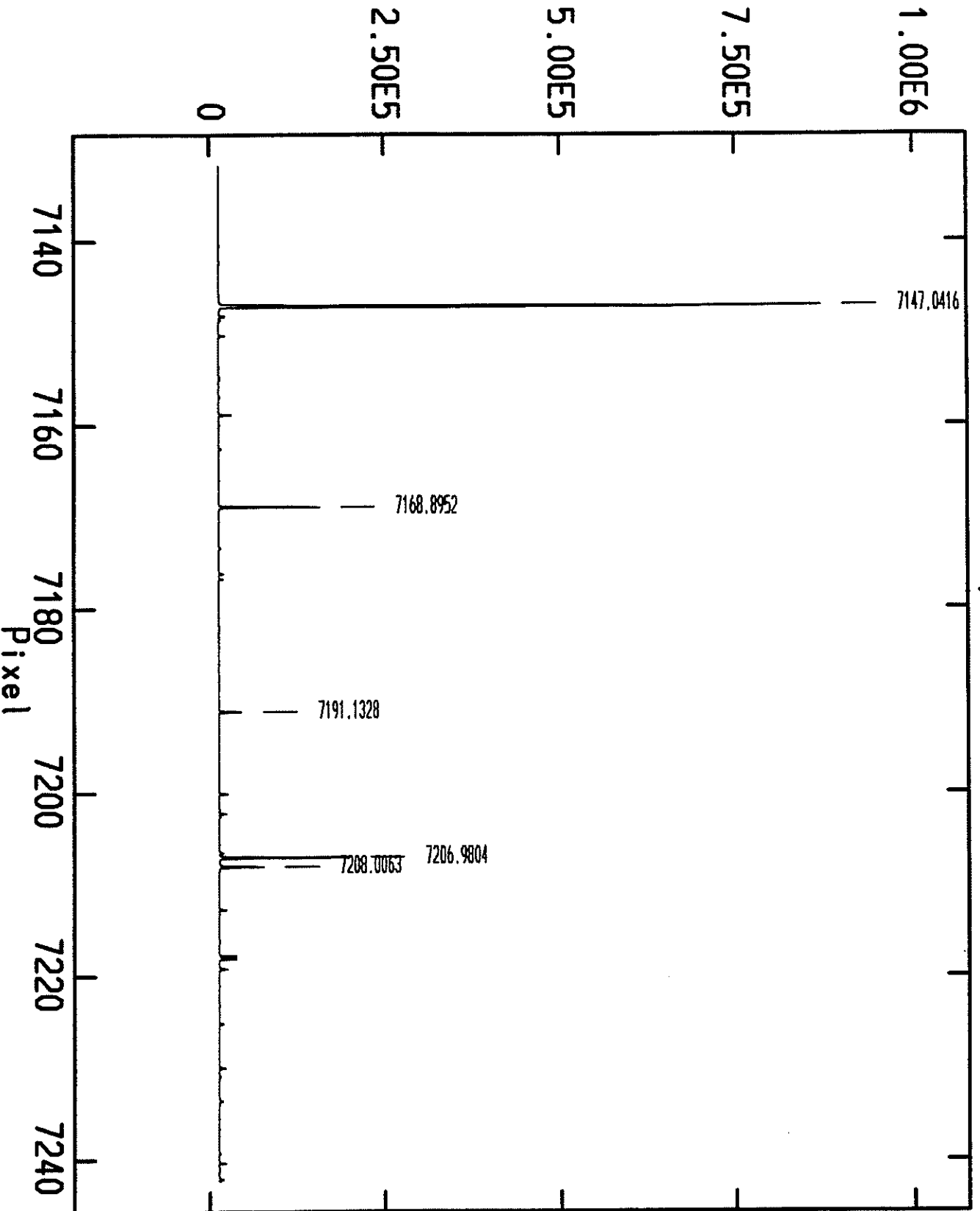
NOAO/IRAF V2.10EXPORT of eumbra.UCSC.EDU Mon 16:28:44 13-Sep-93
Aperture 26, Image file 26, Order 50
identify data0271.ec: hor



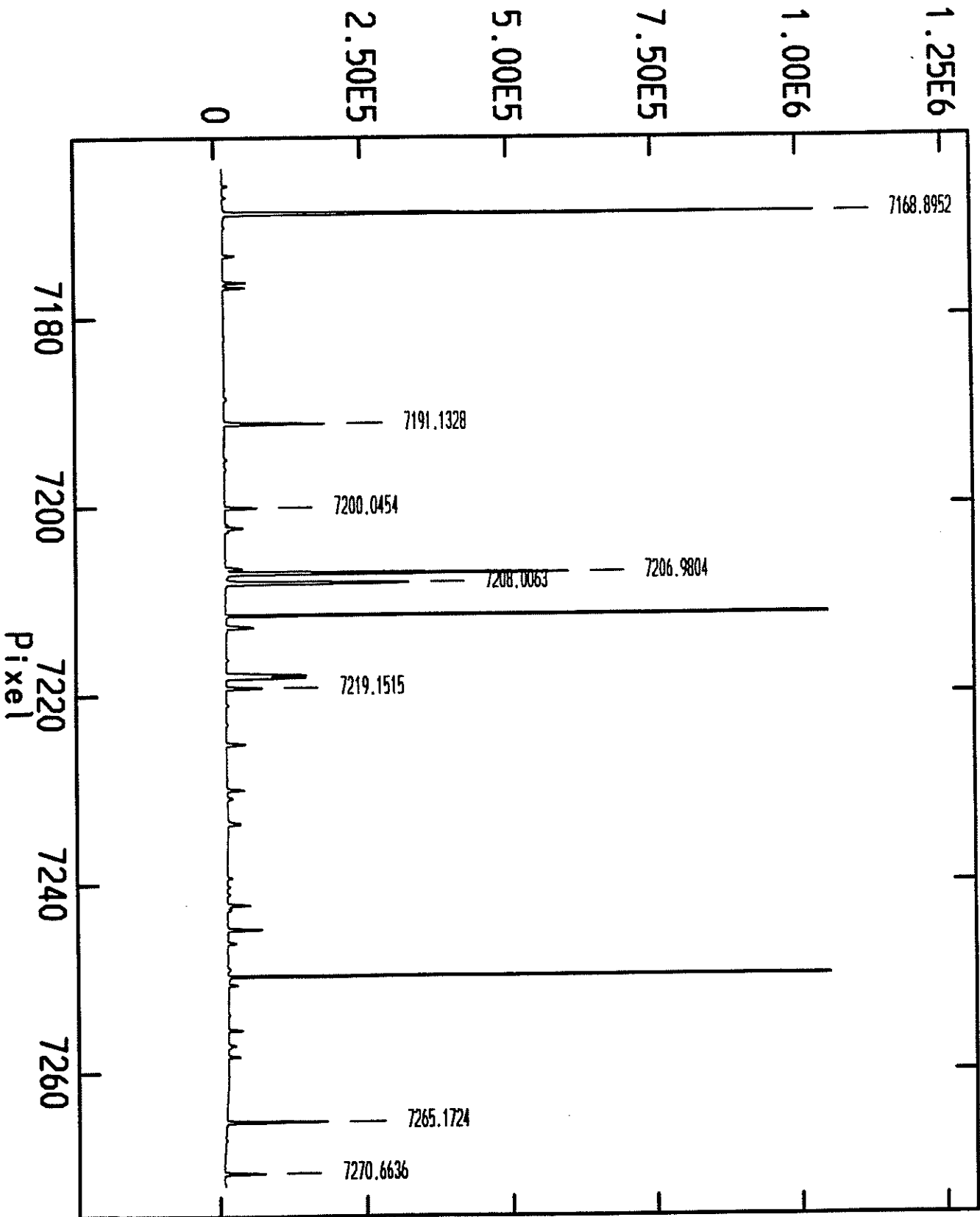
DAO/IRAF V2.10EXPORT mk@umbra.lsc.edu Mon 16:26:56 13-Sep-93
Aperture Image Line Order 50
Identify data 0276.ec: hor

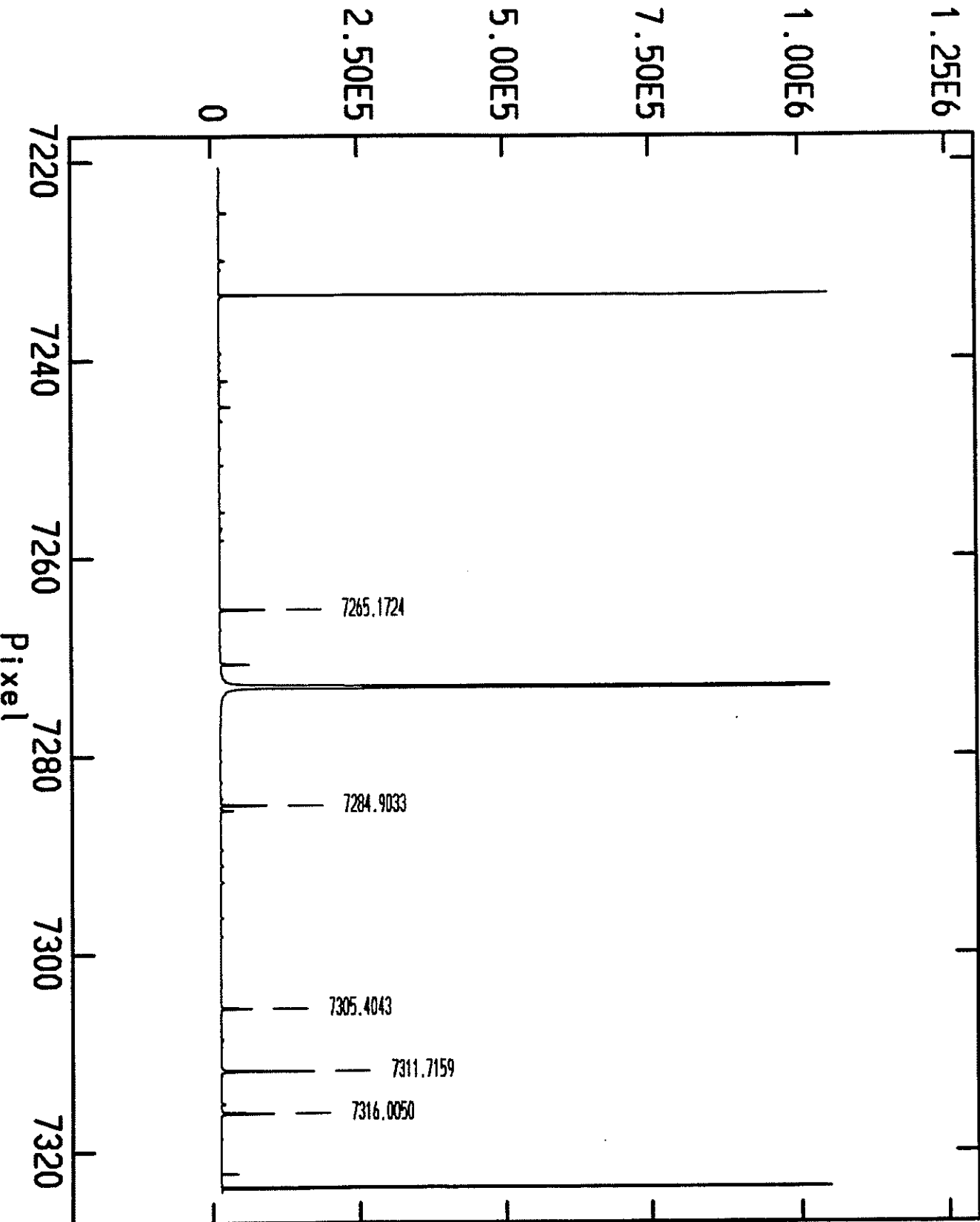


NOAO/IRAF V2.10EXPORT mk@umbr. UCSC.EDU Mon 16:29:42 13-Sep-93
Aperture Image Line Order
identify data0279.ec: hor

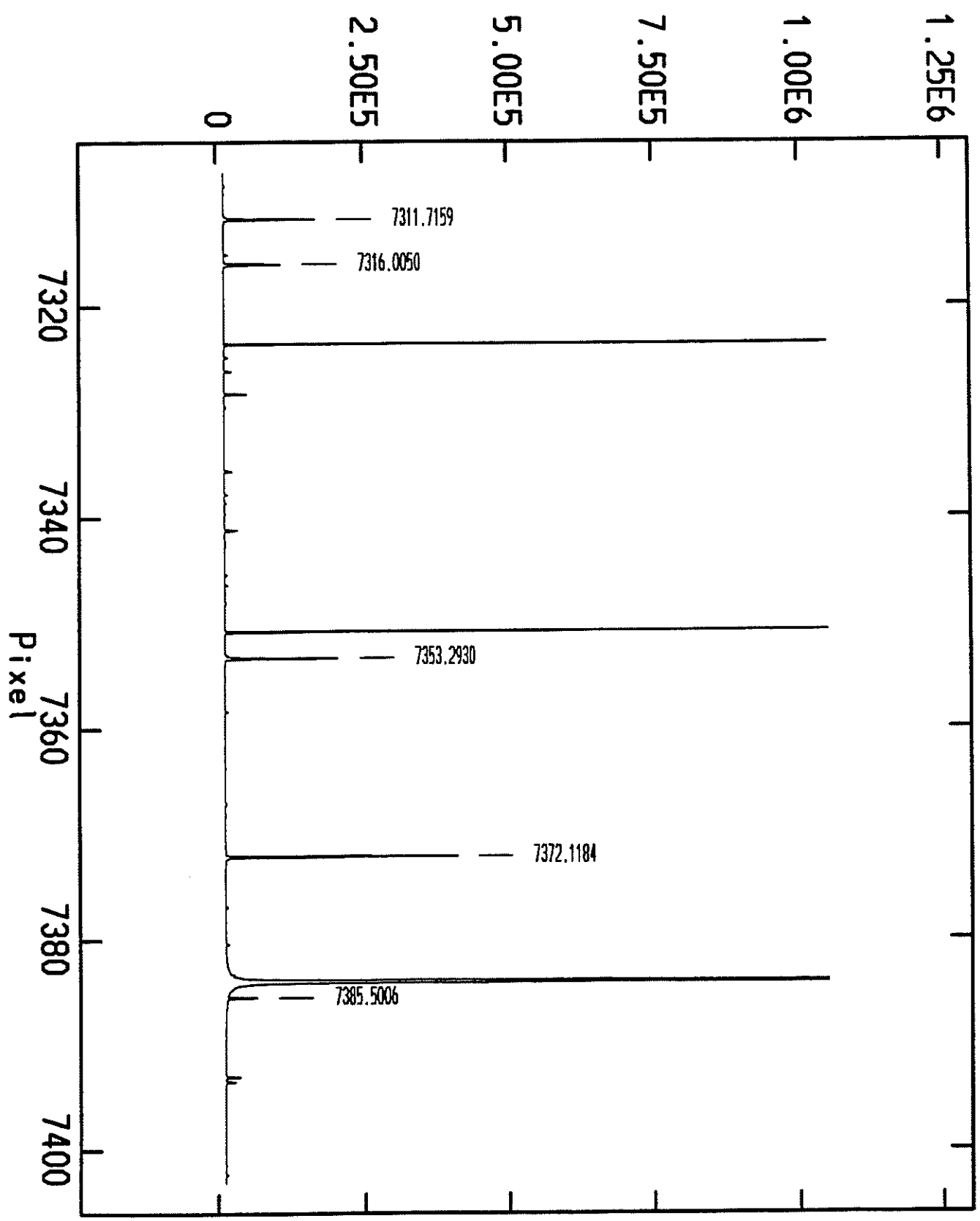


DAO/IRAF V2.10EXPORT mk@umbra.LSC.EDU Mon 16:25:03 13-Sep-93
Aperture 26, Image 1, Order 49
Identify data 0272.ec: hor

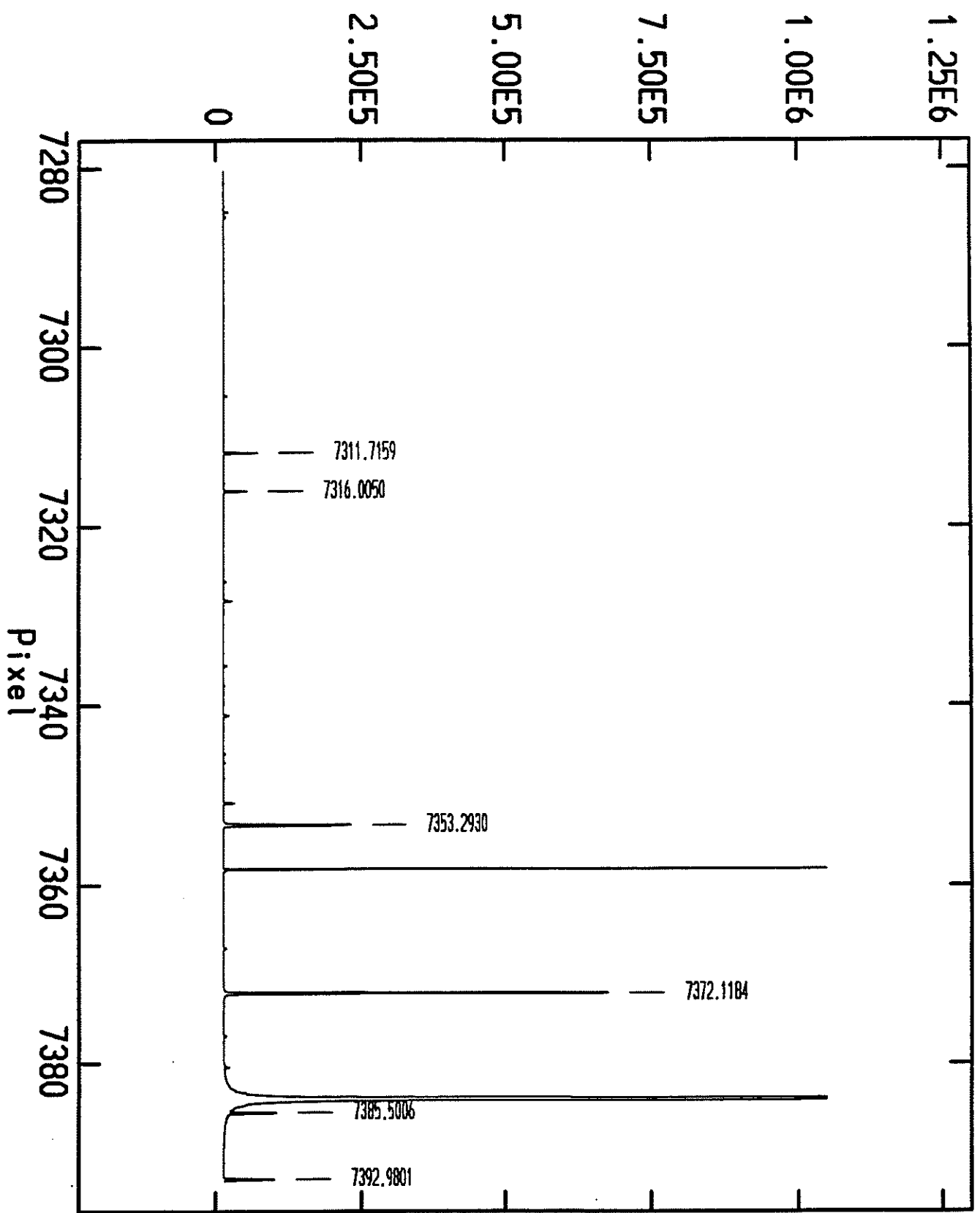




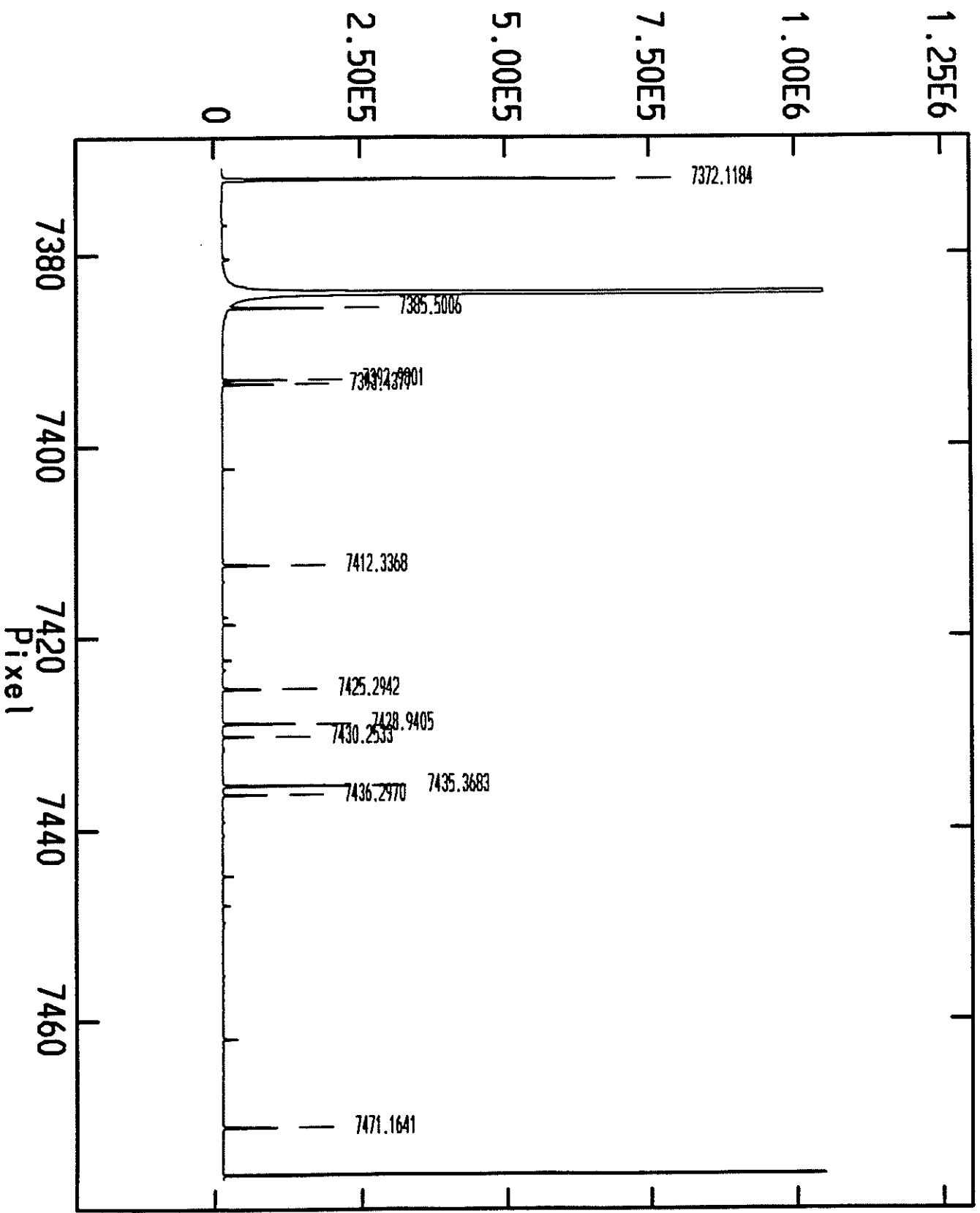
NOAO/IRAF V2.10EXPORT keumbra 'CSC:EDU Mn 16:27:08 13-Sep-93
Aperture 10 Image Line 10 Order 49
identify data0276.ec: hor



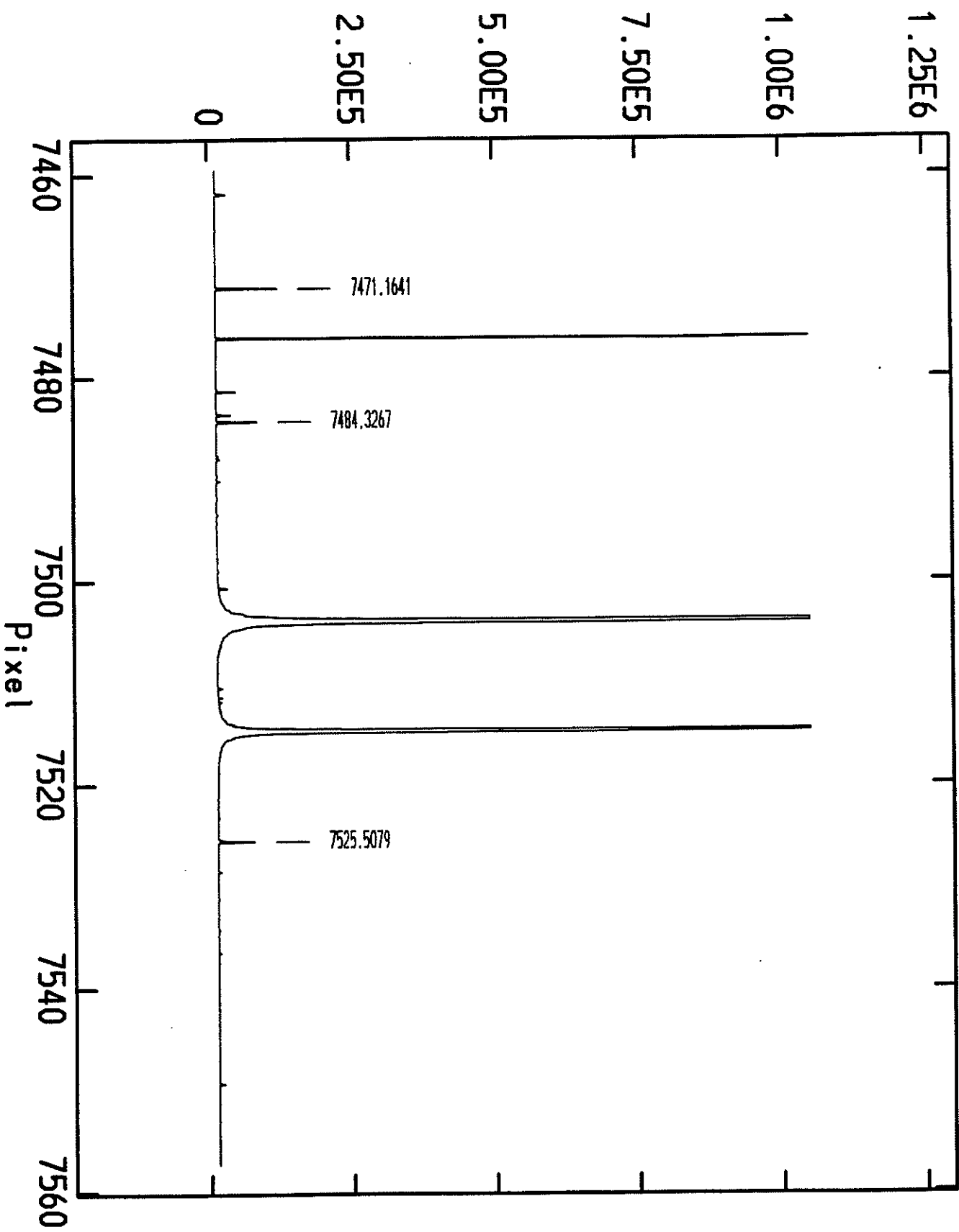
NOAO/IRAF V2.10EXPQRT mk_eumbra UCSC.EDU Mon 16:29:47 13-Sep-93
Aperture image file: Order 48
identify data0279.ec: hor



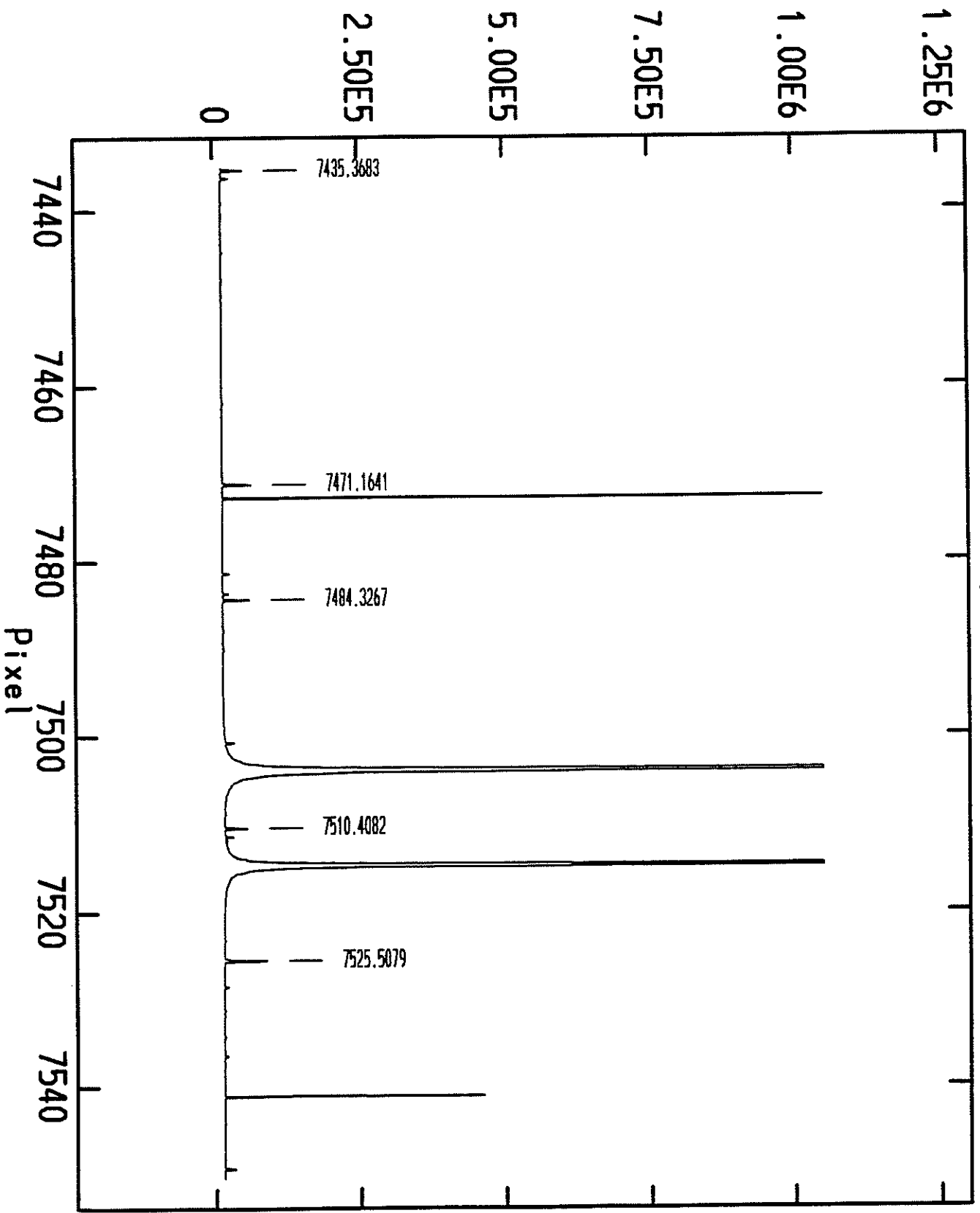
QA0/IRAF V2.10EXPORT keubbra.17SC.EDU Mgn.16:05:45 13-Sep-93
Aperture 10 Image 10 Order 48
eident: fy data 0275.ec: hor

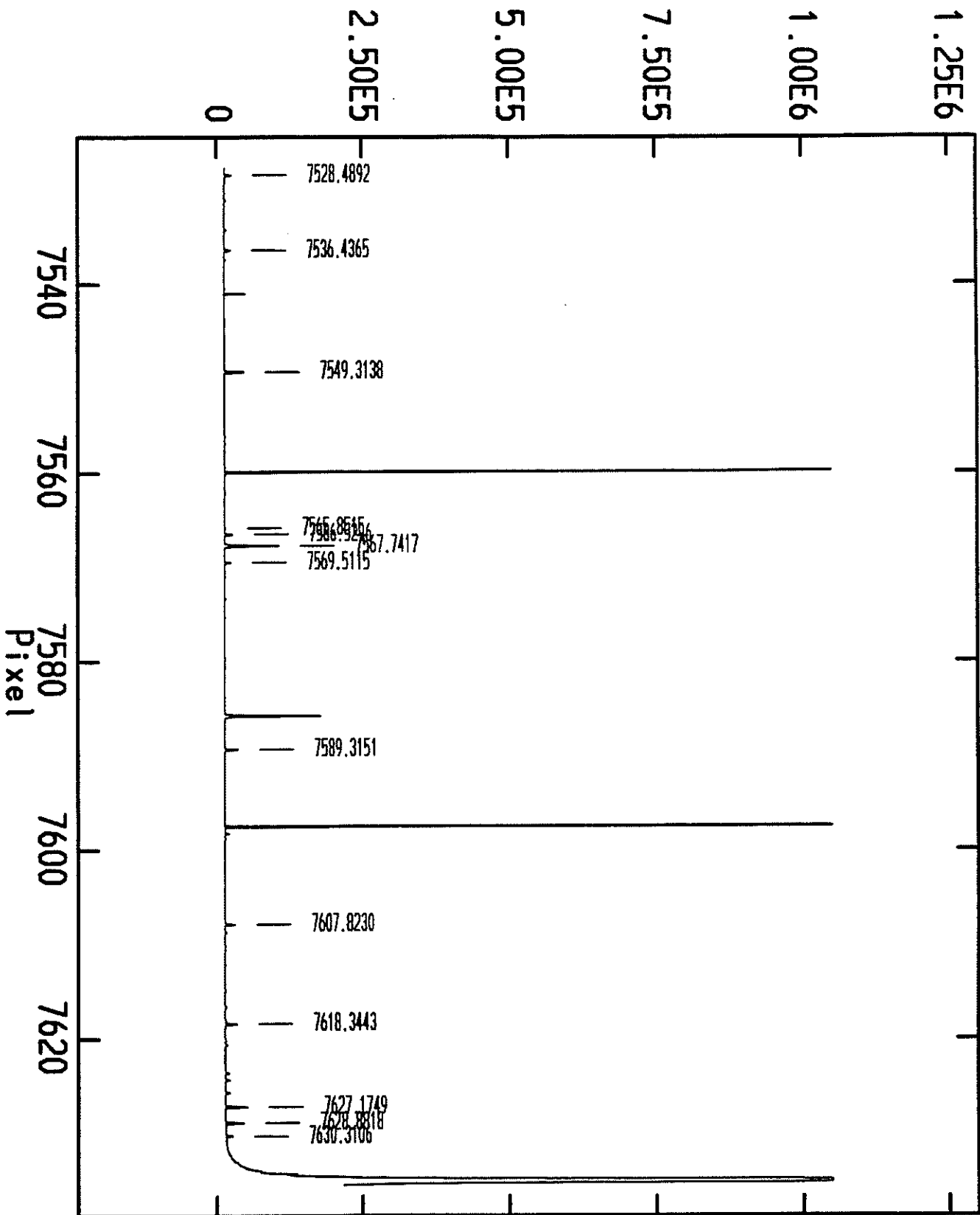


NOAO/IRAF V2.10EXPORT mk_eumbra UCSC.EDU Mgn 16:27:13 13-Sep-93
Aperture Image Line Order 48
identify data0276.ec: hor

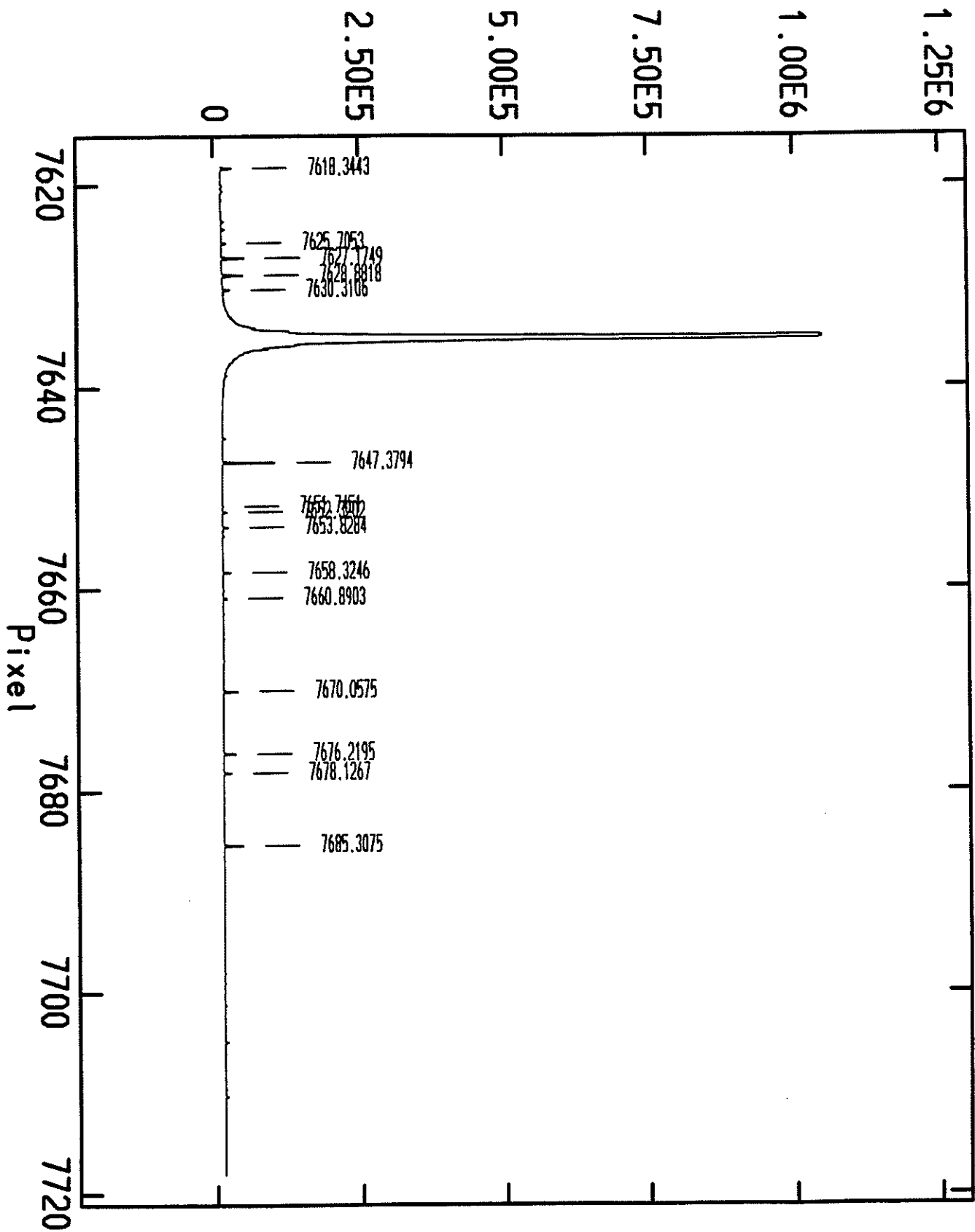


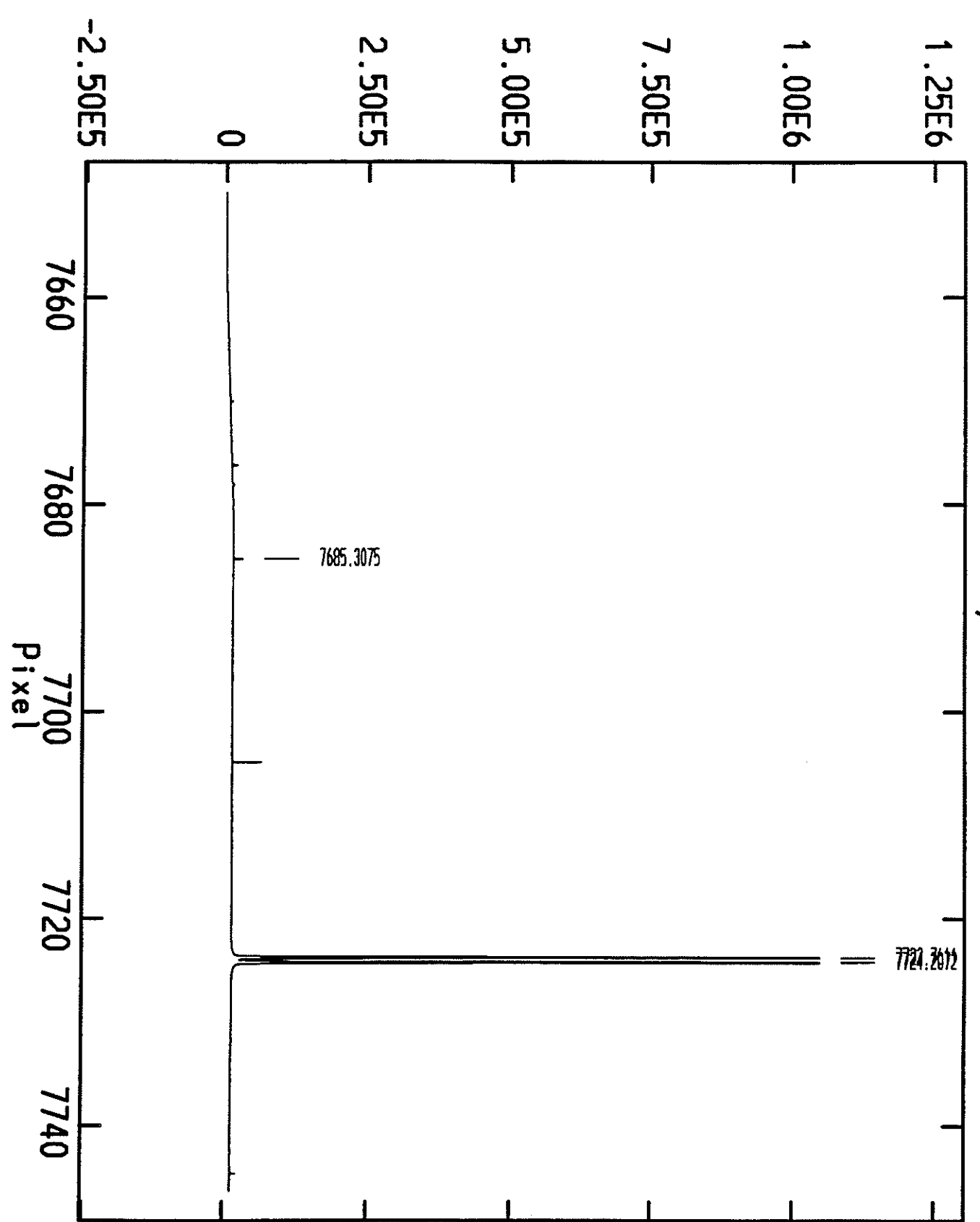
QA0/IRAF V2.10EXPORT k@umbra.l' SC:EDU Mn 16:29:50 13-Sep-93
Aperture 10, Image 10, Order 4
identify data0279.ec: hor



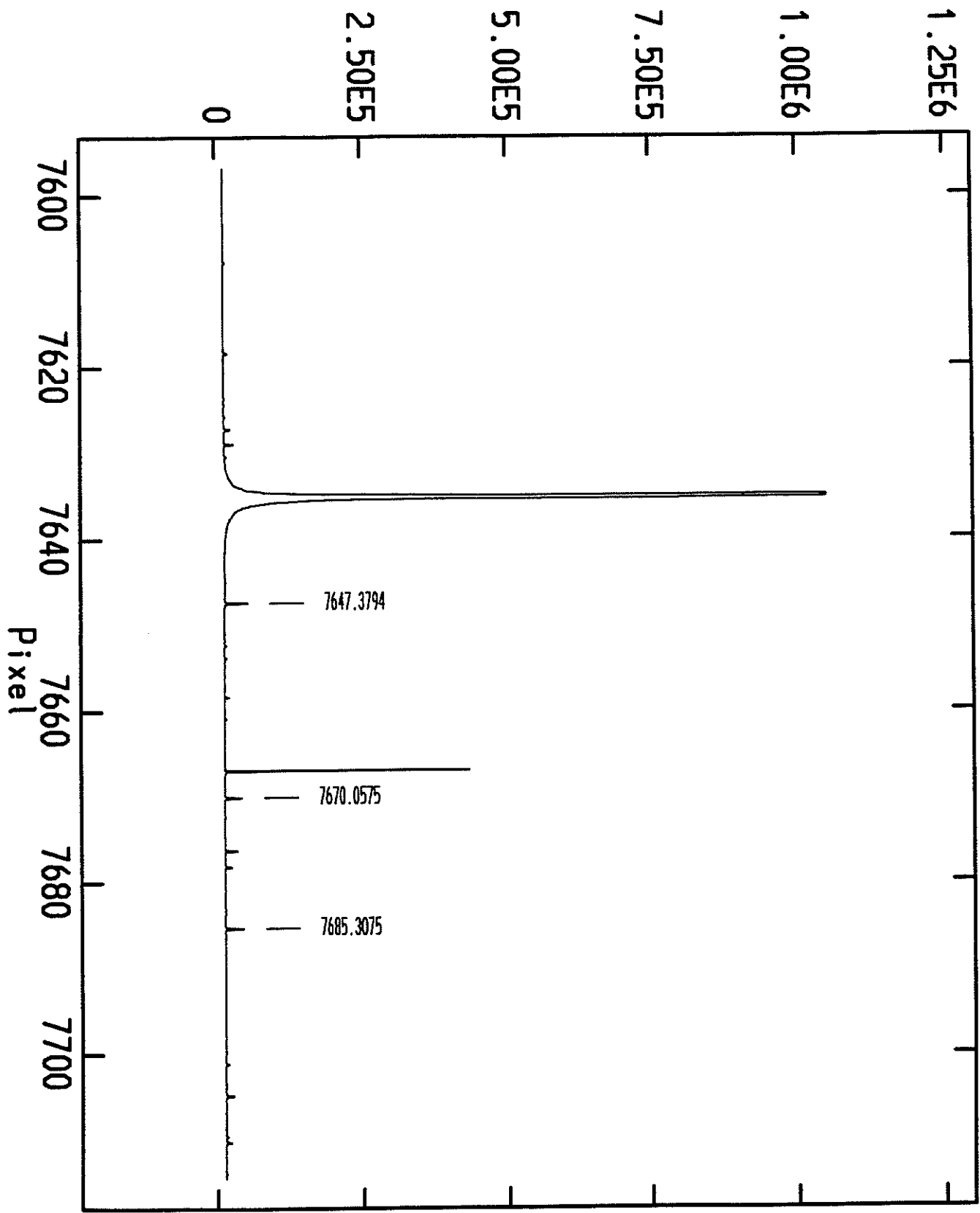


GAO/IRAF V2.10EXPORT pkoumbra.U3C.EDU Mgn 16:27:28 13-Sep-93
Aperture 12, Order 47
Identify data0276.ec: hor

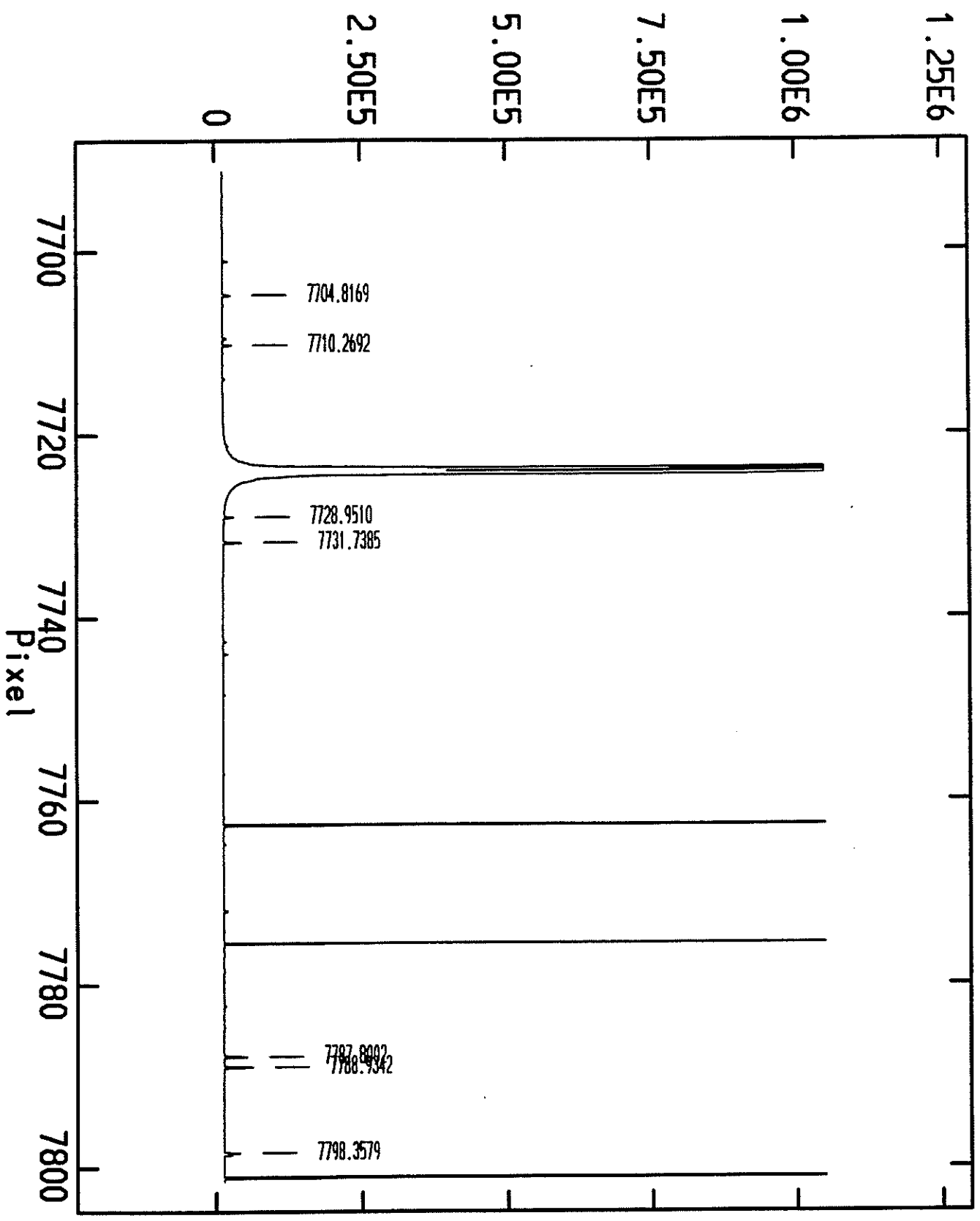




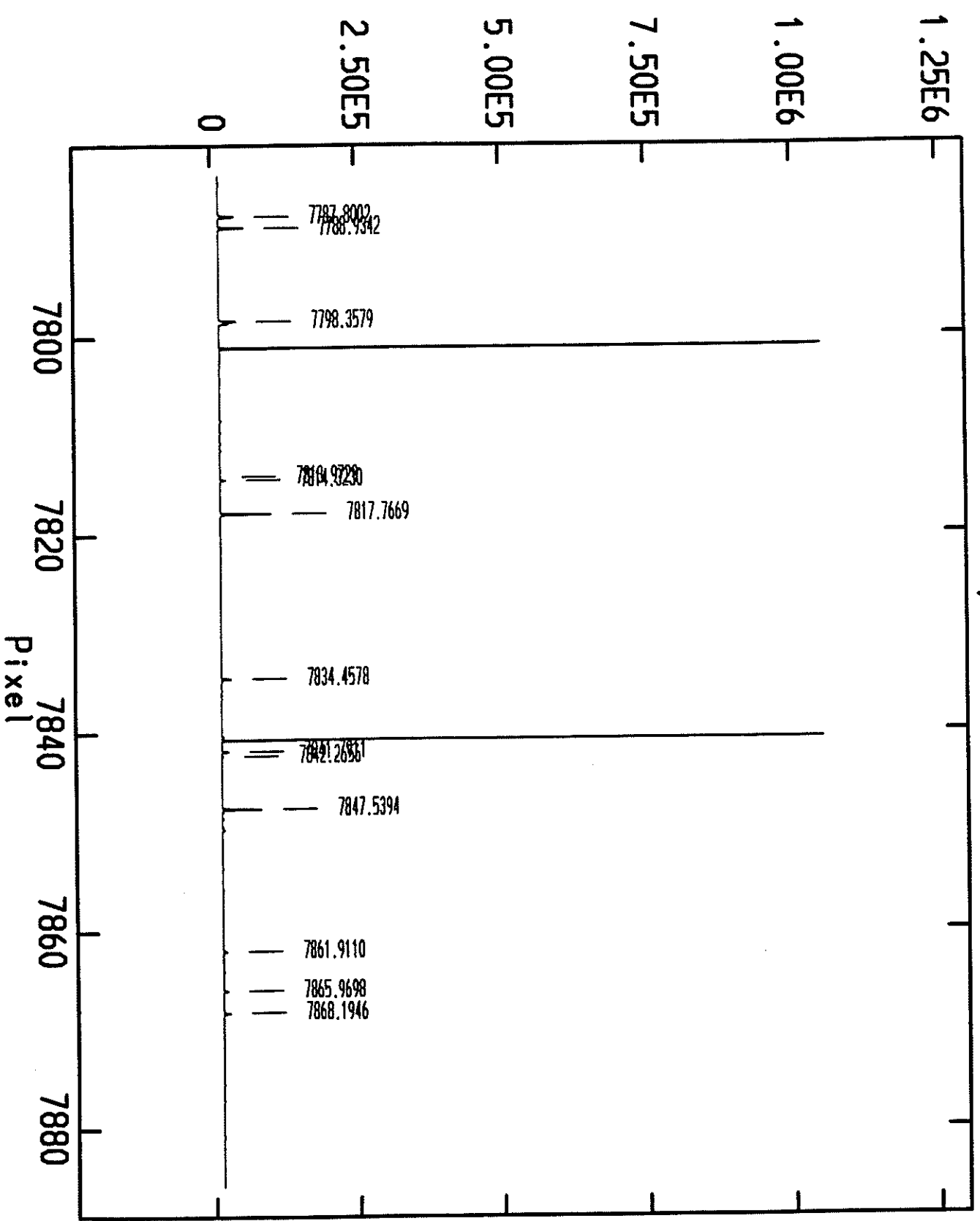
IRAF/IRAF V2.10EXPORT pk@umbra. UCC.EDU Mgn 16:29:54 13-Sep-93
Aperture Image 11 Order 46
identify data0279.ec: hor



NOAO/IRAF V2.10EXPORT μ keumbra UCSC:EDU Mon 16:06:20 13-Sep-93
Aperture 12 image file 12 Order 46
identify data0275.ec: hor

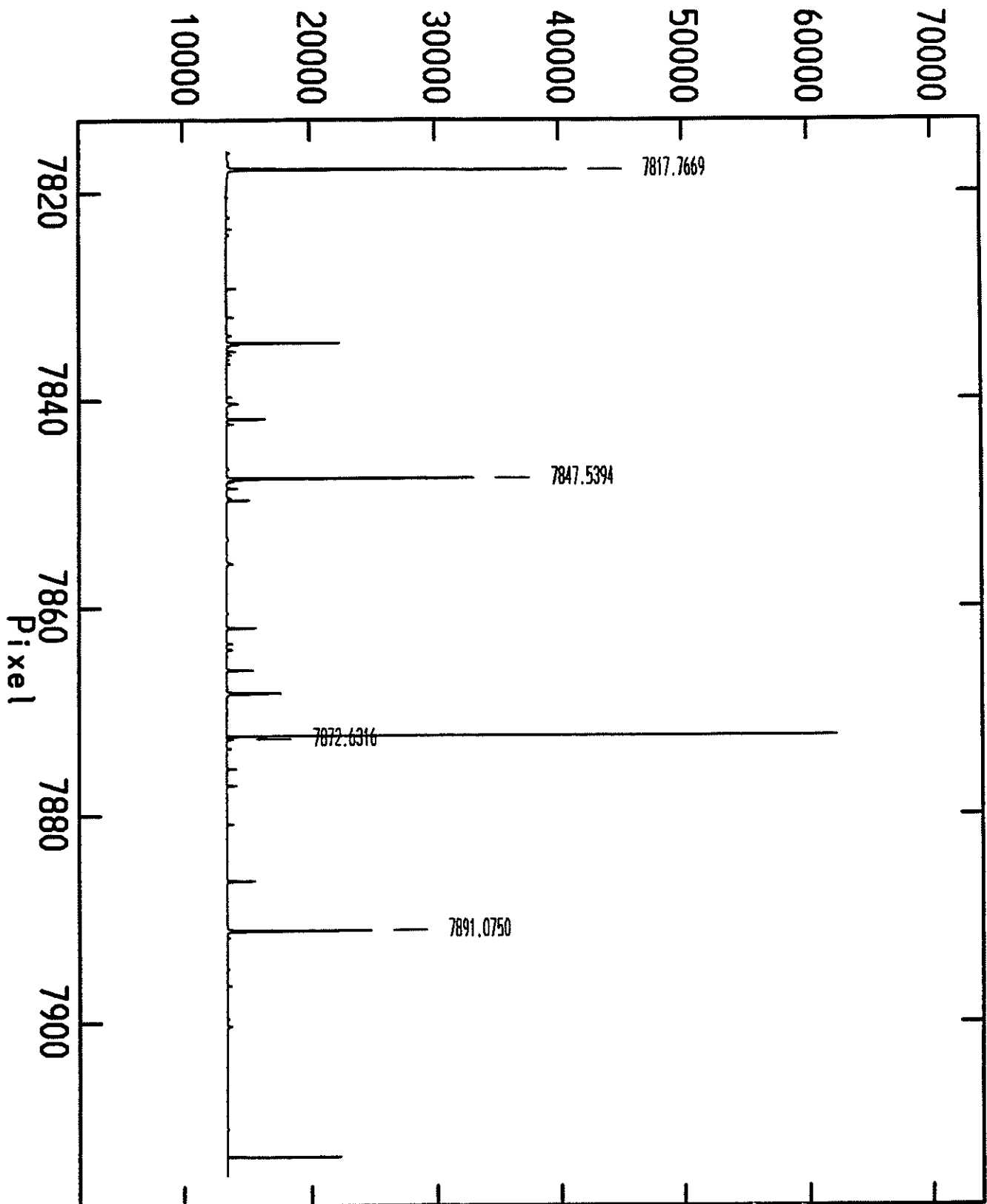


NOAO/IRAF V2.10EXPORT μ kyumbra: SC:EDU Mon 16:27:33 13-Sep-93
Aperture 13, Image Line 13, Order 46
identify data0276.ec: hor

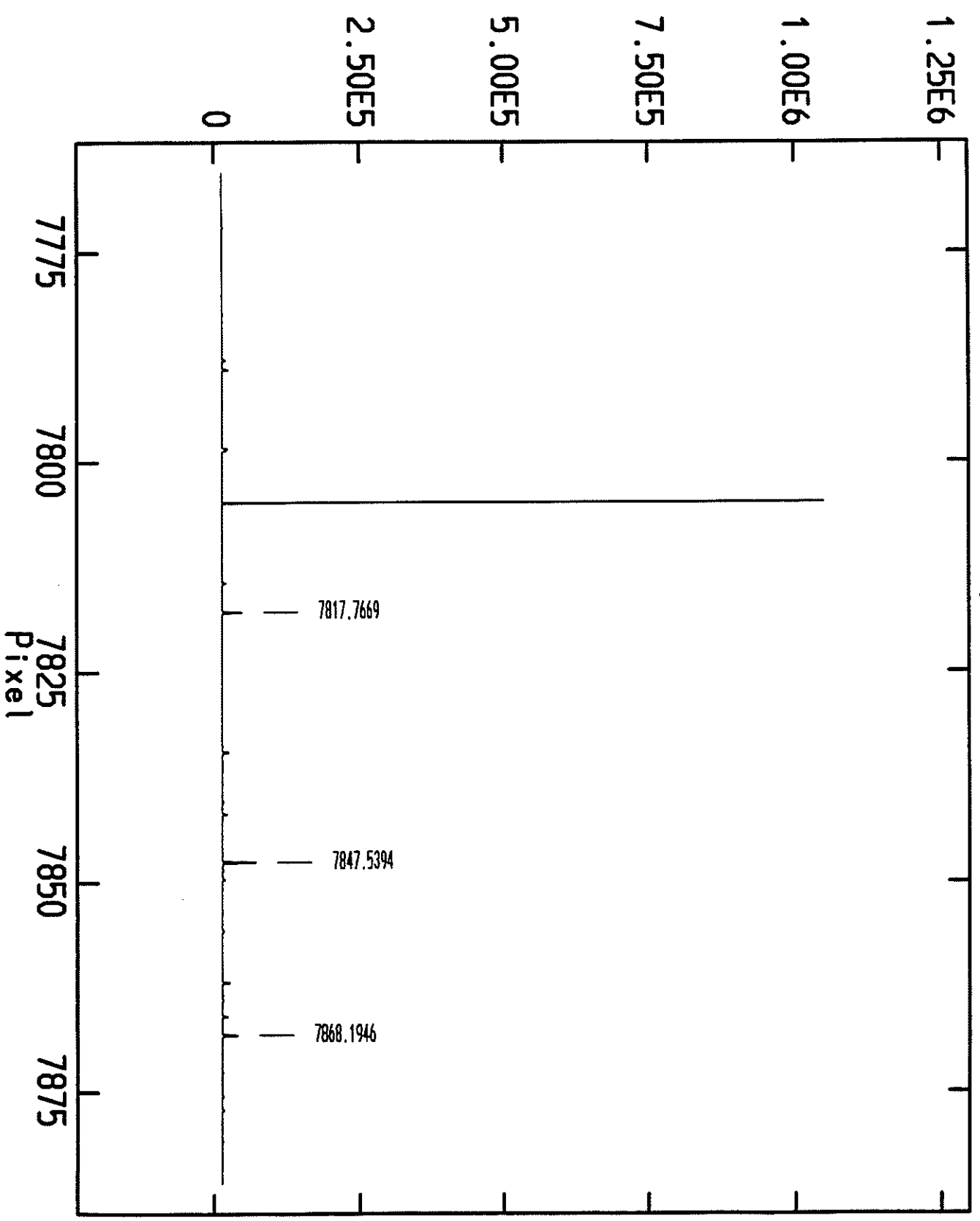


NOAO/IRAF V2.10EXPORT mk@umbr.a.ucsc.edu Mon 16:32:32 13-Sep-93

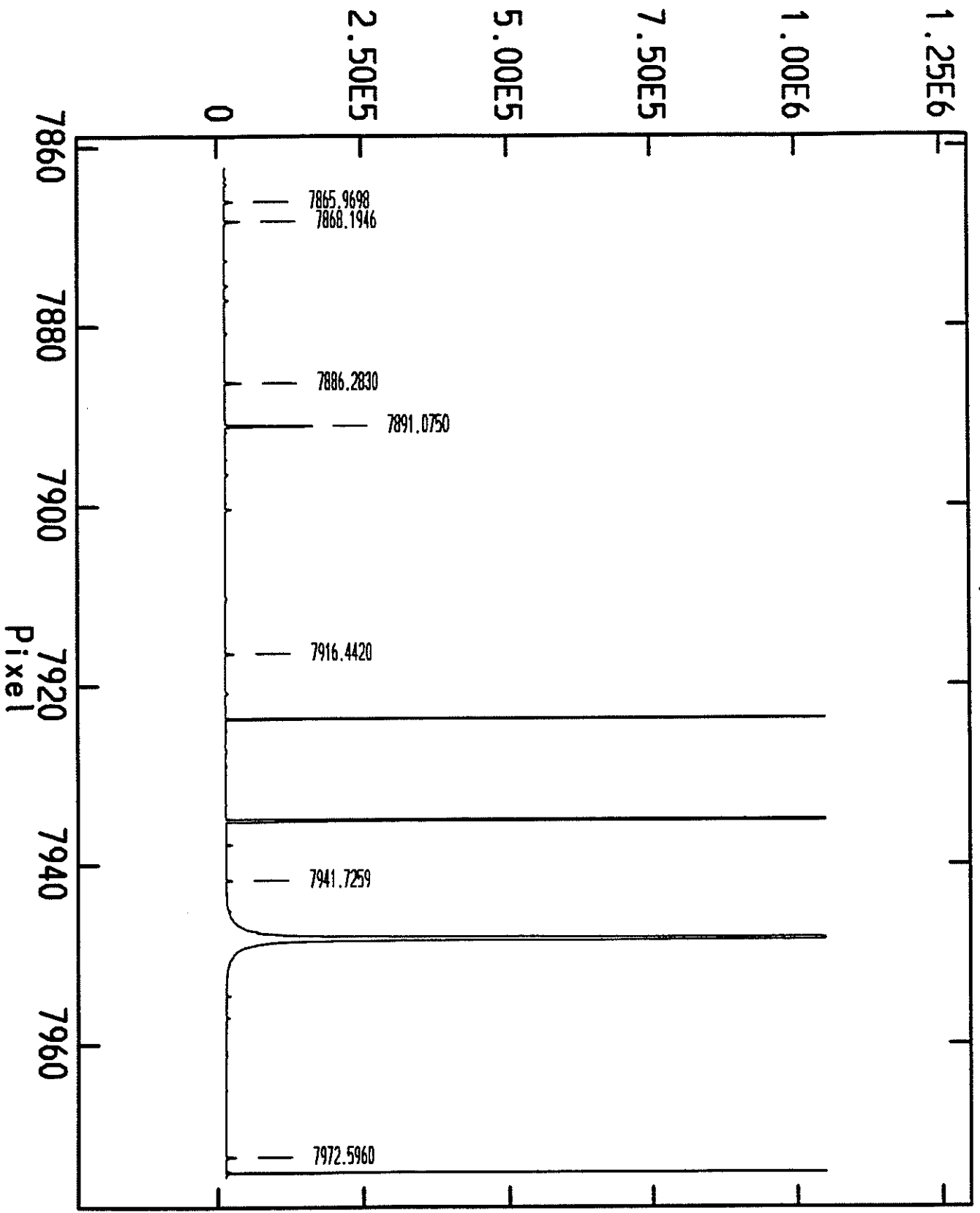
Aperture 2. Image 1198.2. Order 46
Identify data 0284.ec: hor



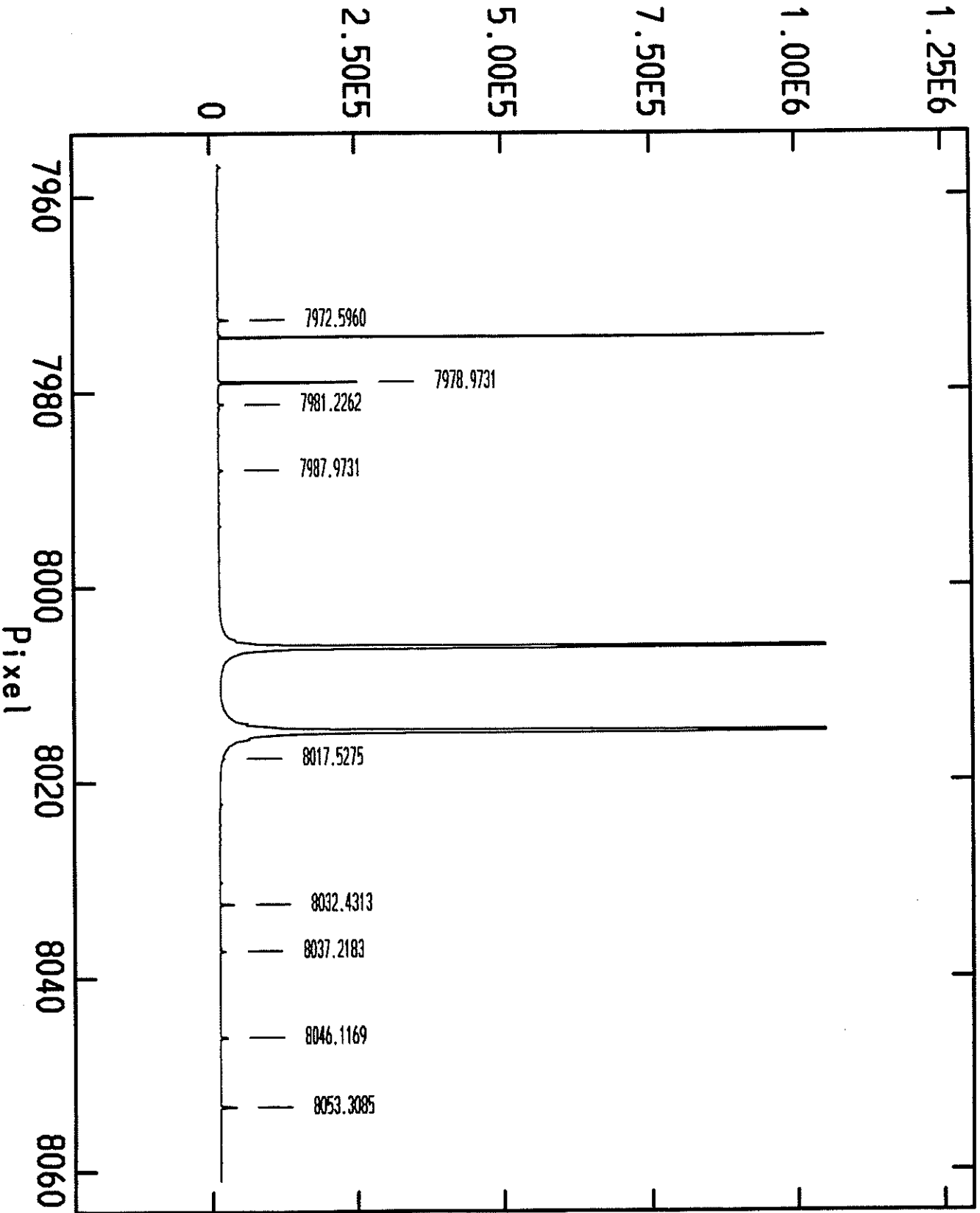
NOAO/IRAF V2.10EXPORT mkoumbra: SC:EDU Mn 16:29:58 13-Sep-93
Aperture 12" Image 12" Order 45
identify data0279.ec: hor



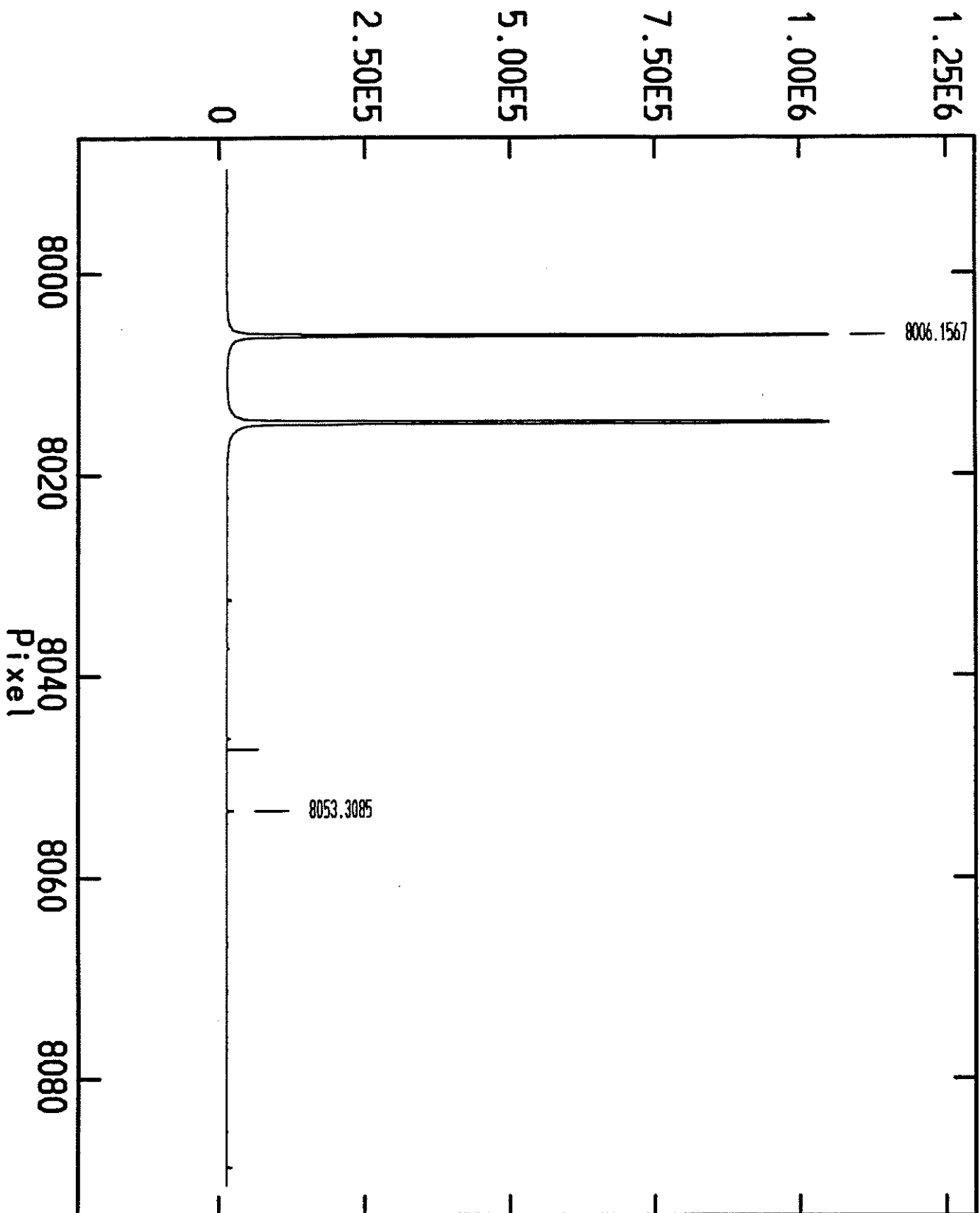
Aperture 13 Image Line 13 Order 45
Identify data0275.ec: hor



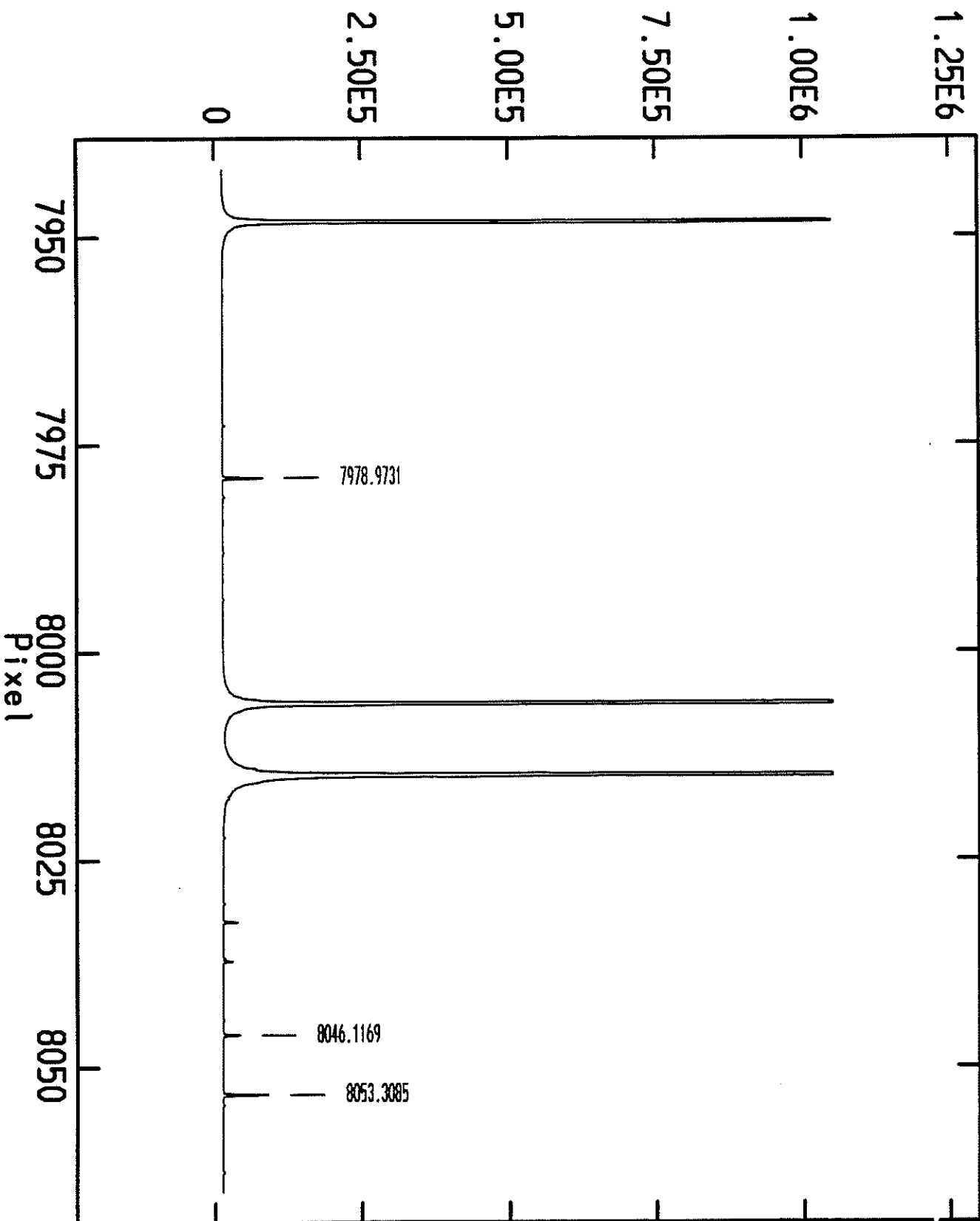
IRAO/IRAF V2.10EXPORT mk@umbra.UCC.EDU Mon 16:27:38 13-Sep-93
Aperture 14 Image 14 Order 45
Identify data0276.ec: hor



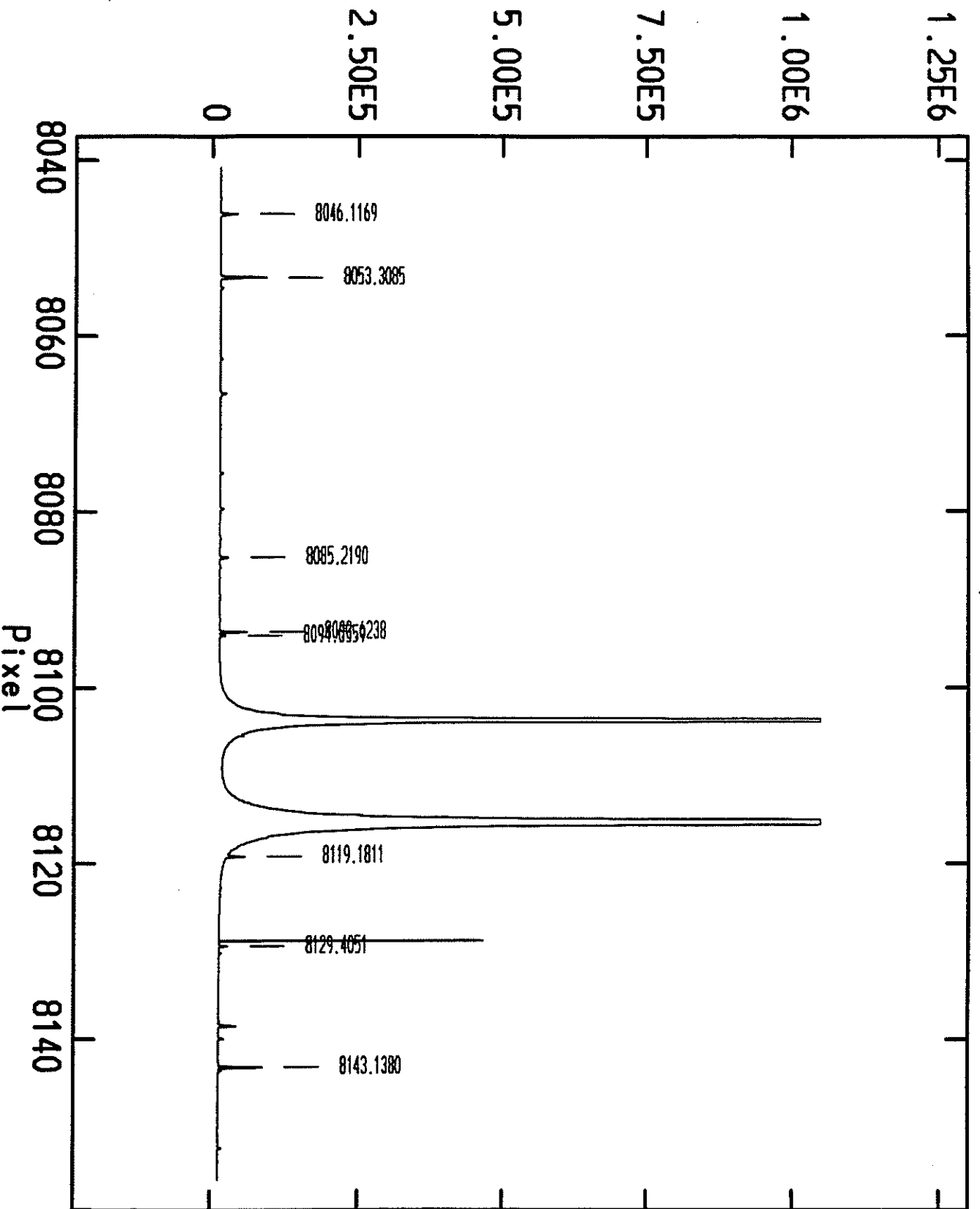
Aperture 3, Image 1, Order 45
Identify data 0284.ec: hor



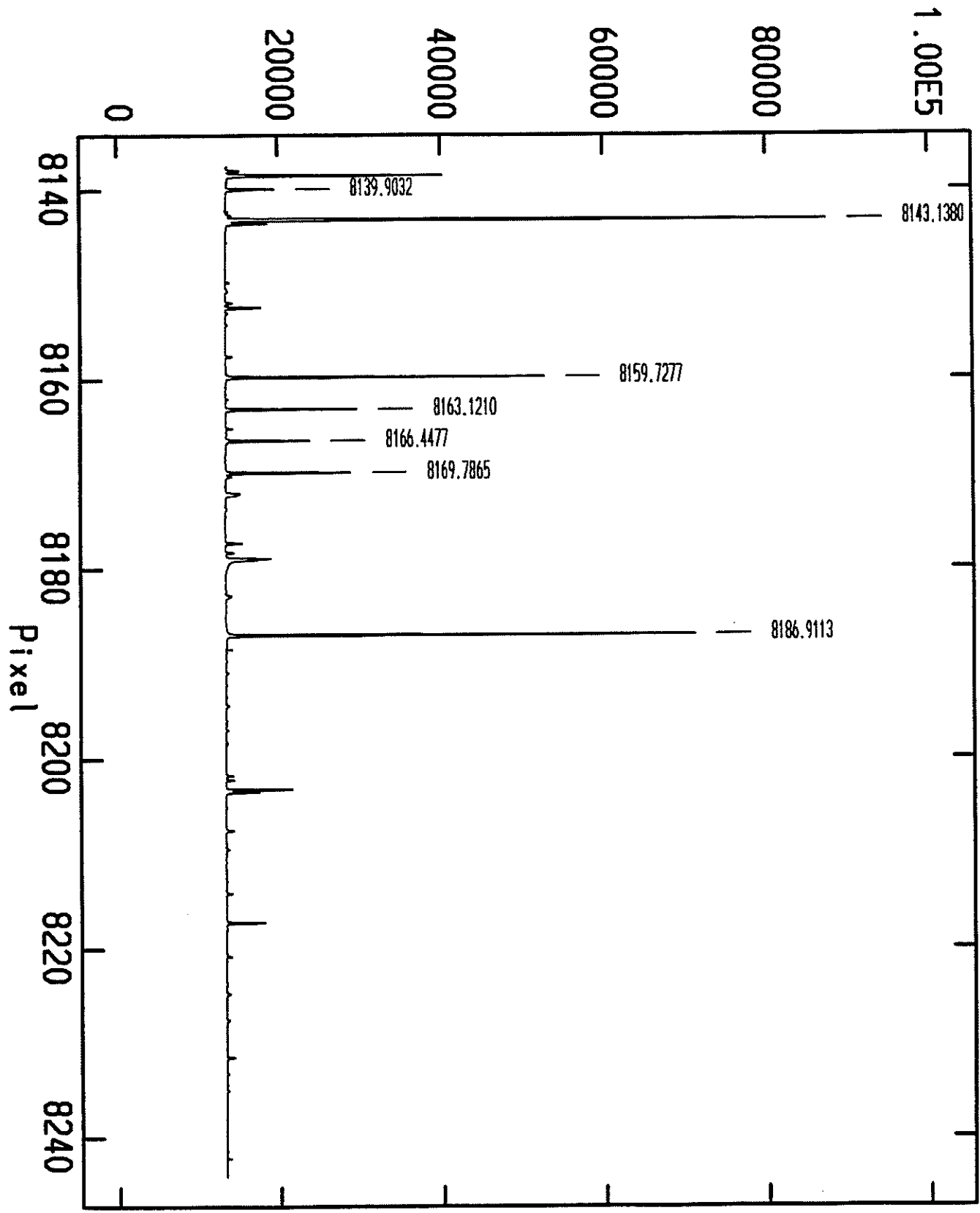
NOAO/IRAF V2.10EXPORT pk@umbra 'CSC.EDU Mn 16:30:02 13-Sep-93
Aperture 13, Image Line 13, Order 44
eidentify data0279.ec: hor



NOAO/IRAF V2.10EXPORT pk@umbra.ucsc.edu Mgn 16:06:31 13-Sep-93
Aperture 14 Image 14 Order 44
identify data0275.ec: hor

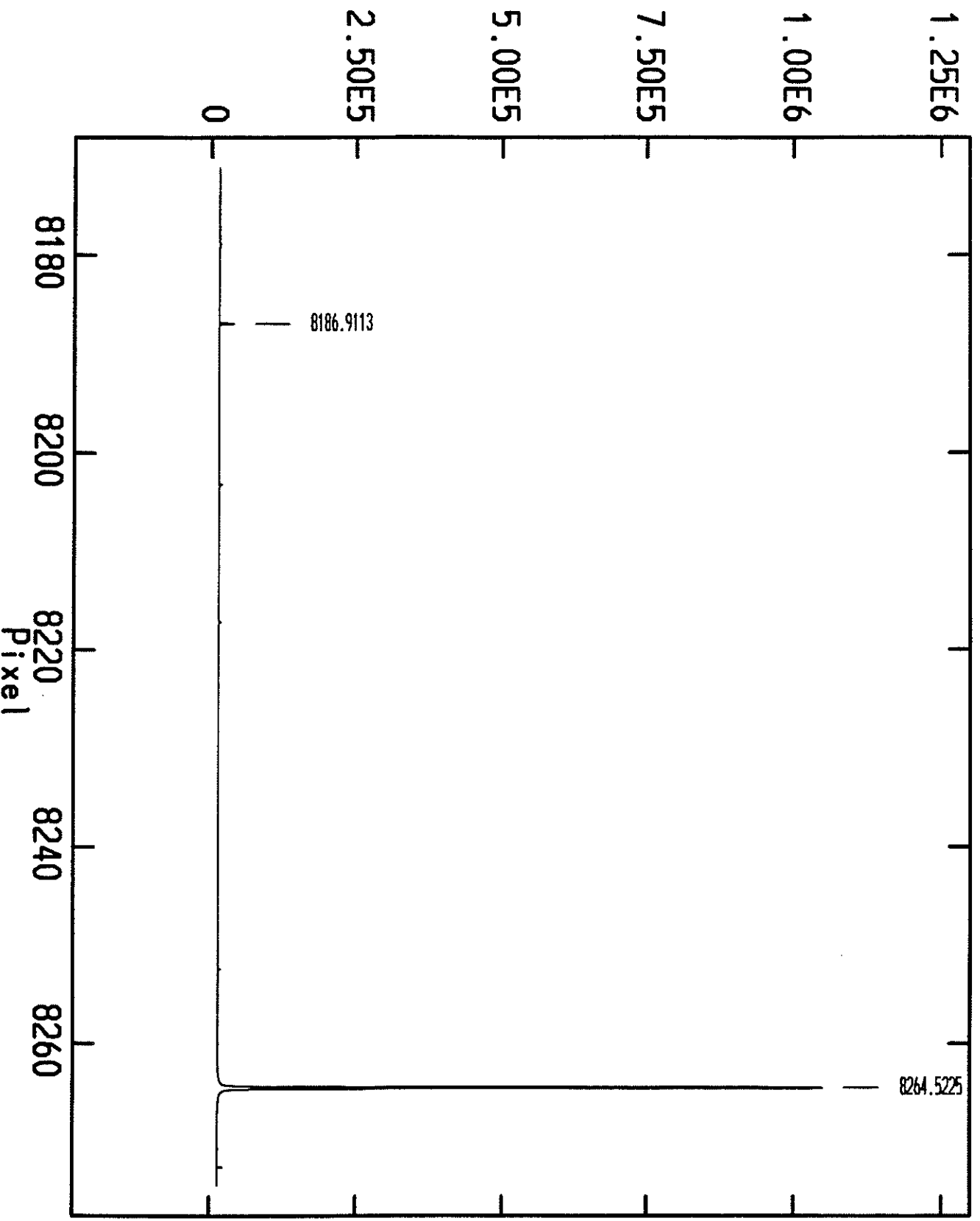


QA0/IRAF V2.10EXPORT keumbra.UCC.EDU Mgn 16:27:42 13-Sep-93
Aperture 15 Image 15 Order 44
Identify data 0276.ec: hor

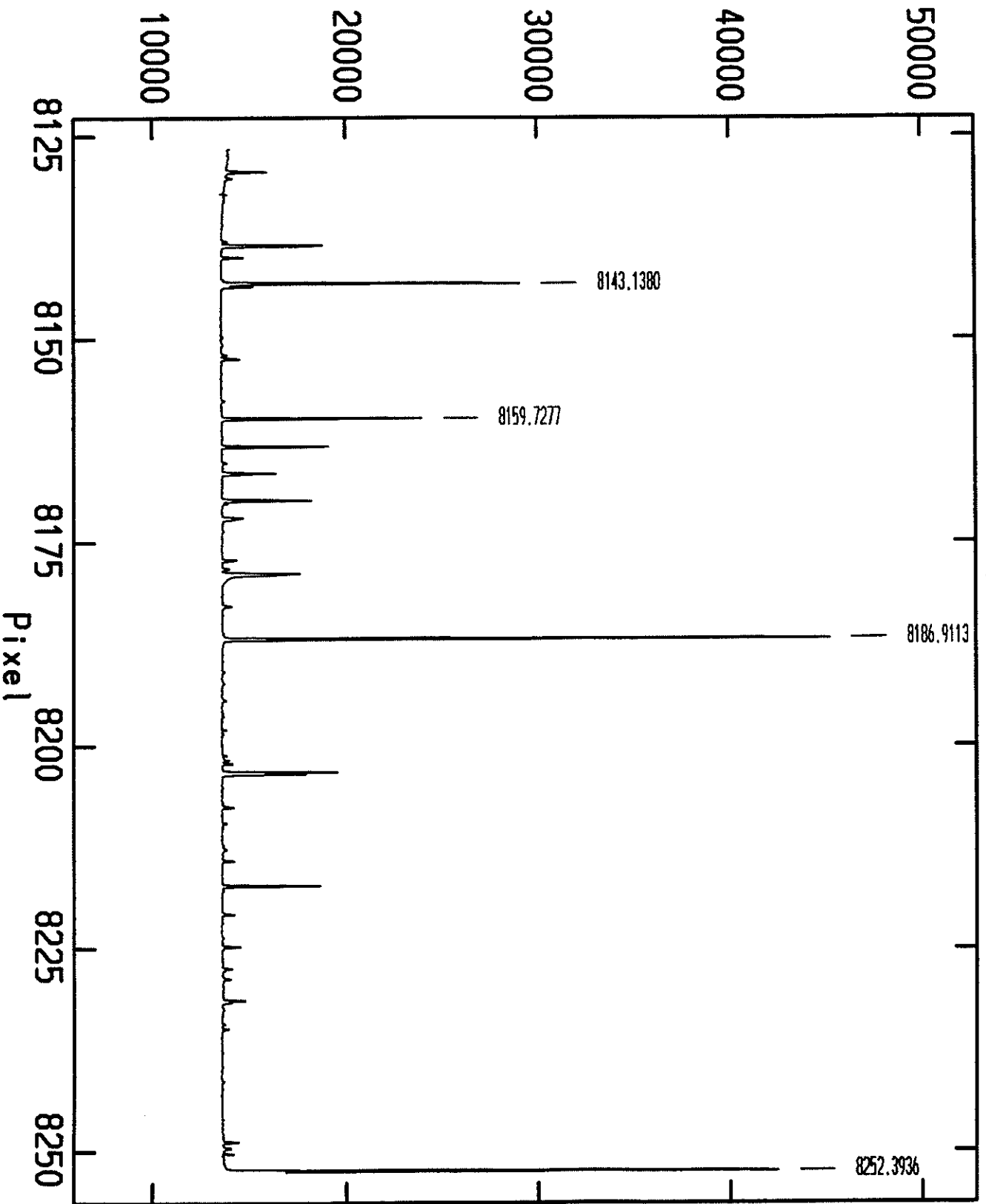


NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:32:40 13-Sep-93

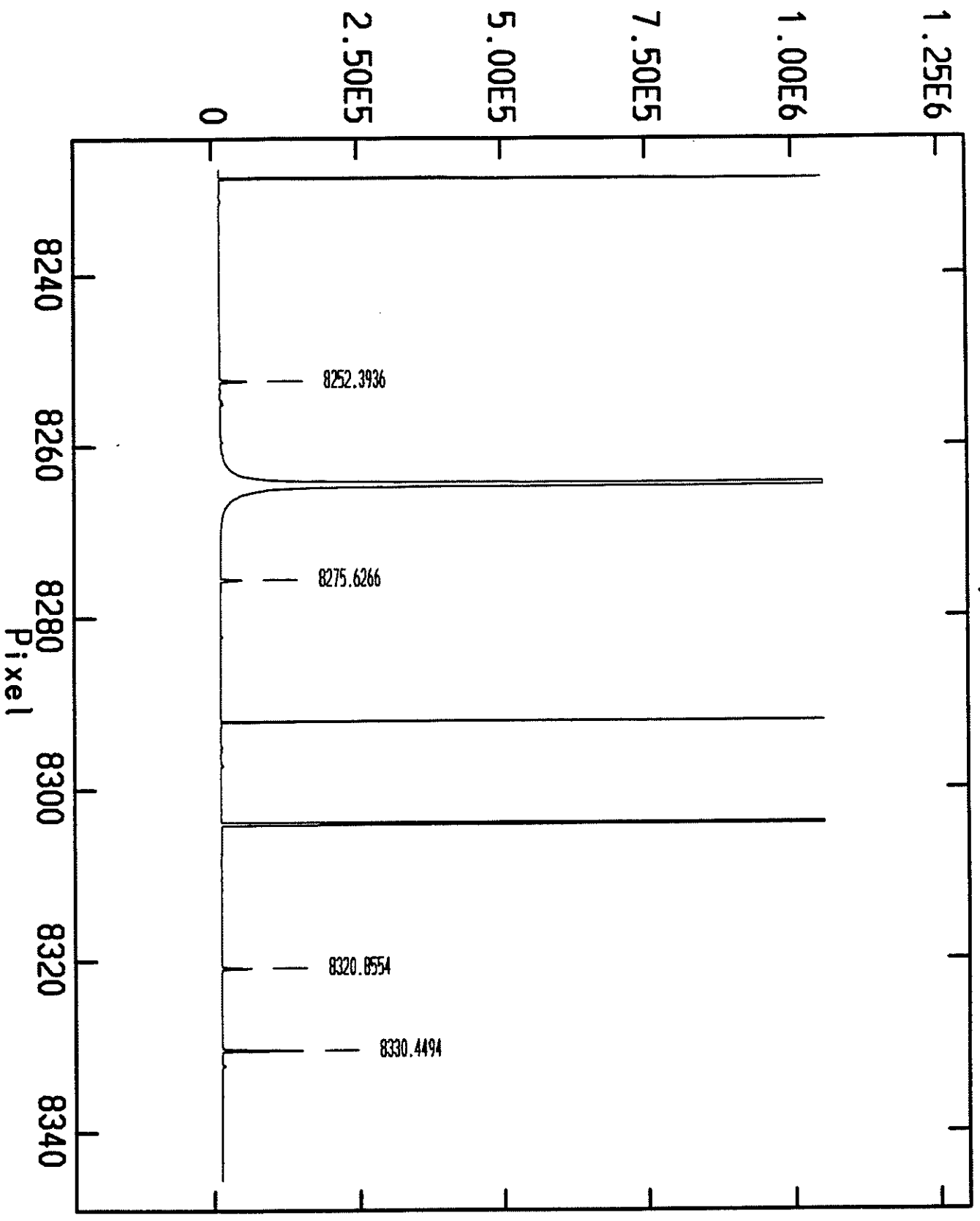
Aperture 4 Image file 4 Order 4
eidentify data0284.ec: hor



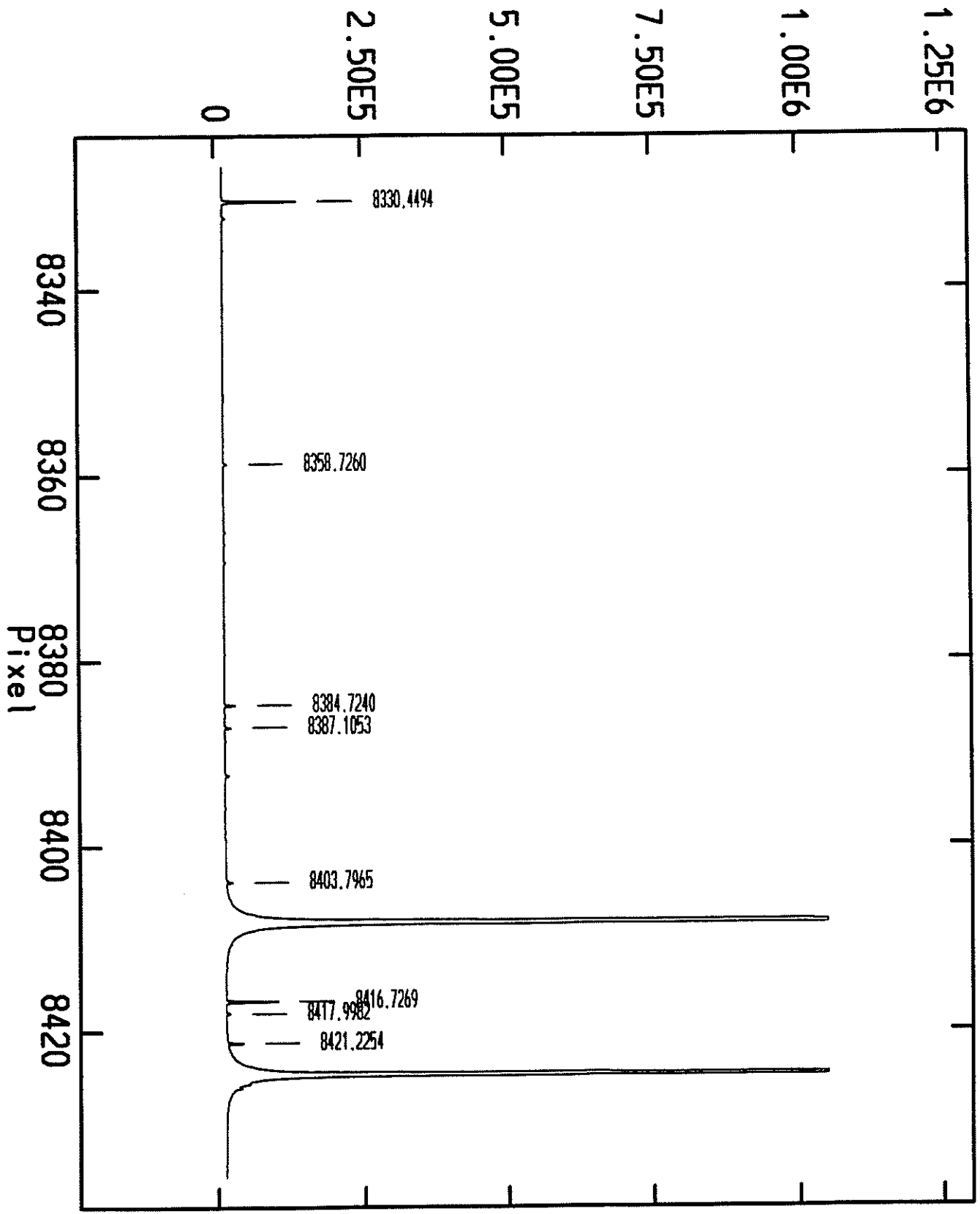
NOAO/IRAF V2.10EXPORT mkoumbra: SC:EDU Mgn 16:30:19 13-Sep-93
Aperture 14 Image 1199 Order 43
Identify data0279.ec: hor



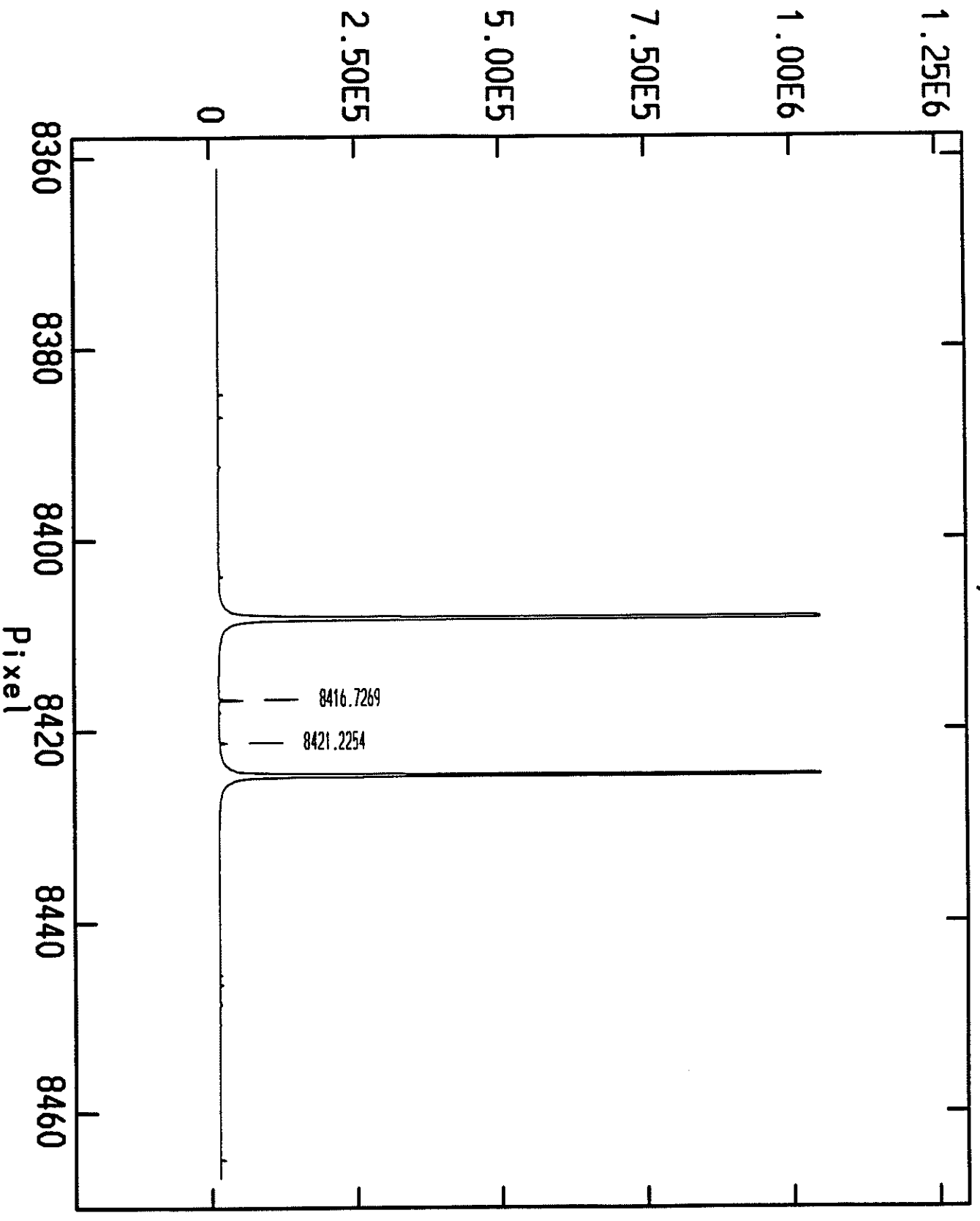
Aperture 15, Image Size 15, Order 43
identify data0275.ec: hor



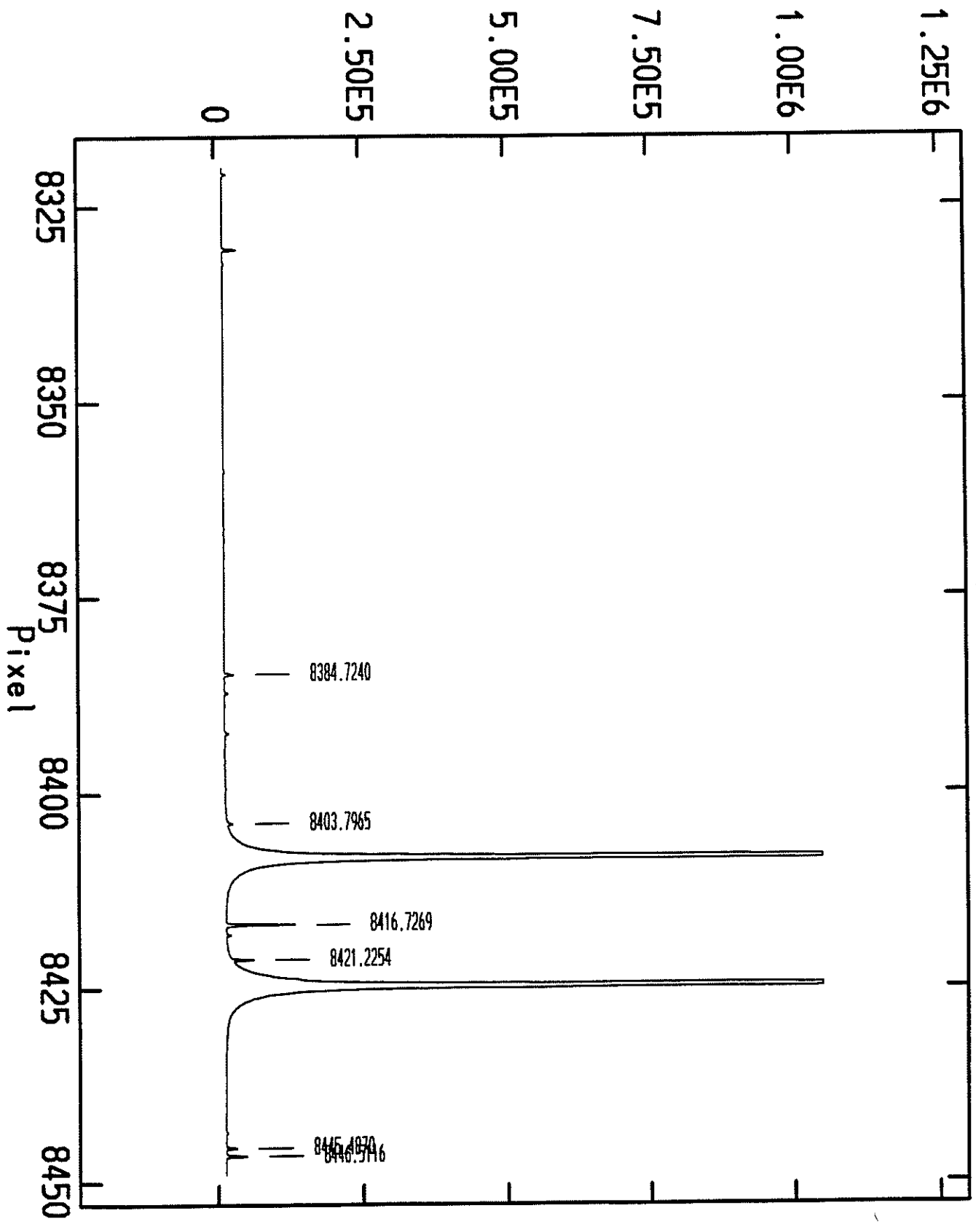
NOAO/IRAF V2.10EXPORT pk@umbra.1~SC.EDU Mgn 16:27:46 13-Sep-93
Aperture 16. Image 16. Order 43
identify data0276.ec: hor



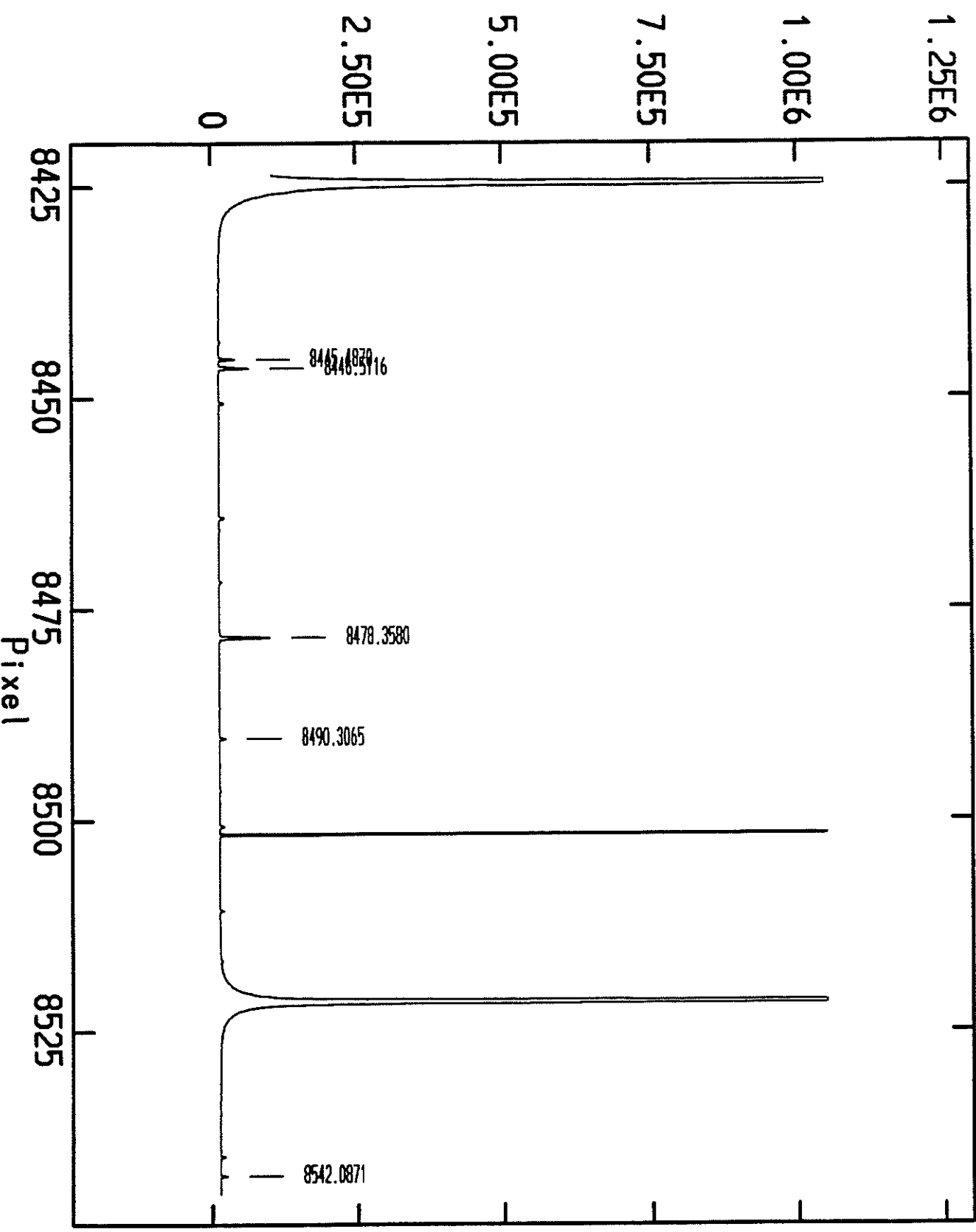
NOAO/IRAF V2.10EXPORT mk@umbra.ucsc.edu Mon 16:32:45 13-Sep-93
Aperture 5, Image Line 5, Order 43
Identify data 0284.ec: hor



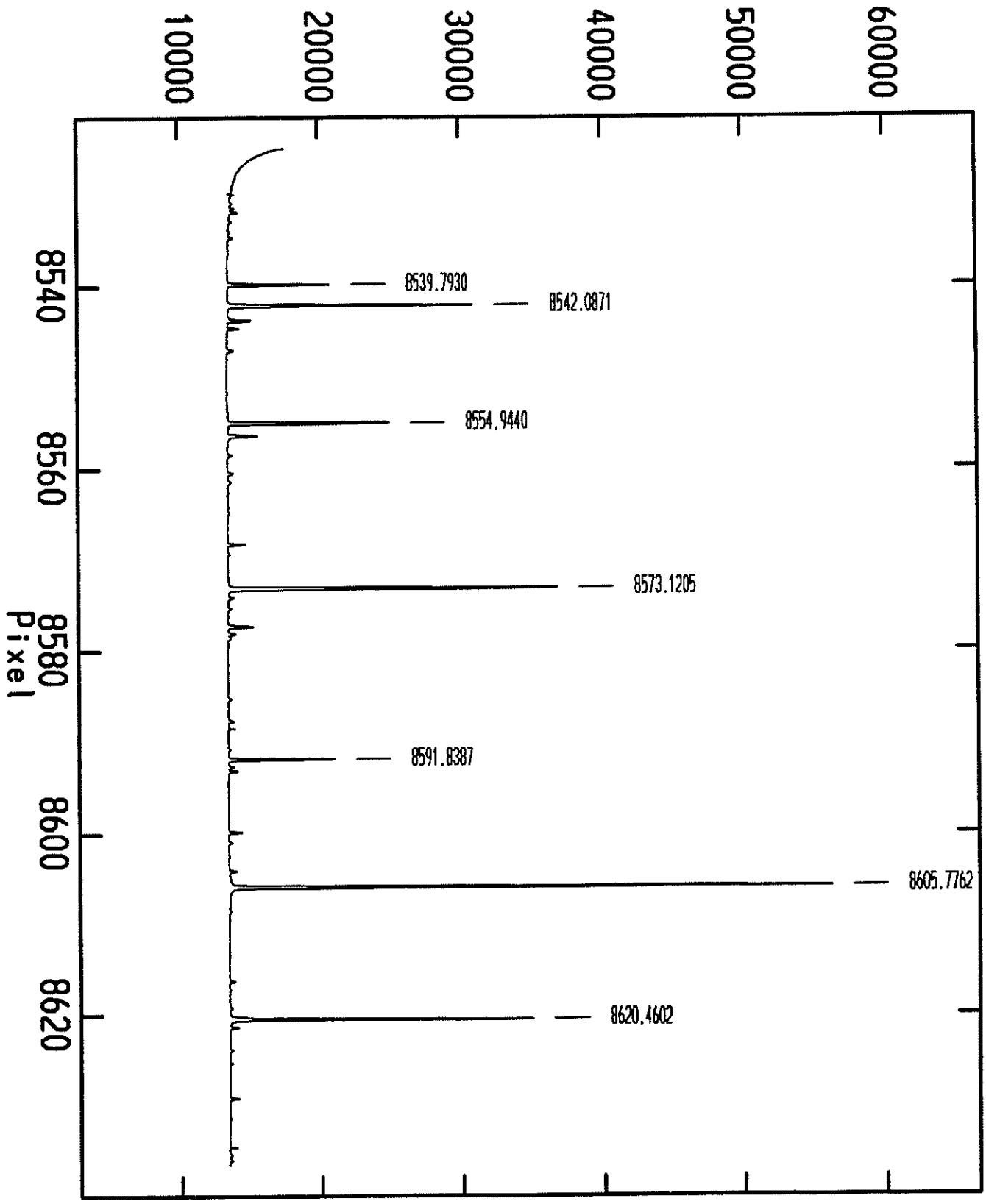
IRAO/IRAF V2.10EXPORT mk@uobra.UTSC.EDU Mon 16:39:24 13-Sep-93
Aperture 15 Image 15 Order 42
identify data0279.ec: hor

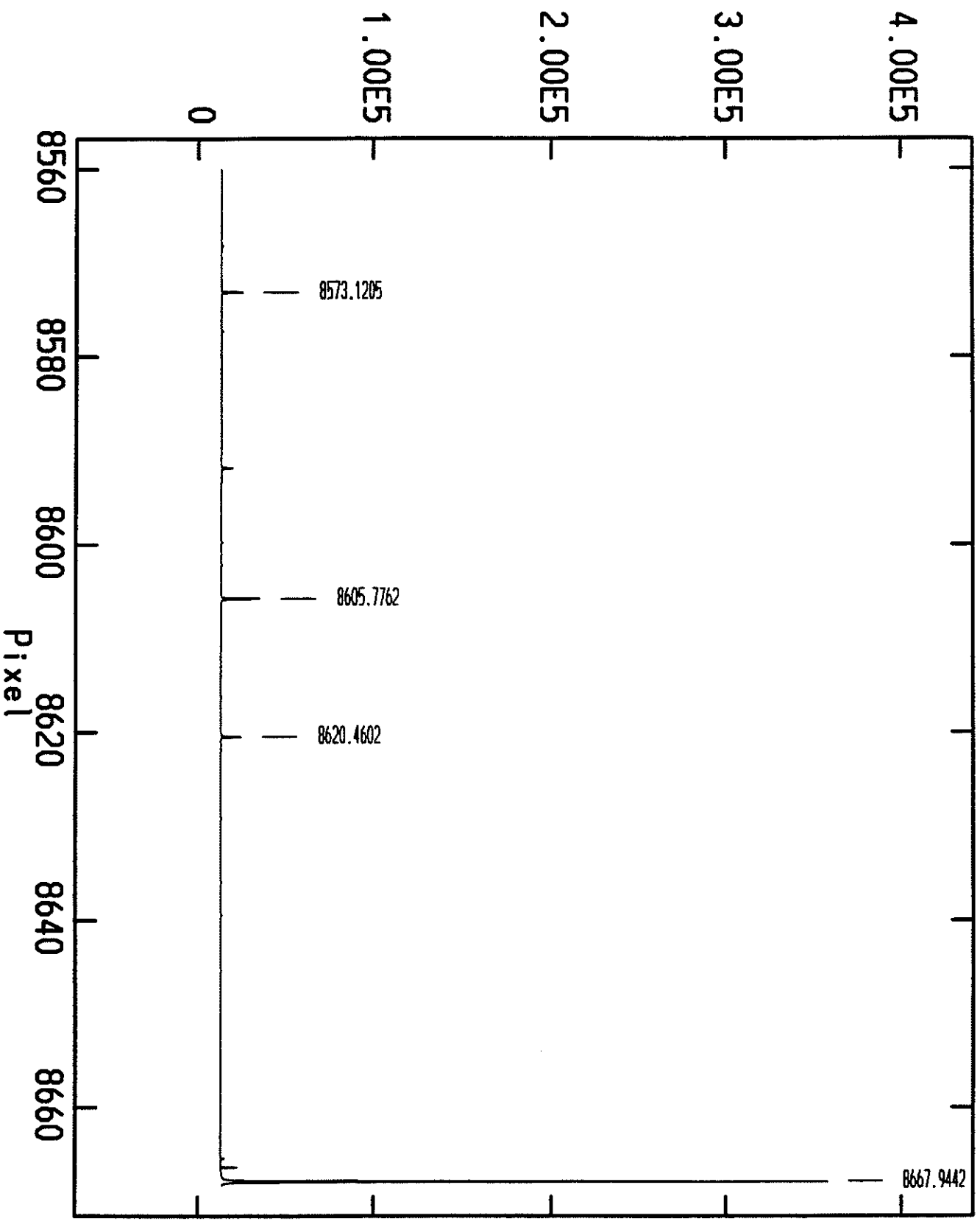


NOAO/IRAF V2.10EXPORT pk@umbra.ucsc.edu Mgn 16:06:44 13-Sep-93
Aperture 16 Image Line 16 Order 42
ecidenti: fy data0275.ec: hor

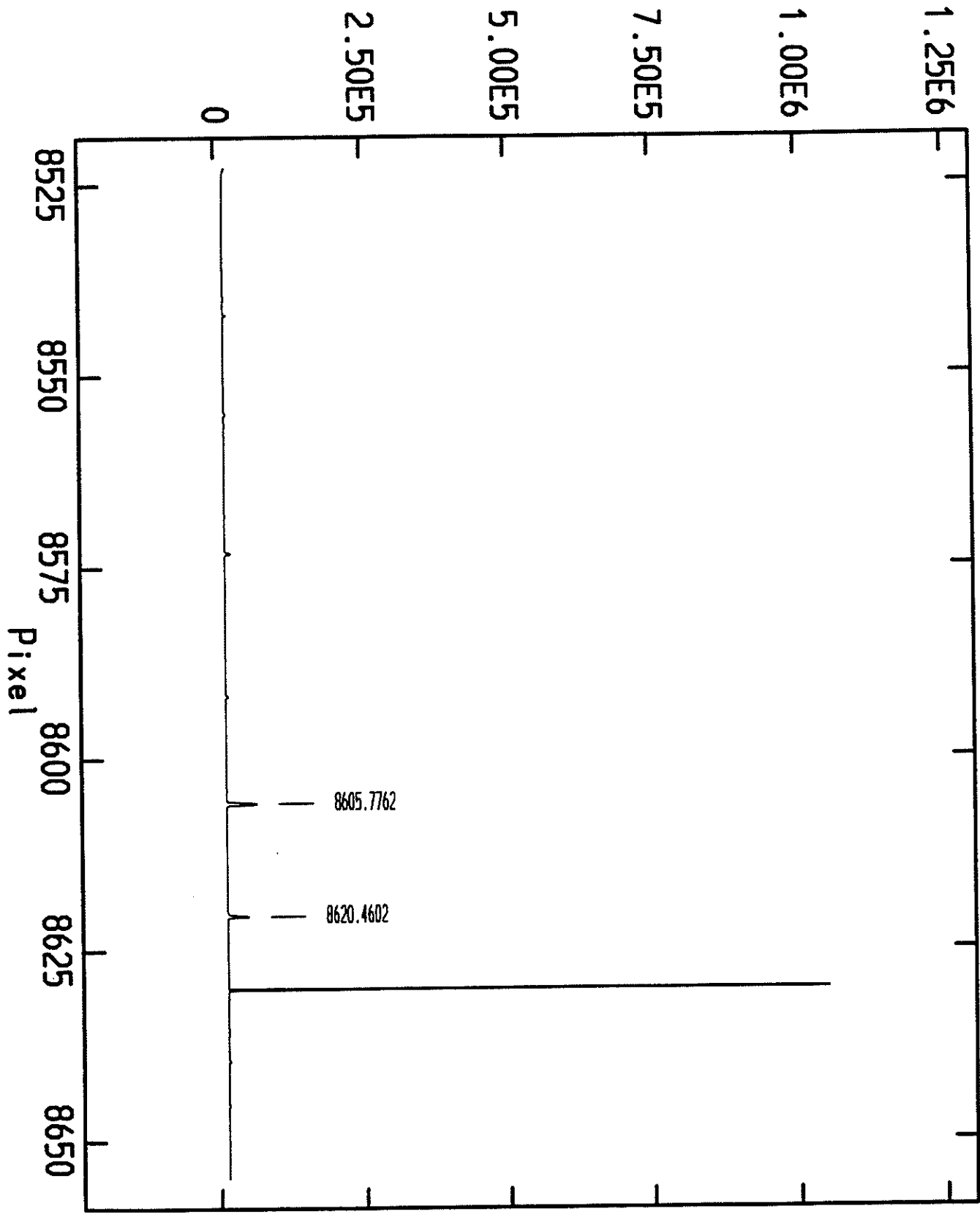


NOAO/IRAF V2.10EXPORT of umbra 'CSC.EDU Mn 16:27:51 13-Sep-93
Aperture Image Line Order 42
Identify data 0276.ec: hor

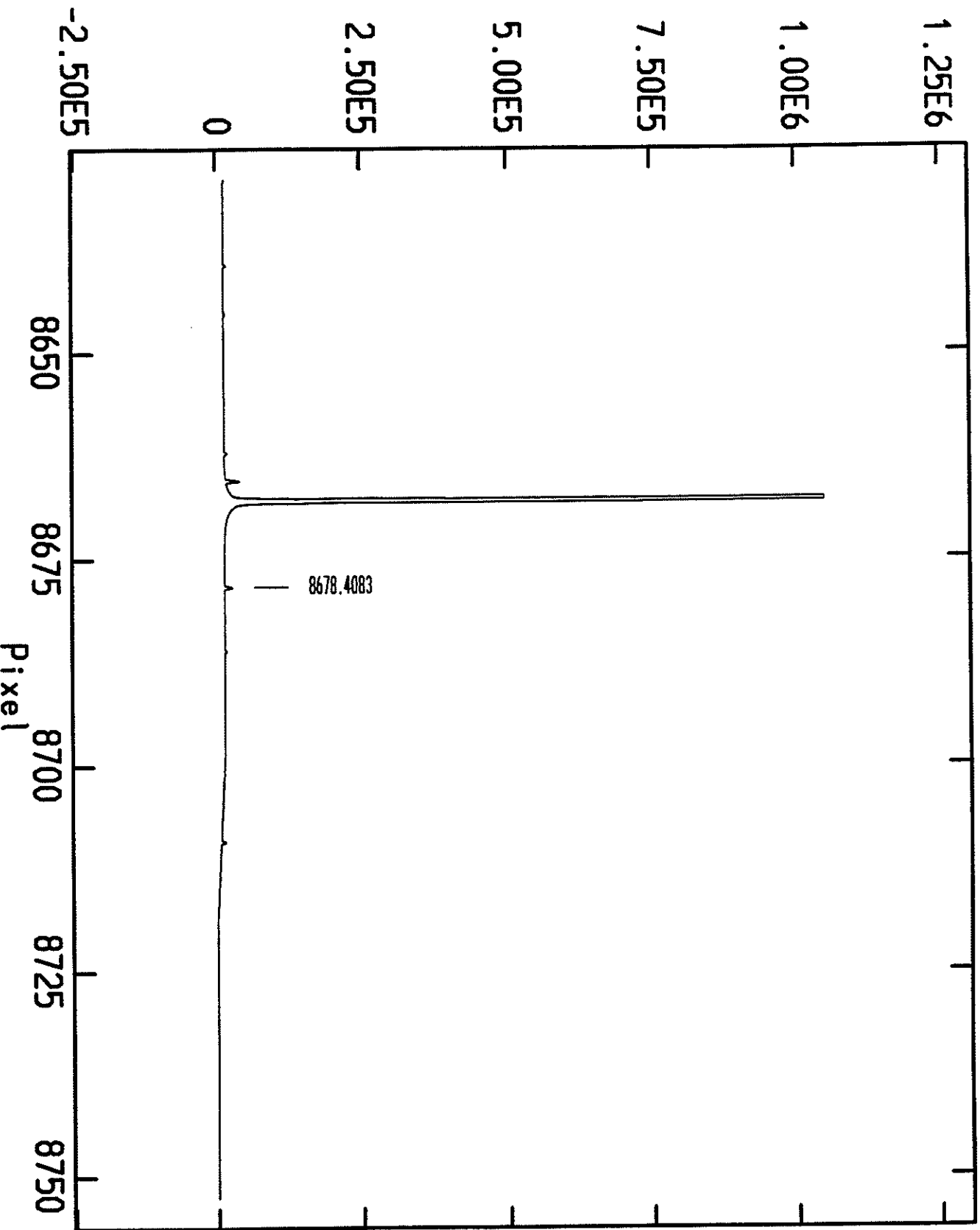




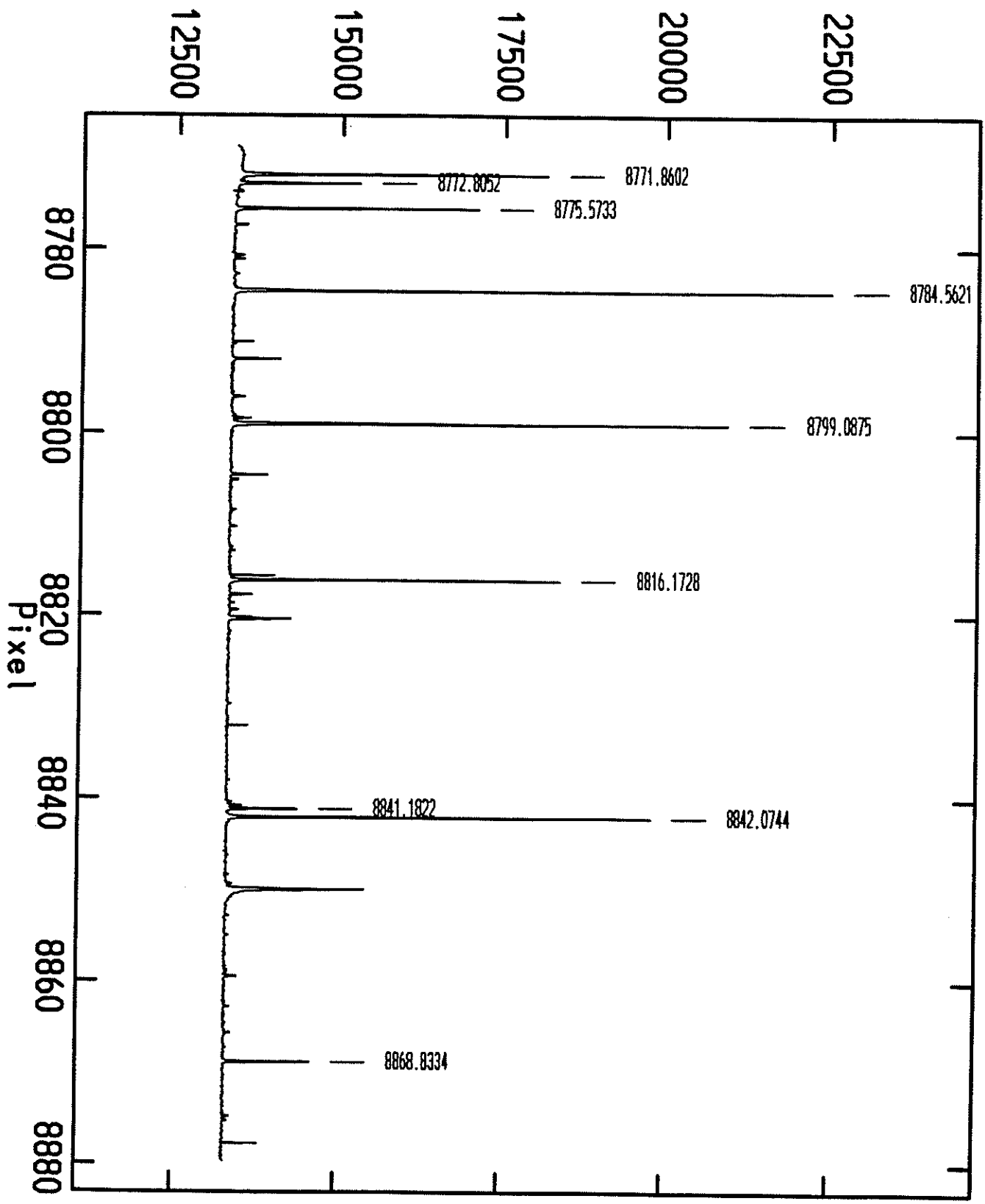
IDAQ/IRAF V2.10EXPORT mk@umbra.ITSU:EDU Mgn 16:30:29 13-Sep-93
Aperture 16 Image 16 Order 4
identify data0279.ec: hor



NOAO/IRAF V2.10EXPORT μ kyeumbra.ucsc.edu Mon 16:06:49 13-Sep-93
Aperture 17.1 image line 1, Order 41
identify data0275.ec: hor



GAO/IRAF V2.10EXPORT mk@umbra.UCC.EDU Mon 16:33:10 13-Sep-93
Aperture / image / data0284.ec: hor



NOAO/IRAF V2.10EXPQRT mk_eumbra.ucsc.edu Mon 16:11:20 13-Sep-93

Aperture image LiI 890.7
identify data0280.ec: hor

