



Released: March 25, 2009

853 observations processed

571 HETG/ACIS

88 LETG/ACIS

194 LETG/HRC

61 error cases to be fixed

113 rejected (“grating-as-a-filter”)

290 distinct sources

Verification & Validation (V&V):

All summary products examined for zeroth order position, extraction region, confusing sources. Comments and warnings included in V&V report.

Reprocessed to apply CALDB 4.1
(took ~3 days)

New feature: search by object type

SEARCH BY NAME

Search Object name; Optionally use SIMBAD resolver ... [More](#)

OBJECT TYPE SEARCH

Select one or multiple object types to search for. Hold Control/Shift to select multiple objects matching ALL selected use 'Exclusive'. To search for object matching any on the SIMBAD primary type select 'Primary Type'

SIMBAD categories; give multiple selections ("AND" or "OR" logic)

Candidate (39)	Composite (164)	Galaxy (69)	Nebula (14)	Star (207)	Wavelength
(11) Black Hole Ca... (28) Neutron Star ...	(49) Double or mul... (1) Eclipsing bina... (3) Cataclysmic Va... (2) Cataclysmic Va... (6) Dwarf Nova (6) Cataclysmic Va...	(47) Active Galaxy... (14) Blazar (7) BL Lac - type ... (3) Emission-line ... (63) Galaxy (6) Galaxy in Clus...	(2) Emission Objec (1) Herbig-Haro Ob (4) HII (ionized) ... (5) Planetary Nebu (4) SuperNova Remn	(141) Star (3) Star in double... (2) Star in Associ... (16) Star in Clust (3) Star in Nebula (2) Variable Star ...	(12) Blue o (136) gamr (8) gamma (162) Infra- (2) Maser (1) Near-IR

Search Type: Exclusive Inclusive Primary Type

Submit Query Reset

SEARCH BY COORDINATE

Search by Coordinates in a number of systems ... [More](#)

SEARCH BY SPECTRAL PROPERTIES

Search by Derived Spectral Properties ... [More](#)

SEARCH BY OBSID

Search by Chandra Observation ID ... [More](#)

... object type search results

RESULTS: Found 47 matching sources

+/-	Links	object [▲]	simbad_ID [▲]	ra(h:m:s) [▲]	decl(d:m:s) [▲]	primary_type [▼]	other_types [▲]
<input type="checkbox"/>	s	-6-30-15	ESO 383-35	13:35:53.778	-34:17:44.012	Sy1	AGN,G,gam,IR,Sy1,X
<input type="checkbox"/>	s	MCG -5-23-16	ESO 434	16:04:16.041	+36:57:00.000	Sy2	AGN,EmG,G,gam,Sy2,SyG,X
<input type="checkbox"/>	s	IC 4329A	ESO 445-50	16:18:34.233	+50:18:34.233	Sy1	AGN,G,gam,GiC,IR,Rad,Sy1,X
<input type="checkbox"/>	s	IRAS 18325-5926	FRL 49	18:36:58.242	-59:24:8.204	Sy2	AGN,G,gam,IR,Rad,Sy2,X
<input type="checkbox"/>	s	NGC 4258	M 106	12:18:57.510	+47:18:14.362	LIN	AGN,G,gam,IR,Rad,X
<input checked="" type="checkbox"/>	s	M 81*	M 81	09:55:33.171	+69:03:55.107	LIN	AGN,G,gam,IR,Rad,Sy1,QSO,Rad
<input type="checkbox"/>	s	NGC 4486 (M 87)	M 87	12:30:49.409	+12:23:28.320	LIN	AGN,G,gam,GiC,IR,LIN,QSO,Rad
<input type="checkbox"/>	s	Ark 564	MCG+05-53-012	22:42:39.324	+29:43:31.299	Sy1	AGN,G,gam,IR,Rad,Sy1,X
<input type="checkbox"/>	s	Mrk 1044	Mrk 1044	02:30:5.522	-08:59:53.522	Sy1	*,AGN,G,IR,Rad,Sy1,X
<input type="checkbox"/>	s	NGC 2110		05:52:11.376	-07:27:22.573	Sy2	AGN,G,gam,IR,Rad,Sy2,X
<input type="checkbox"/>	s	NGC 2330		23:30.579	+19:51:54.075	Sy1	AGN,G,gam,GiP,IG,IR,QSO,Sy1,X
+/-	Links	object [▲]	simbad_ID [▲]	ra(h:m:s) [▲]	decl(d:m:s) [▲]	primary_type [▼]	other_types [▲]
<input type="checkbox"/>	s	NGC 3516	NGC 3516	11:06:47.487	+72:34:7.220	Sy1	AGN,G,gam,IR,QSO,Sy1,X

Assigned SIMBAD name

Other SIMBAD info

Observer's target name

press "go" to operate on selections: limit view extractions

Go



New Search

Help

press to perform radio action on selected

... extractions view of results

RESULTS: Found 15 matching extractions

“v” tool-tip gives V&V report

Review Status: warning
Comments: Comment: Multiple sources; extraction is of M81*. Warning: There is a bright off-axis source whose MEG spectrum crosses HEG +1 near 15A and will cause some contamination.

+/-	Links	obsid	object	instrument	grating	ra(h:m:s)	decl(d:m:s)	date_obs(y-m-d t)	exposure(s)
<input type="checkbox"/>	o-p-v								
<input type="checkbox"/>	o-p-v								
<input type="checkbox"/>	o-p-v								
<input type="checkbox"/>	o-p-v-s	6174	M 81*	ACIS	HETG	09:55:33.170	+69:03:55.152	2005-02-24 06:56:59	46038
<input type="checkbox"/>	o-p-v-s	5601	M 81*	ACIS	HETG	09:55:33.194	+69:03:55.080	2005-07-19 14:26:03	83362.2
<input type="checkbox"/>	o-p-v-s	6346	M 81*	ACIS	HETG	09:55:33.163	+69:03:55.008	2005-07-14 01:44:55	54492.1
<input type="checkbox"/>	o-p-v-s	6892	M 81*	ACIS	HETG	09:55:33.204	+69:03:55.224	2006-02-08 20:21:15	14764.7
<input type="checkbox"/>	o-p-v-s	6893	M 81*	ACIS	HETG	09:55:33.216	+69:03:55.224	2006-03-05 23:42:33	14764.7
<input type="checkbox"/>	o-p-v-s	6894	M 81*	ACIS	HETG	09:55:33.190	+69:03:55.224	2006-04-01 10:38:21	14767.9
<input type="checkbox"/>	o-p-v-s	6896	M 81*	ACIS	HETG	09:55:33.154	+69:03:55.188	2006-05-14 13:01:03	14767.8
+/-	Links	obsid	object	instrument	grating	ra(h:m:s)	decl(d:m:s)	date_obs(y-m-d t)	exposure(s)
<input type="checkbox"/>	o-p-v-s	6895	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.080	2006-04-24 08:18:52	14563
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.149	+69:03:55.080	2006-07-13 13:41:33	15199.8
<input type="checkbox"/>	o-p-v-s	6897	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.044	2006-06-09 18:14:02	14764.6
<input type="checkbox"/>	o-p-v-s	6900	M 81*	ACIS	HETG	09:55:33.146	+69:03:55.188	2006-07-28 11:10:19	14415.8
<input type="checkbox"/>	o-p-v-s	6901	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.116	2006-08-12 16:15:46	14767.8

press "go" to operate on selections: limit download plot(combined) view sources

Go

Change Columns



New Search

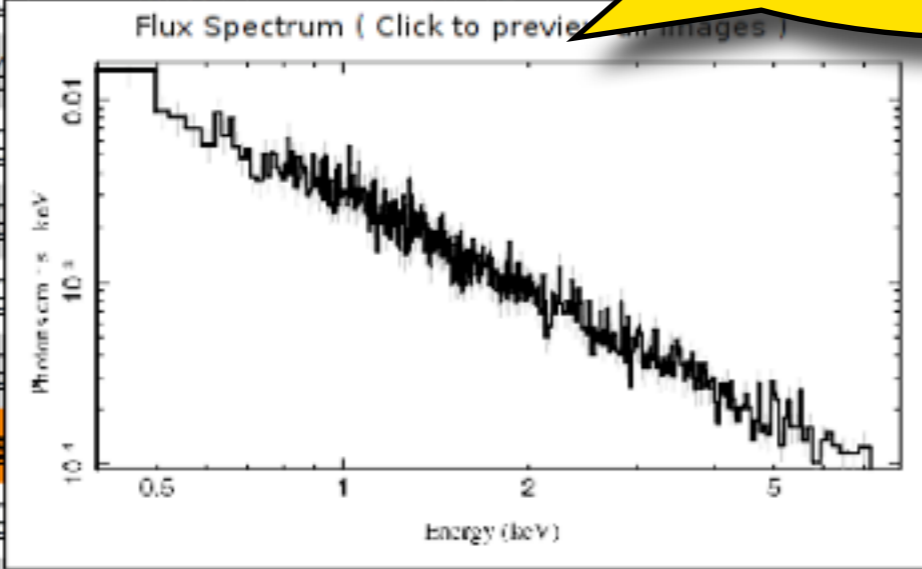
Help

... extractions view of results

RESULTS: Found 15 matching extractions

+/-	Links	obsid	object	instrument	grating	ra(h:m:s)	decl(d:m:s)	date_obs(y-m-d t)	exposure(s)
<input type="checkbox"/>	o-p-v-s	6347	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.008	2005-07-14 19:26:08	63877.6
<input type="checkbox"/>	o-p-v-s	6898	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.152	2006-06-28 23:36:01	14857.4
<input type="checkbox"/>	o-p-v-s	5600	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.188	2005-08-14 09:51:46	37727.6
<input type="checkbox"/>	o-p-v-s	6174	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.152	2005-02-24 06:56:59	46038
<input type="checkbox"/>	o-p-v-s	5601	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.080	2005-07-19 14:26:03	83362.2
<input type="checkbox"/>	o-p-v-s	6347	M 81*	ACIS	HETG	09:55:33.163	+69:03:55.008	2005-07-14 01:44:55	54492.1
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.204	+69:03:55.224	2006-02-08 20:21:15	14764.7
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.216	+69:03:55.224	2006-03-05 23:42:33	14764.7
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.190	+69:03:55.224	2006-04-01 10:38:21	14767.9
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.154	+69:03:55.188	2006-05-14 13:01:03	14767.8
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.080	2006-04-24 08:18:52	14563
<input type="checkbox"/>	o-p-v-s	6899	M 81*	ACIS	HETG	09:55:33.149	+69:03:55.080	2006-07-13 13:41:33	15199.8
<input type="checkbox"/>	o-p-v-s	6897	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.044	2006-06-09 18:14:02	14764.6
<input type="checkbox"/>	o-p-v-s	6900	M 81*	ACIS	HETG	09:55:33.146	+69:03:55.188	2006-07-28 11:10:19	14415.8
<input type="checkbox"/>	o-p-v-s	6901	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.116	2006-08-12 16:15:46	14767.8

Obsid tip gives uniform flux thumbnail



press "go" to operate on selections: limit download plot(combined) view sources

Go

Change Columns



New Search

Help

New feature: quick search option

SEARCH CRITERIA

Quick Search:

Go

SEARCH BY NAME

Search Object

SEARCH BY OBJECT TYPE

Search by object type

SEARCH BY COORDINATE

Search by Coordinates in a number of systems ... [More](#)

SEARCH BY SPECTRAL PROPERTIES

Search by Derived Spectral Properties ... [More](#)

SEARCH BY OBSID

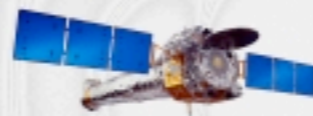
Search by Chandra Observation ID ... [More](#)

SEARCH BY OTHER

Search by other database field(s) ... [More](#)

Enter an obsid list,
or a name string,
or a coordinate.

[Main Page](#)



[Help](#)

New feature: multiple sorts

Click heading for primary sort (click again to reverse order)

Click arrows for secondary sort (up or down)

+/-	Links	<u>▼</u> obsid [▲]	<u>▼</u> object [▲]	<u>▼</u> instrument [▲]	<u>▼</u> grating [▲]	<u>▼</u> ra(h:m:s) [▲]	<u>▼</u> decl(d:m:s) [▲]	<u>▼</u> date_obs(y-m-d t) [▲]	<u>▼</u> exposure(s) [▲]	
<input type="checkbox"/>	o-p-v-s					HETG	09:55:33.178	+69:03:55.008	2005-07-14 19:26:08	63877.6
<input type="checkbox"/>	o-p-v-s					HETG	09:55:33.163	+69:03:55.152	2006-06-28 23:36:01	14857.4
<input type="checkbox"/>	o-p-v-s					HETG	09:55:33.168	+69:03:55.188	2005-08-14 09:51:46	37727.6
<input type="checkbox"/>	o-p-v-s					HETG	09:55:33.170	+69:03:55.152	2005-02-24 06:56:59	46038
<input type="checkbox"/>	o-p-v-s	5601	M 81*	ACIS	HETG	09:55:33.194	+69:03:55.080	2005-07-19 14:26:03	83362.2	
<input type="checkbox"/>	o-p-v-s	6346	M 81*	ACIS	HETG	09:55:33.163	+69:03:55.008	2005-07-14 01:44:55	54492.1	
<input type="checkbox"/>	o-p-v-s	6892	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.080	2006-04-24 08:18:52	14563	
<input type="checkbox"/>	o-p-v-s	6893	M 81*	ACIS	HETG	09:55:33.149	+69:03:55.080	2006-07-13 13:41:33	15199.8	
<input type="checkbox"/>	o-p-v-s	6894	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.044	2006-06-09 18:14:02	14764.6	
<input type="checkbox"/>	o-p-v-s	6896	M 81*	ACIS	HETG	09:55:33.146	+69:03:55.188	2006-07-28 11:10:19	14415.8	
<input type="checkbox"/>	o-p-v-s	6895	M 81*	ACIS	HETG	09:55:33.178	+69:03:55.080	2006-04-24 08:18:52	14563	
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<input type="checkbox"/>	o-p-v-s	6897	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.044	2006-06-09 18:14:02	14764.6	
<input type="checkbox"/>	o-p-v-s	6900	M 81*	ACIS	HETG	09:55:33.146	+69:03:55.188	2006-07-28 11:10:19	14415.8	
<input type="checkbox"/>	o-p-v-s	6901	M 81*	ACIS	HETG	09:55:33.156	+69:03:55.116	2006-08-12 16:15:46	14767.8	

press "go" to operate on selections: limit download plot(combined) view sources

Go

Change Columns



New Search

Help

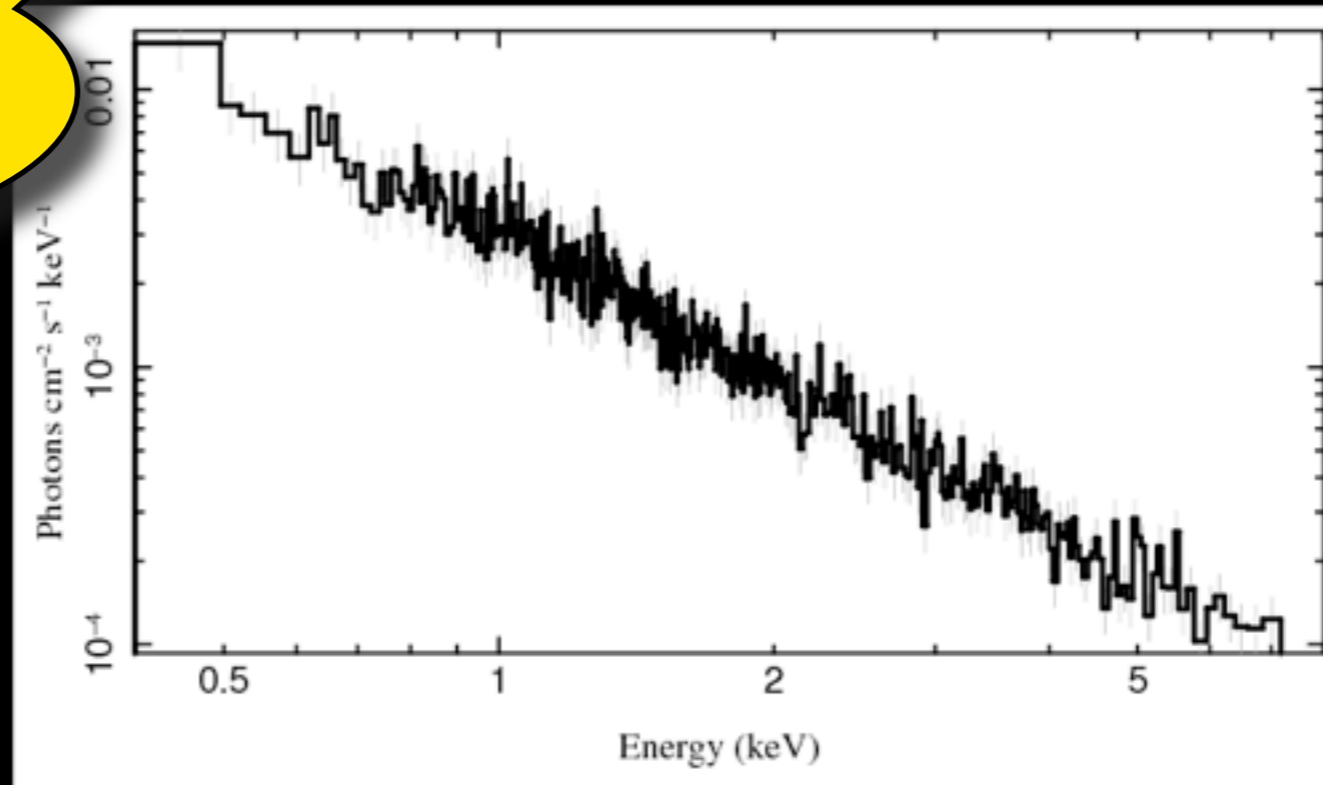
Preview pages

ObsID 6174 ::: M 81* ::: 46 ks ::: 2005-02-24 06:

VV report for obsid 6174 - M 81*

Review Status: warning

Comments: Comment: Multiple sources; extraction is of M81*. Warning: There is a bright off-axis source whose MEG spectrum crosses HEG +1 near 15A and will cause some contamination.



V&V report and flux spectrum are on the first summary page

Select thumbnails to view pre-computed summary plots.

VV Report

Customize Plots



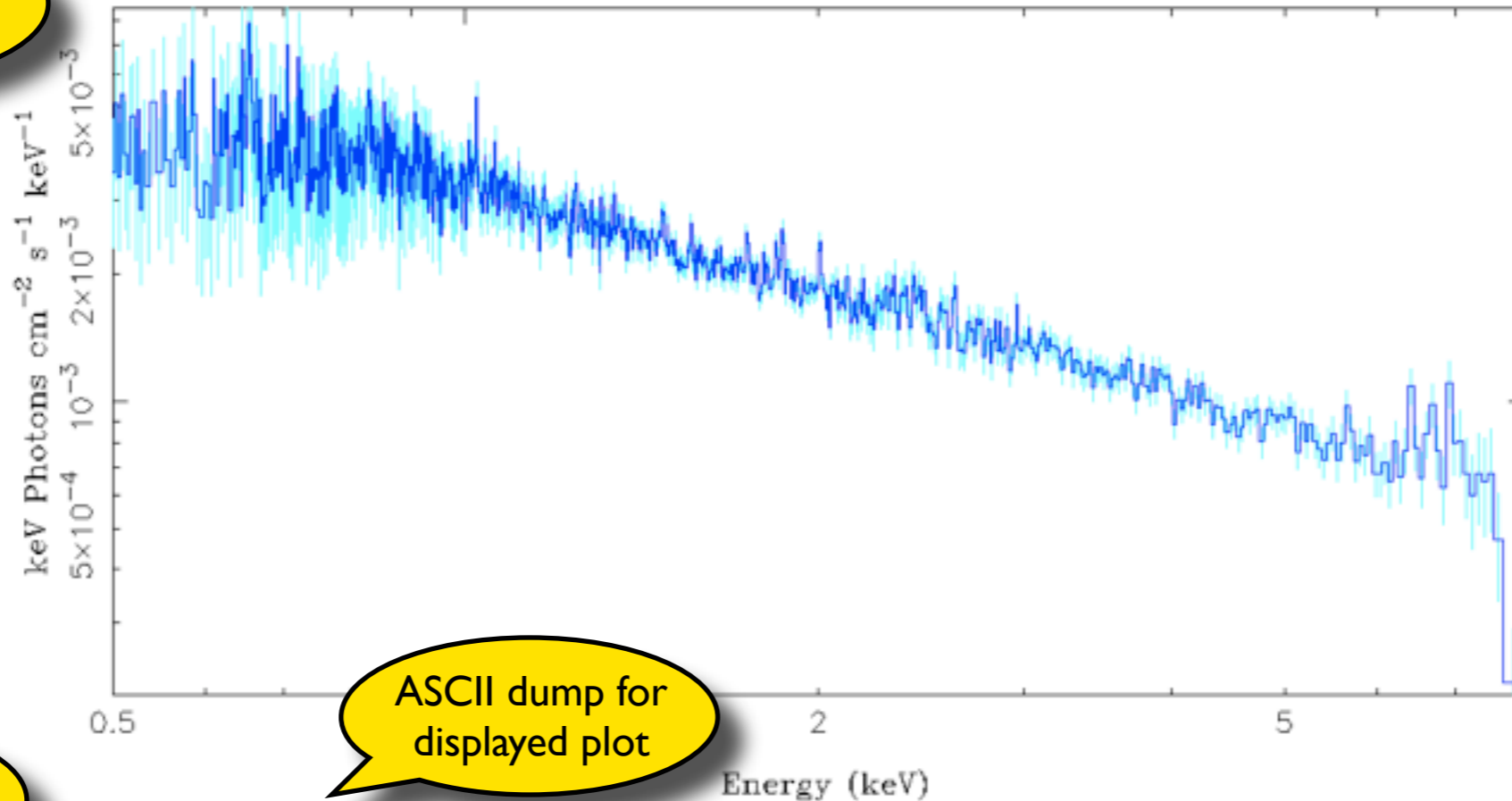
Spectral Props

Help

Interactive plotting features

Combined Obsids: 6347,6898,5600,6174,5601,6346,6892,6893,6894,6896,6895,6899,6897,6900,6901

Multiple obsids,
combined



ASCII dump for
displayed plot

Choice of ranges,
units & scales

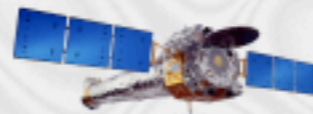
[Download Ascii dump](#) | [View isis plotting commands](#) | [View plotting error log](#)

Dynamic
binning

Plot:	<input type="text" value="F<sub>X</sub>"/>	X-Units:	<input type="text" value="keV"/>	Y-Scale:	<input type="text" value="Photons"/>	<input checked="" type="checkbox"/> xLog	<input checked="" type="checkbox"/> yLog	<input checked="" type="checkbox"/> errbars	<input checked="" type="checkbox"/> Bin	
X min	<input type="text" value="0.5"/>	Y min	<input type="text"/>	MEG:	<input checked="" type="checkbox"/> +1	<input checked="" type="checkbox"/> -1	<input checked="" type="checkbox"/> combine	min-S/N	<input type="text" value="5"/>	<input type="button" value="replot"/>
X max	<input type="text" value="8"/>	Y max	<input type="text"/>	HEG:	<input checked="" type="checkbox"/> +1	<input checked="" type="checkbox"/> -1		min-Ch	<input type="text" value="4"/>	<input type="button" value="reset"/>

Multiple or
combined orders

Back



Products download

+/-	Links	obsid	object	instrument	grating	ra(h:m:s)	decl(d:m:s)	date_obs(y-m-d)	exposure(s)
<input checked="" type="checkbox"/>	o-p-v-s	6901	M 81					2006-08-12 05:46	14767.8
<input checked="" type="checkbox"/>	o-p-v-s	6900	M 81					2006-07-28 00:19	14415.8
<input checked="" type="checkbox"/>	o-p-v-s	6899	M 81					2006-07-13 01:33	15199.8
<input checked="" type="checkbox"/>	o-p-v-s	6898	M 81					2006-06-28 05:01	14857.4
<input checked="" type="checkbox"/>	o-p-v-s	6897	M 81					2006-06-09 04:02	14764.6
<input checked="" type="checkbox"/>	o-p-v-s	6896	M 81					2006-05-14 01:03	14767.8
<input checked="" type="checkbox"/>	o-p-v-s	6895	M 81					2006-04-24 03:52	14563
<input checked="" type="checkbox"/>	o-p-v-s	6894	M 81*	ACIS	HETG	09:55:33.190	+69:03:55.224	2006-04-01 10:38:21	14767.9
<input checked="" type="checkbox"/>	o-p-v-s	6893	M 81*	ACIS	HETG	09:55:33.216	+69:03:55.224	2006-03-05 23:42:33	14764.7

Please select the products you wish to download:

DEFAULTS:

PHA2 (Level 2 counts spectrum file) RMF (Response matrix file)
 ARF (Ancillary response file)

OTHER:

EVT2 (Level 2 event file) LTC (Binned light curve file)
 OBSPAR (Observation parameter file) SUM (Summary image/tables)

email address:

Please note that it may take several moments after hitting the submit button to calculate and compile your request depending on the number of extractions selected. Also, note that there is a limit imposed on the size of downloads (250000 kB)

press "go" to operate on selections: limit download plot(combined) view sources



Catalog Updates

Automated queries for new public data occur nightly.
Retrieval, processing, and notification of queued products for V&V are automatic.

Beta ADMIN

+/-	Links	obsid	id	review	vw_sci	reject	object	instrument	grating	zo_method	date_obs (y-m-d t)	tgcat_version
<input type="checkbox"/>	s o p	678	1864	proc error	Dave Huenemoerder	Y	Rapid Burster (4U 1730-335)	ACIS	HETG	tgdetect	1999-10-24 16:36:42	1.3.3
<input checked="" type="checkbox"/>	s o p	10622	2208	queued	Dave Huenemoerder	Y	HZ 43	HRC	LETG	tgdetect	2009-03-18 06:17:02	1.3.3

press "go" to operate on selections: limit assign to: Mike Nowak requeue view sources

Go/Refresh

Change Columns



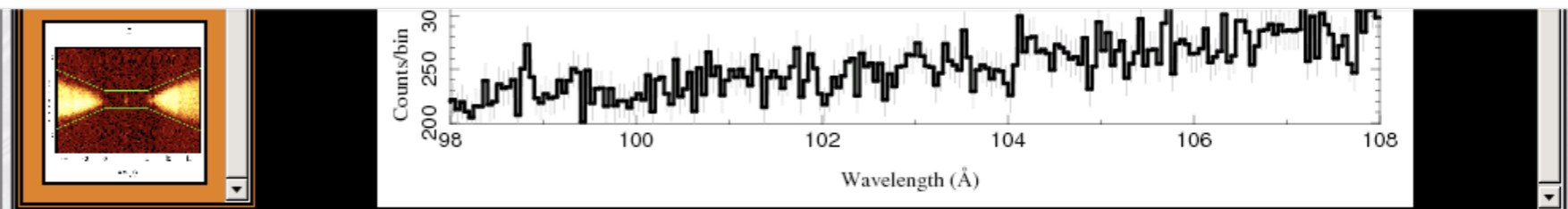
New Search

Queue

Params

SIMBAD assignments: an automated guess is made based on extracted coordinates, but manual review is required.

Reprocessing: all extraction parameters are saved (and backed-up). Reprocessing can be done easily (as required by calibration or software updates).



GrpID: 2208 | Obsid: 10622 | ID: 2208 | VV Scientist: Dave Huenemoerder | Assigned Method: non-specified | Method Used: [tgdetect](#)

Rejected?: Y

review status: good bad warn

[show queue form](#)

admin notes:

NOTES to tgcat admin go here

user comment:

COMMENTS and WARNINGS to the user go here.

Submit/refresh

spec

log

info

source

Other work:

Processing script enhancements: better support for detection methods, source coordinates, extraction regions.

Documentation updated.

Cross-links added (CSC, BiRD, X-Atlas, HotGas, MAST)

Future work:

Extract the 6l error cases;

Combine multiple observations (when appropriate);

Serendipitous source extractions (admin comments saved during V&V);

Script enhancements:

better support for extended sources (wide extraction regions);

support for time-filtering.

Extract zeroth order spectra and responses;

Write threads for higher order HETG response generation;

Respond to user's requests.

Responsible parties:

Overall direction; processing scripts: David Huenemoerder

Database and web design & implementation: Arik Mitschang

Object tables: Dan Dewey, Joy Nichols, Doug Morgan, Norbert Schulz

V&V marathon: Joy Nichols, Dan Dewey, John Houck, David Huenemoerder

Interactive plotting: Mike Nowak, Arik Mitschang

General design, review, and testing: John Davis, Dan Dewey, John Houck, Herman Marshall, Joy Nichols, Mike Noble, Mike Nowak, Norbert Schulz