

XMM Radiation Environment Workshop

XMM Science Operations Centre

Villavieja Madrid

November 29 – December 1, 2000

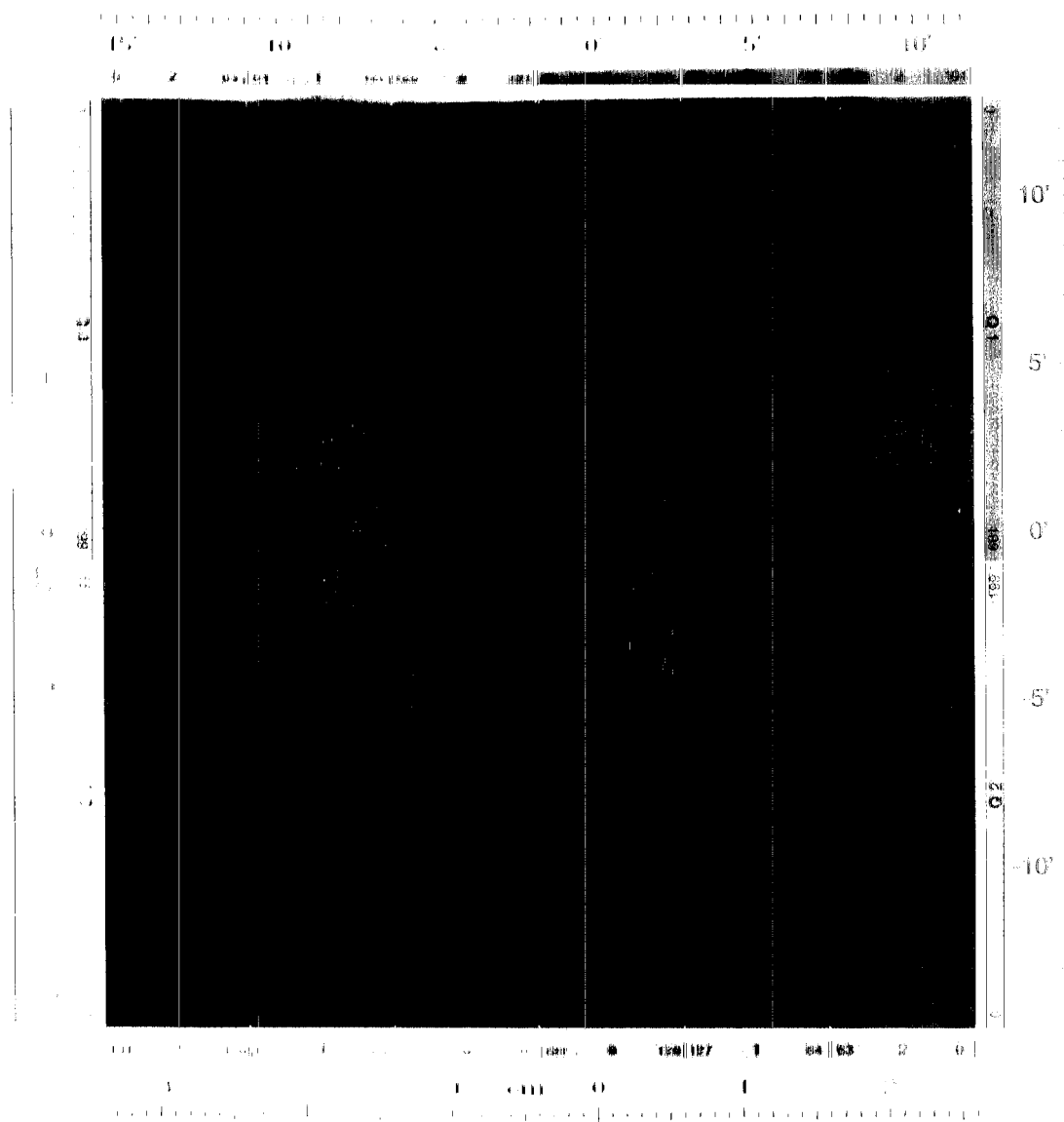
Monitoring the CTE of the EPIC-pn camera in orbit

Ronald Dennerl

Max-Planck-Institut für extraterrestrische Physik

Giesenbachstraße

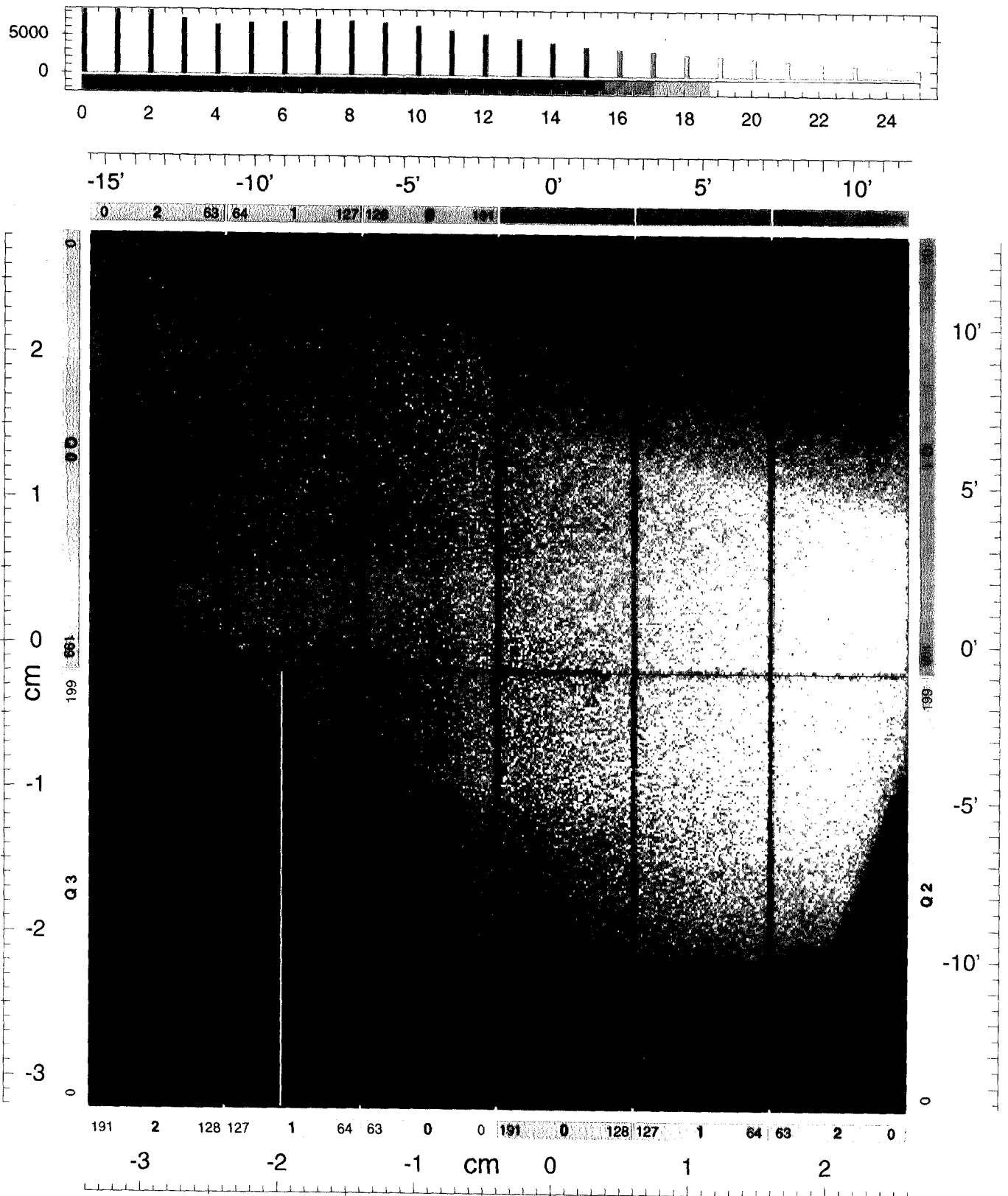
D-85748 Garching, Germany



XMM / EPIC pn

pn023001_417_*_map.fits

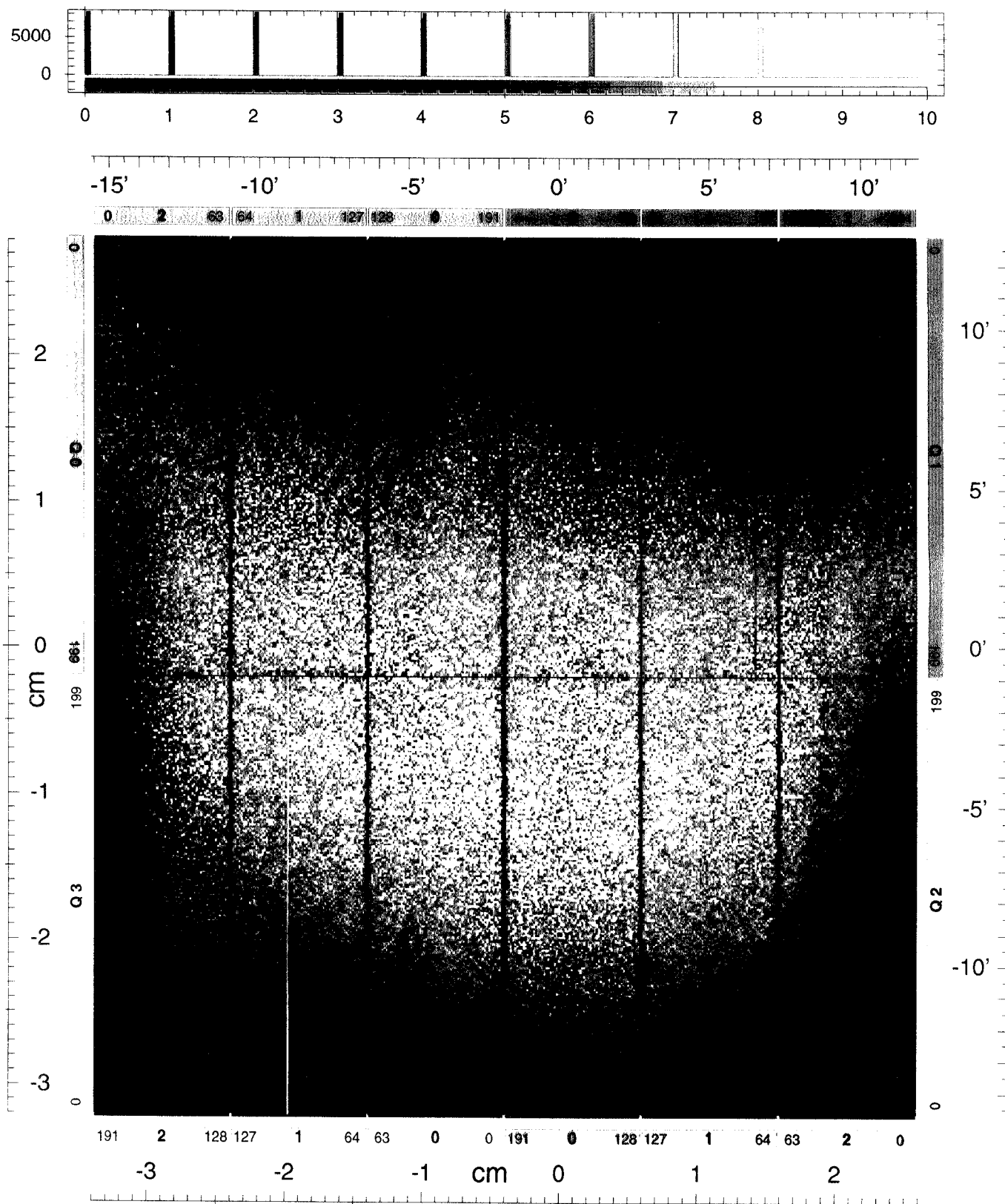
Mn-K (5.5 - 7.0 keV, ph 250-350c)



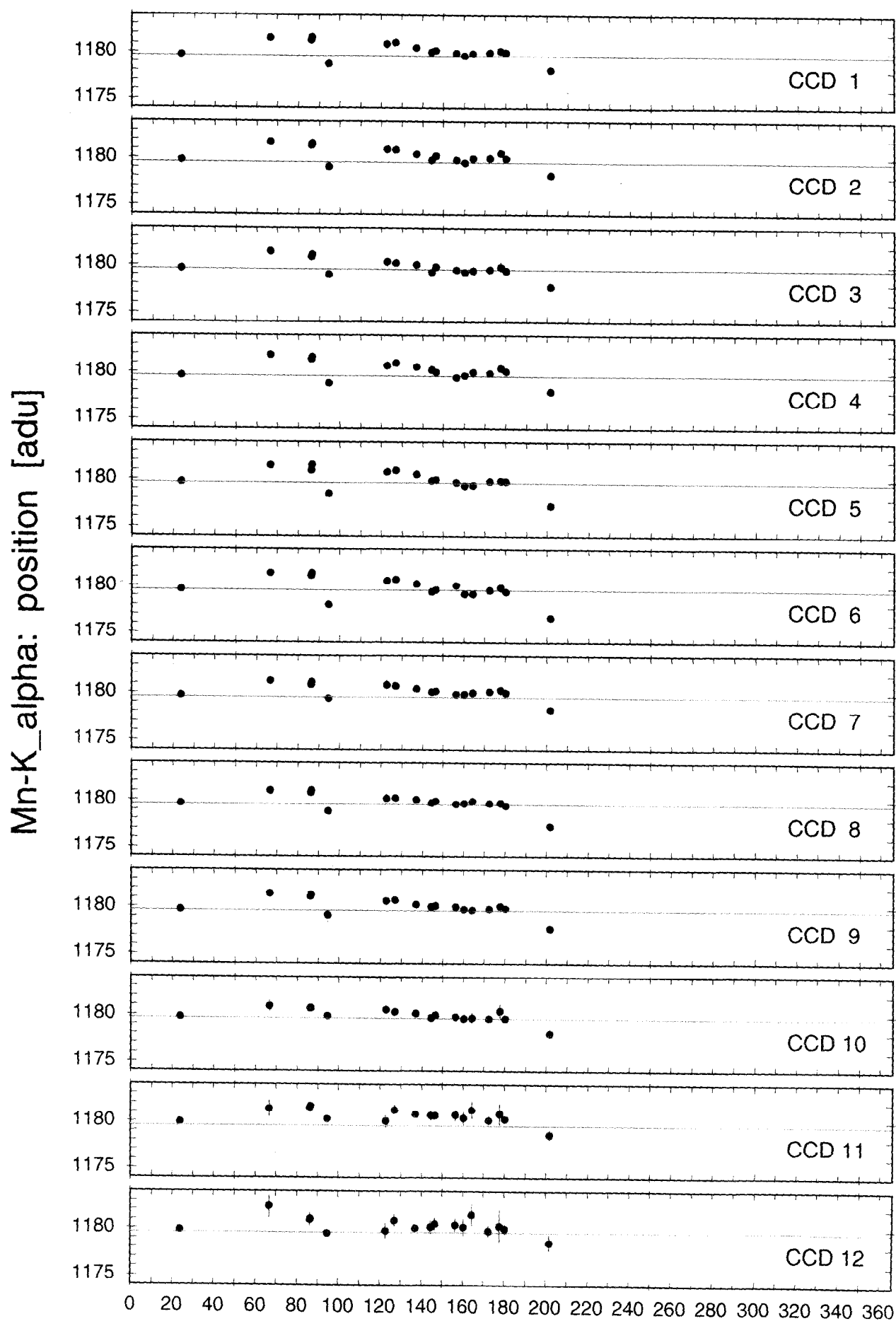
XMM / EPIC pn

pn023001_417_*_map.fits

Al-K (1.25 - 1.75 keV, ph 250-350c)

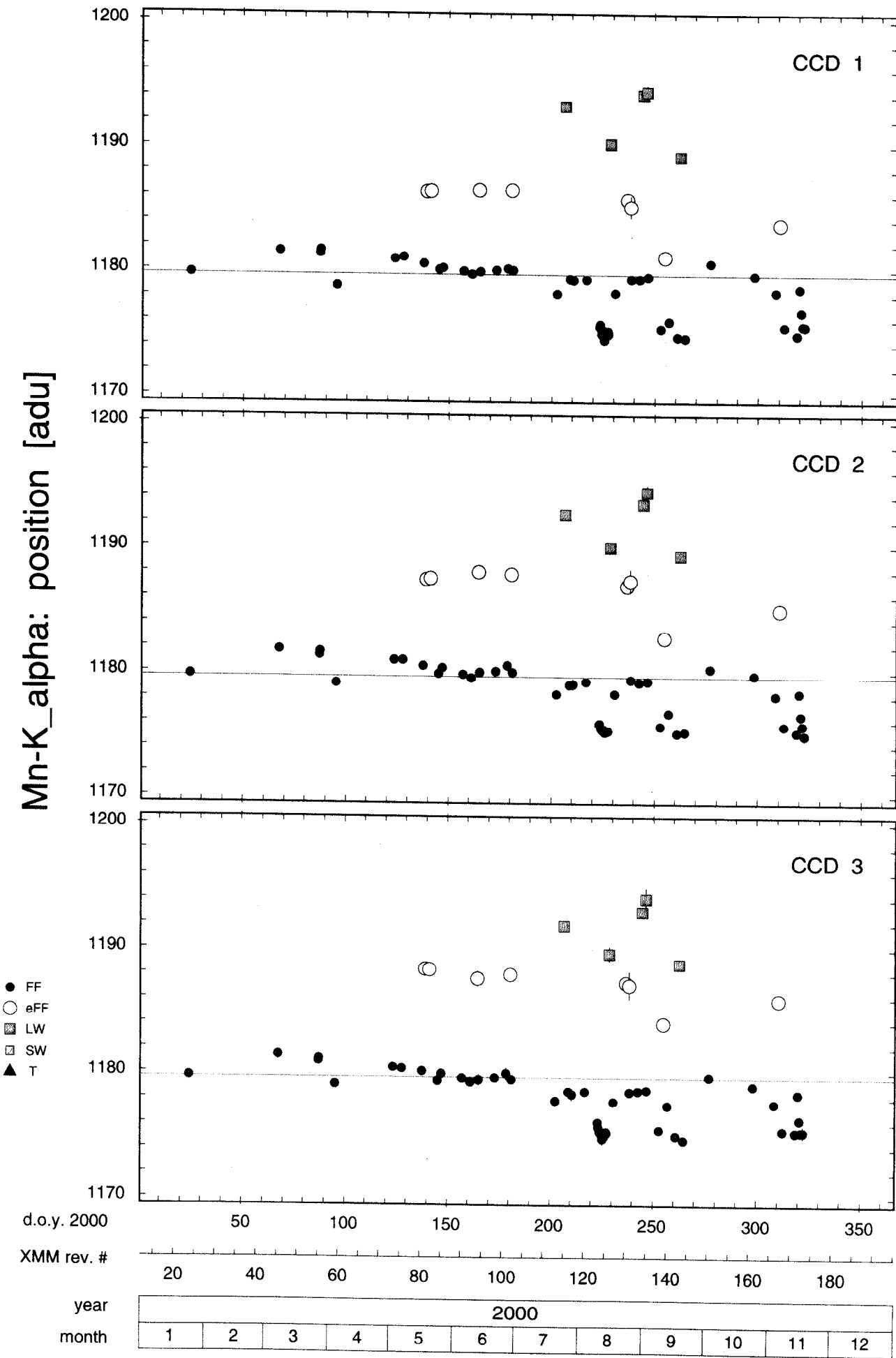


XMM - Newton / EPIC pn internal calibration source

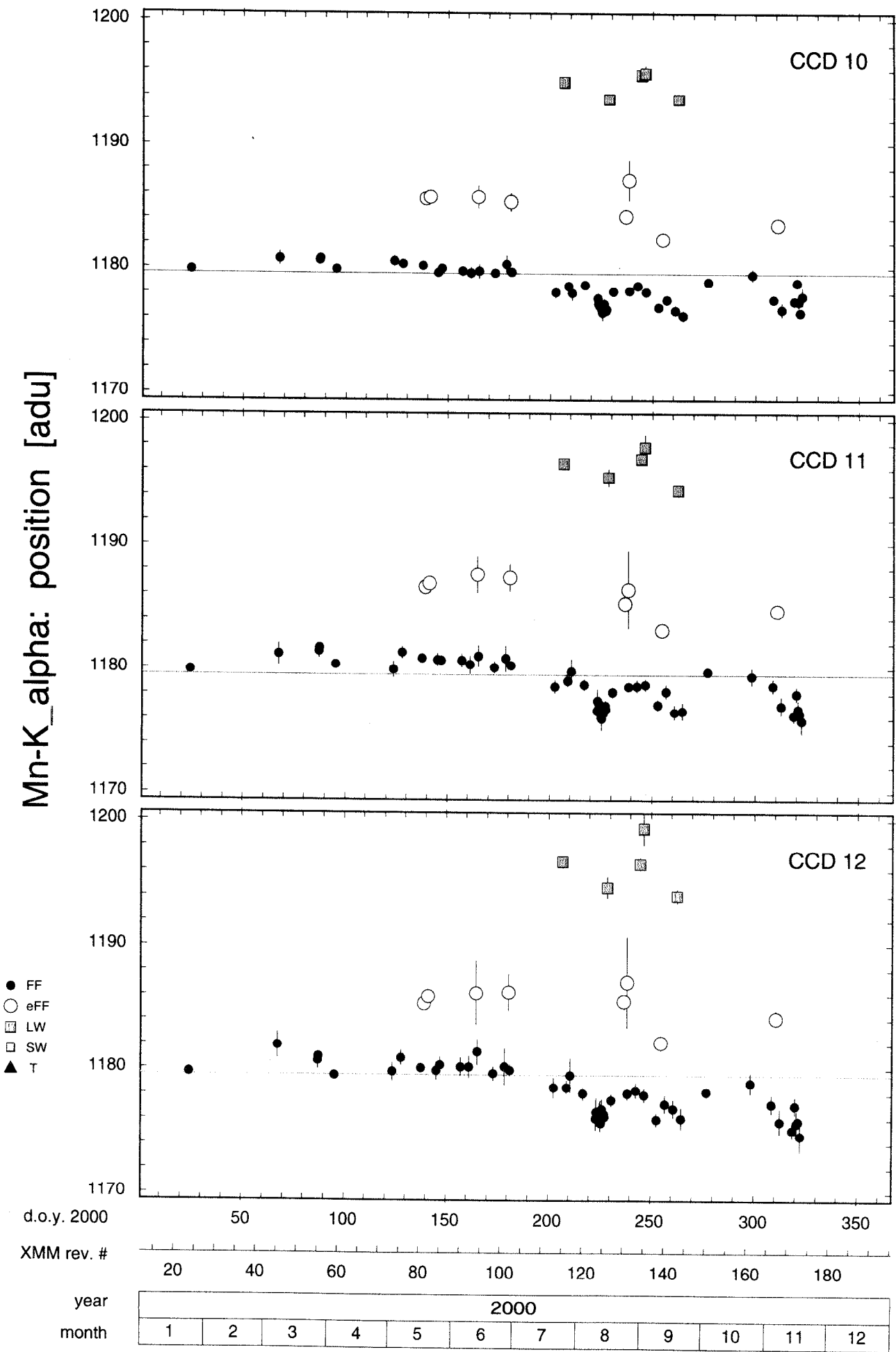


XMM - Newton / EPIC pn

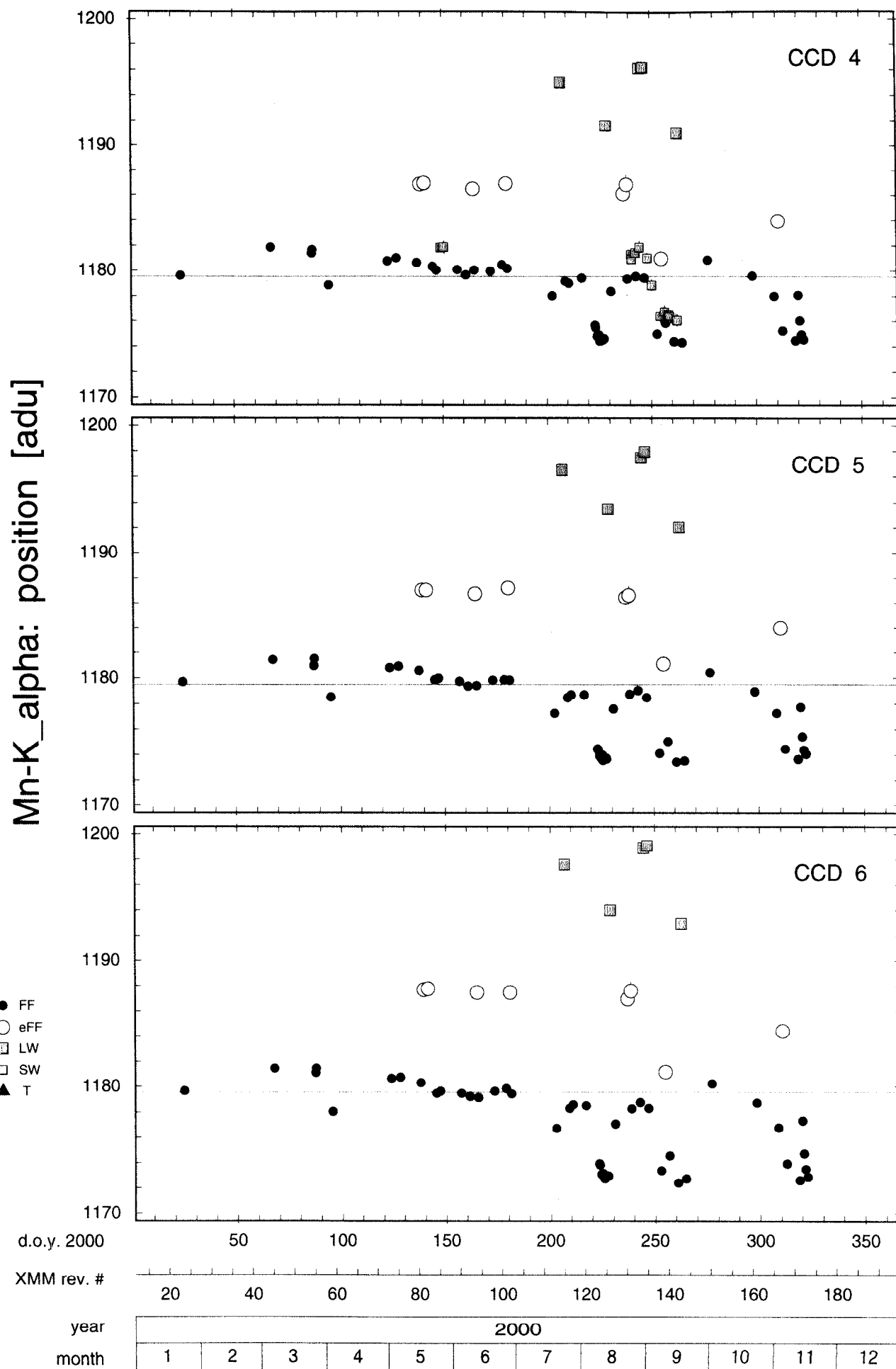
internal calibration source

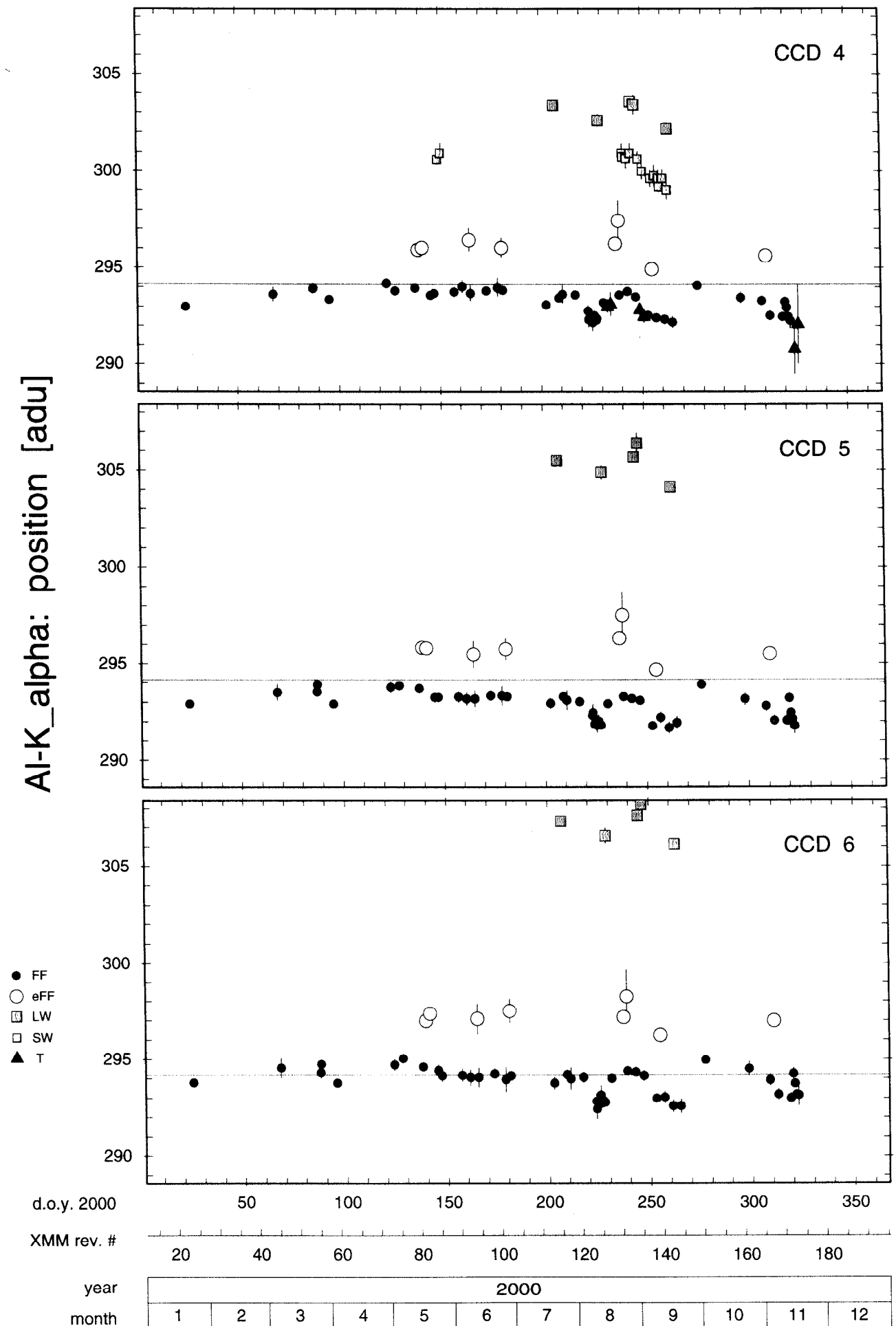


XMM - Newton / EPIC pn internal calibration source



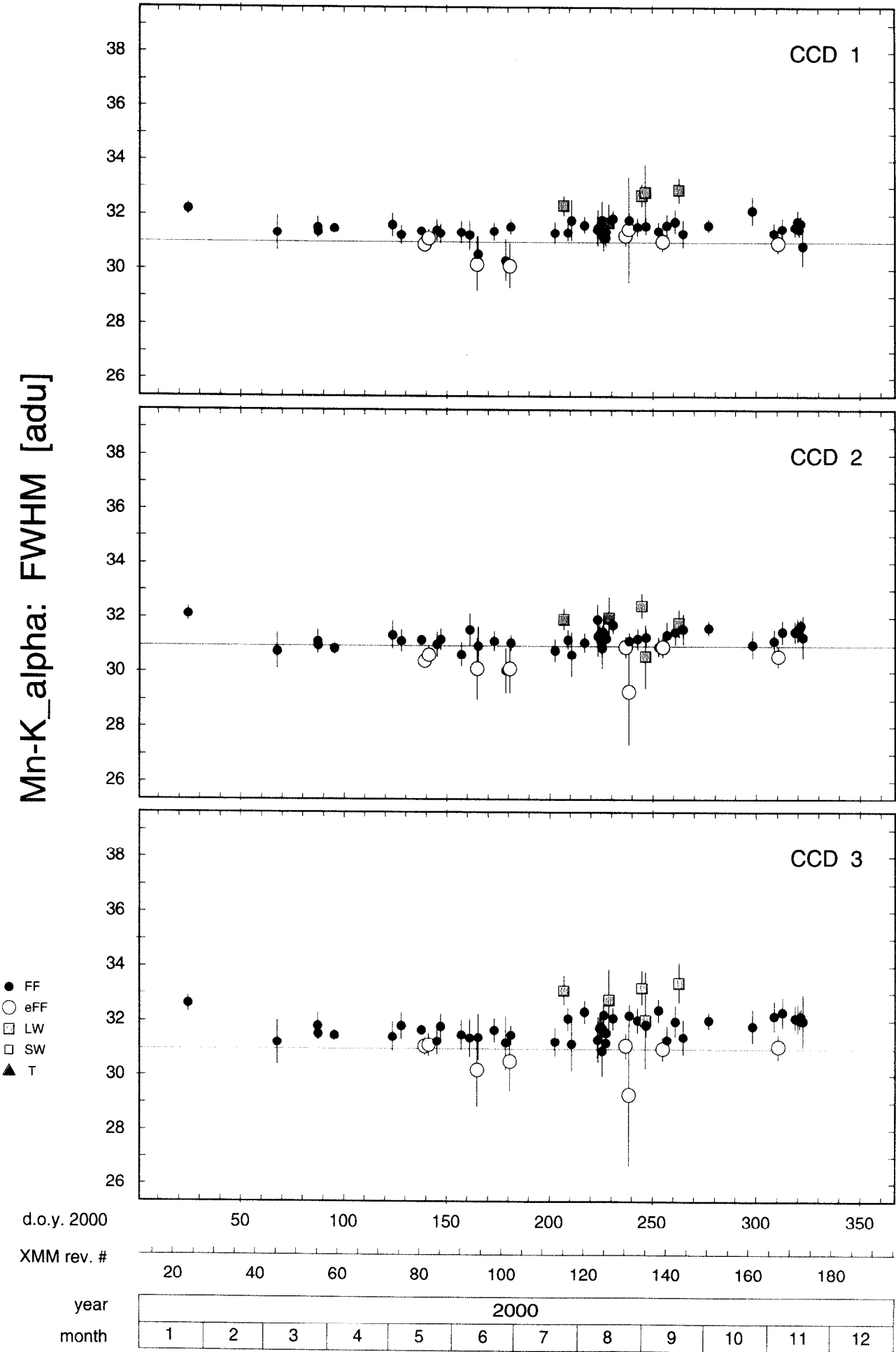
XMM - Newton / EPIC pn internal calibration source





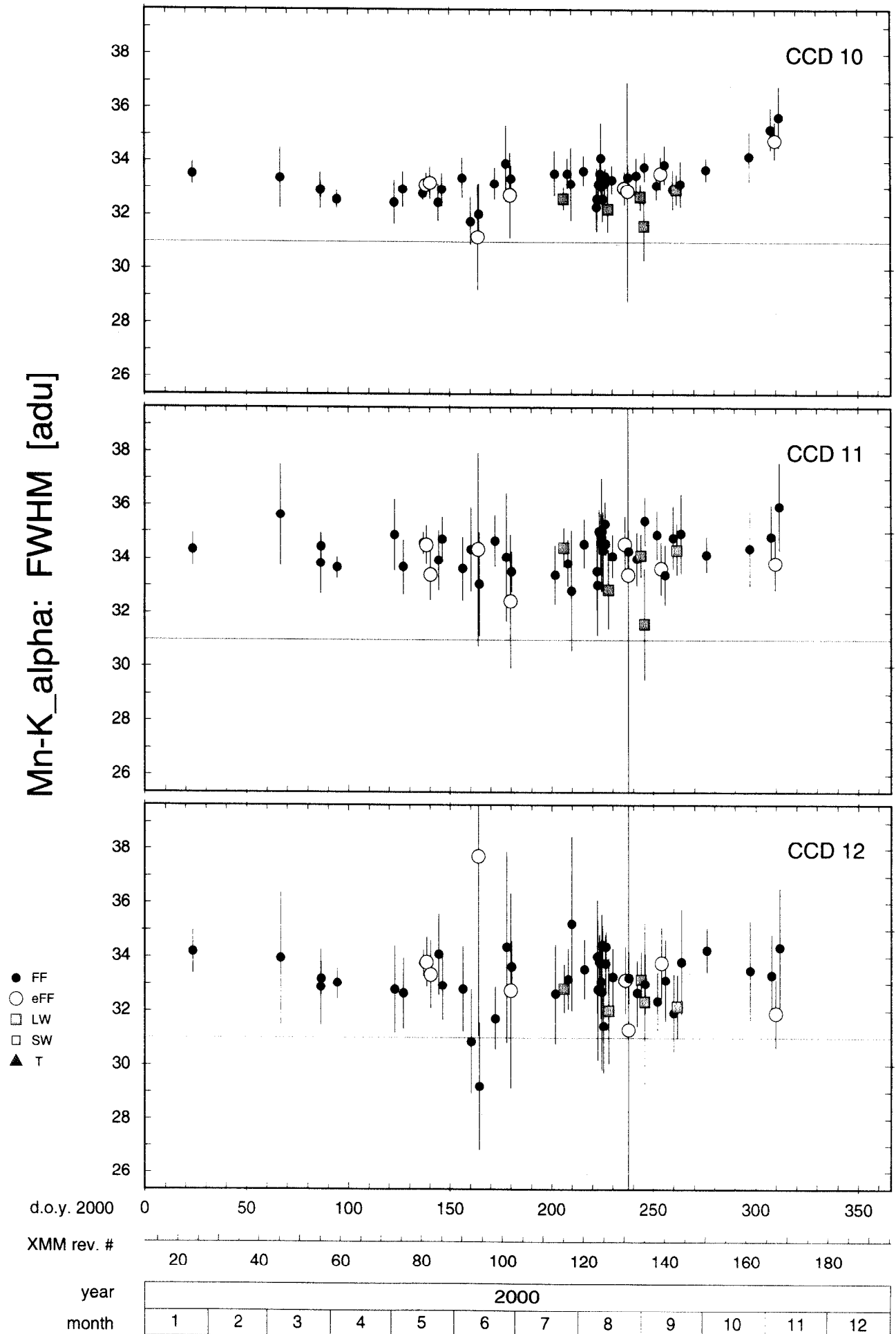
XMM - Newton / EPIC pn

internal calibration source

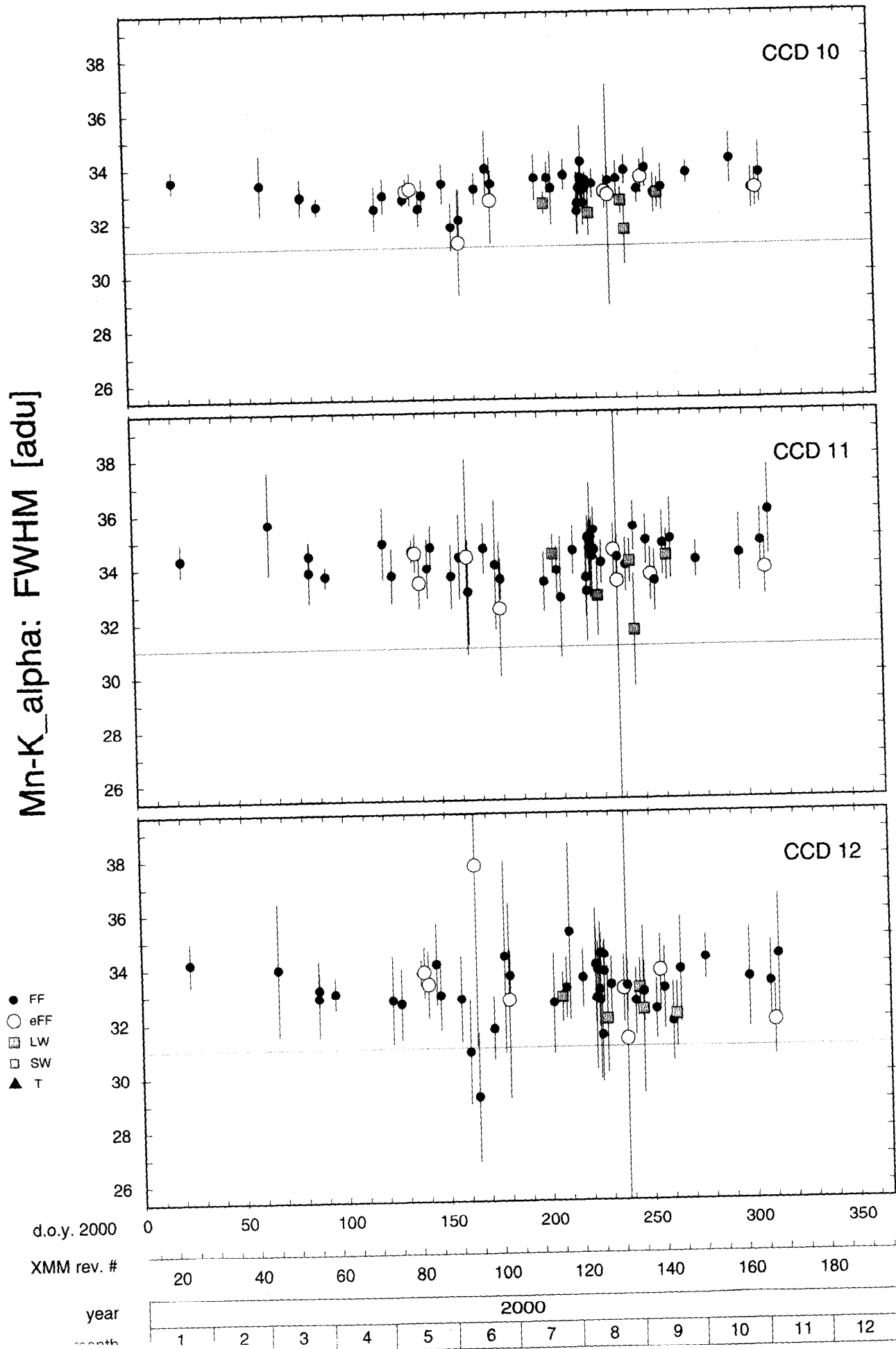


XMM - Newton / EPIC pn

internal calibration source

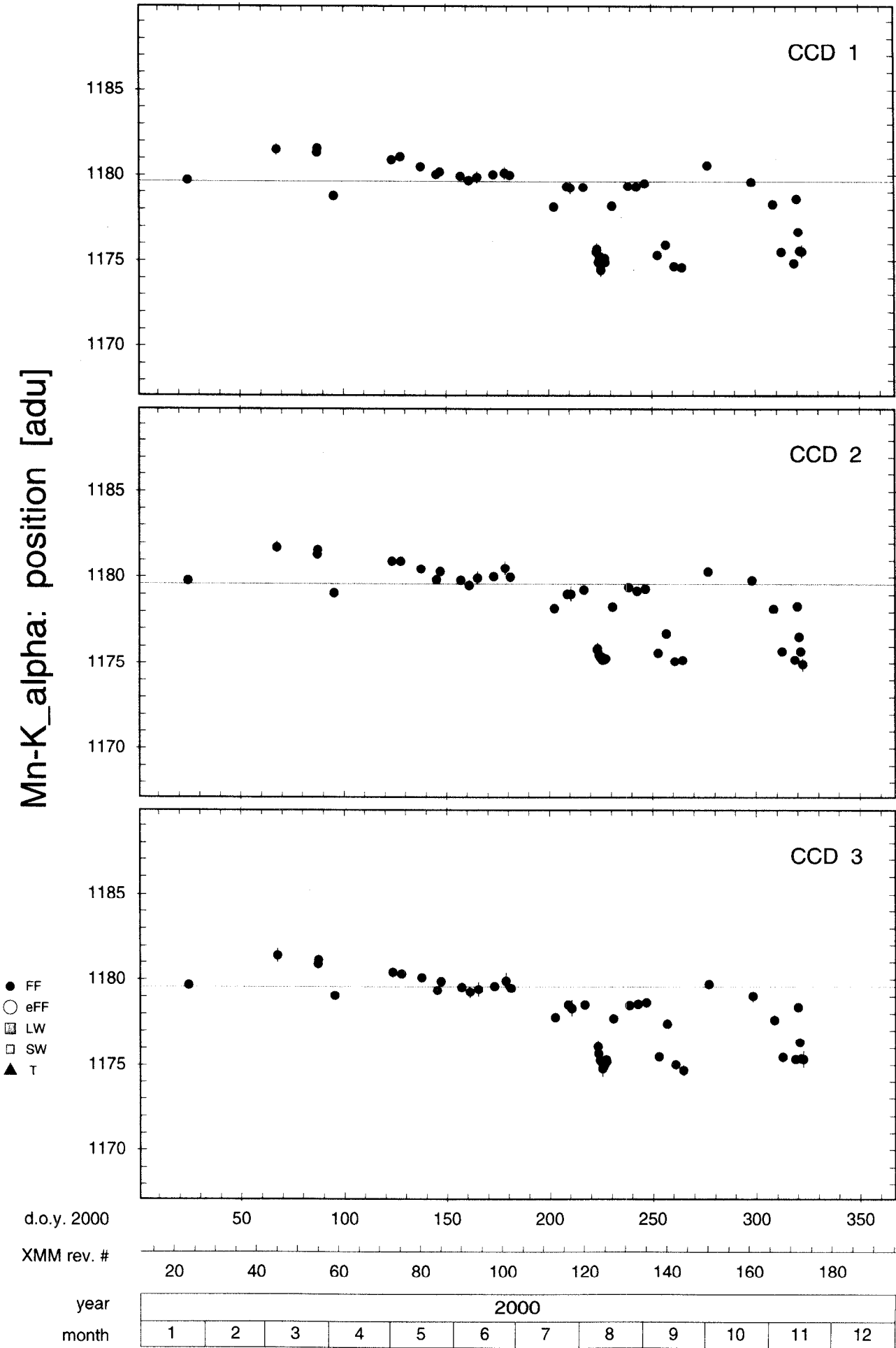


XMM - Newton / EPIC pn internal calibration source

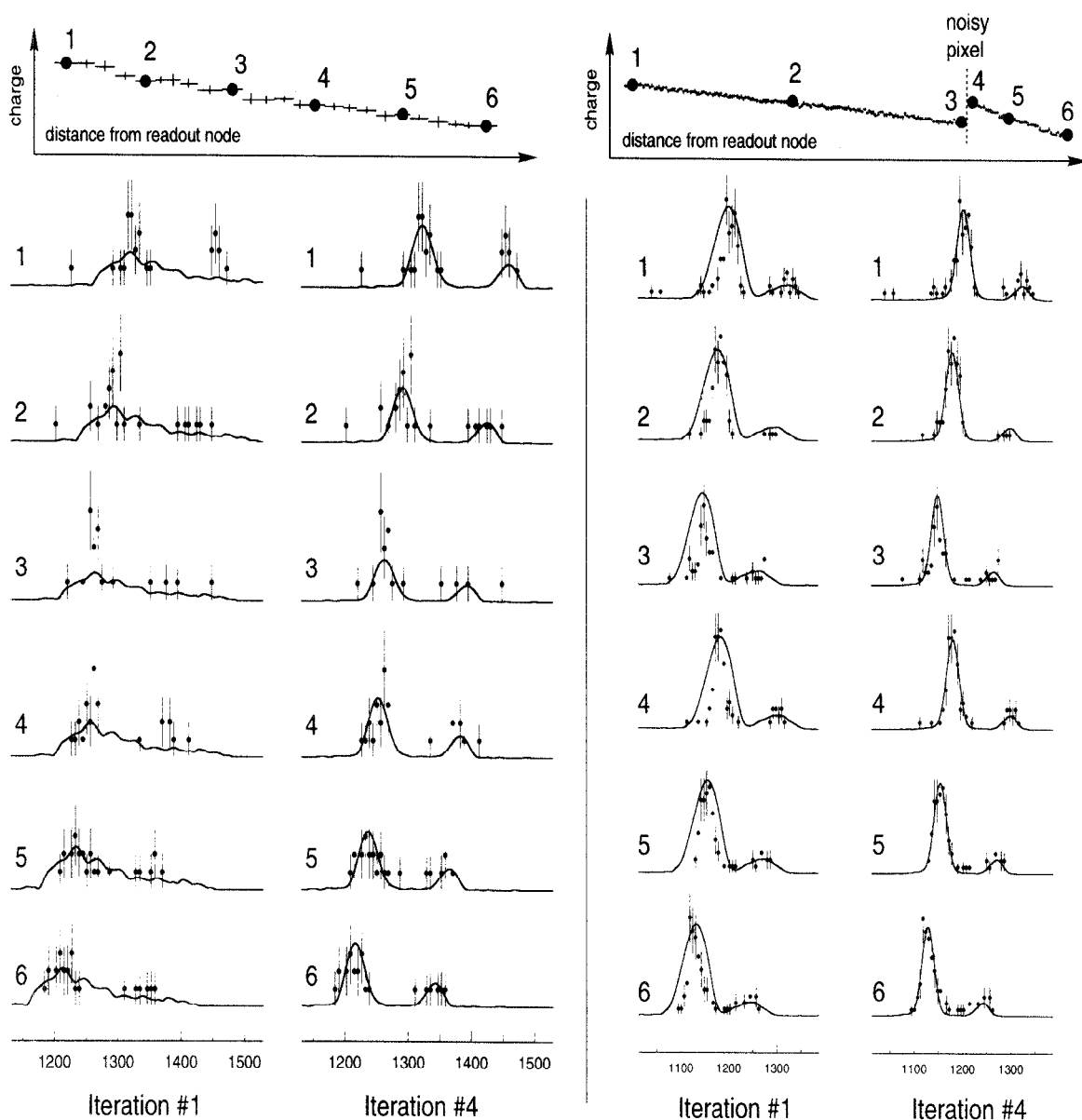


XMM - Newton / EPIC pn

internal calibration source



Charge loss determination with the template cross correlation method



pn023001_417_0_

64	60	
65	58	
66	59	
67	60	
68	56	
69	63	
70	61	
71	57	
72	55	
73	60	
74	57	
75	57	
76	52	
77	61	
78	65	
79	56	
80	56	
81	58	
82	63	
83	57	
84	53	
85	53	
86	62	
87	63	
88	55	
89	66	
90	61	
91	59	
92	60	

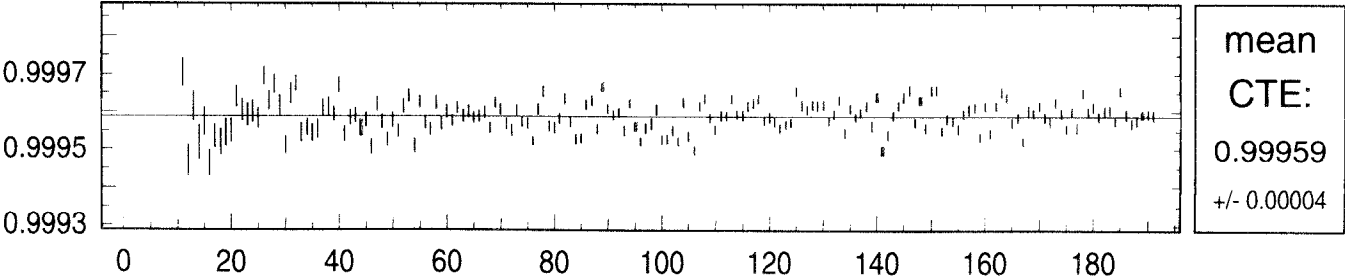
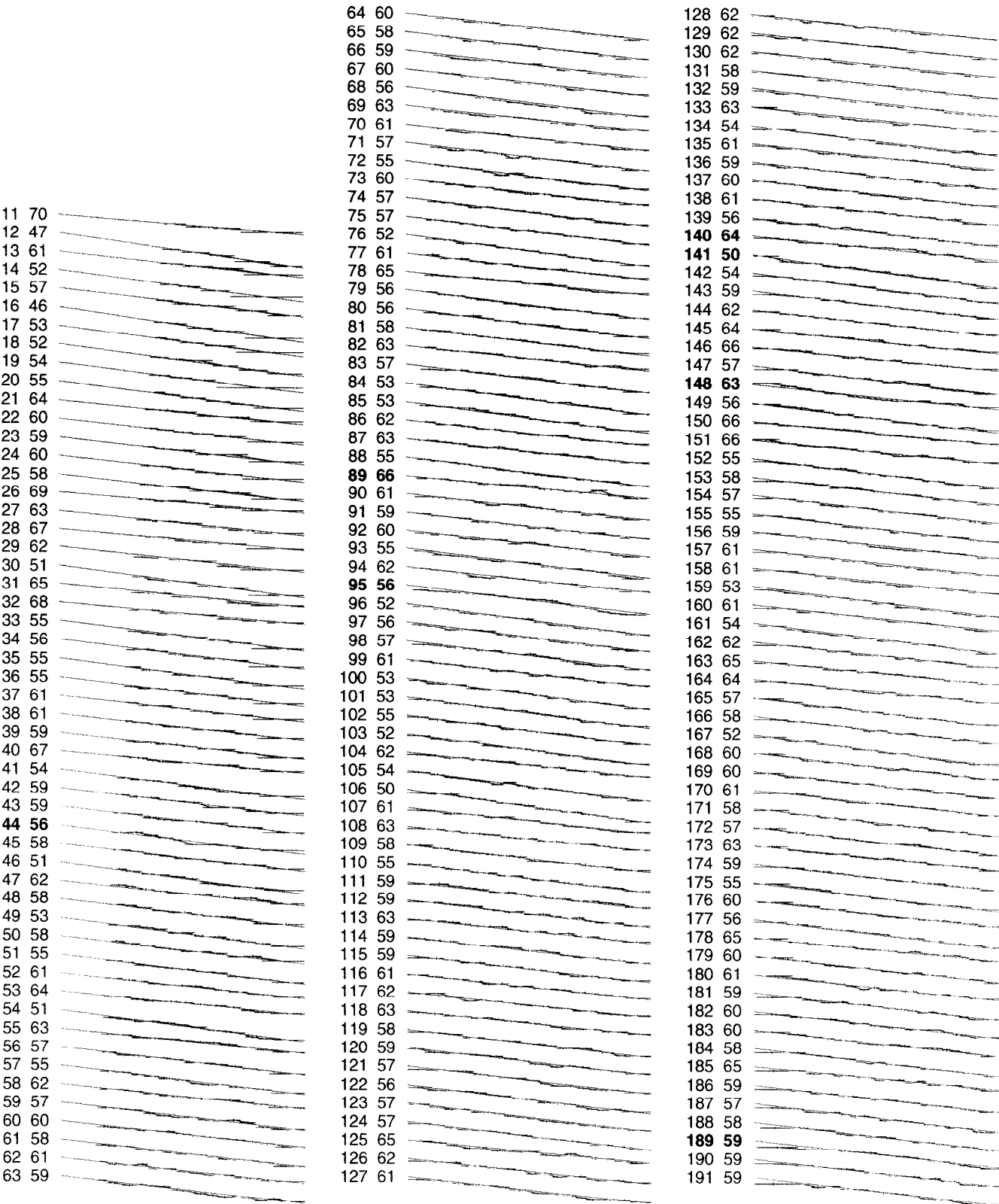
bu152101_012_0

	04 29
	02 01
	00 29
	72 70
	08 24
	00 20
	70 29
	71 27
	25 23
	73 28
	74 20
	72 27
	70 23
	77 00
	78 01
	79 20
	80 22
	81 27
	82 01
	83 27
	84 24
	82 24
	80 01
	87 20
	88 22
	89 00
	90 01
	91 28
	92 00

XMM - EPIC

pn023001_417_0_FS

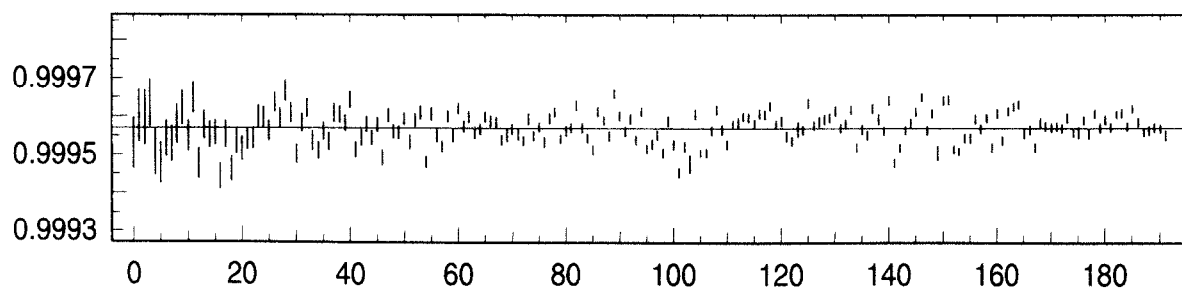
CTE



XMM - EPIC

pn172301_sum_0_FS

CTE

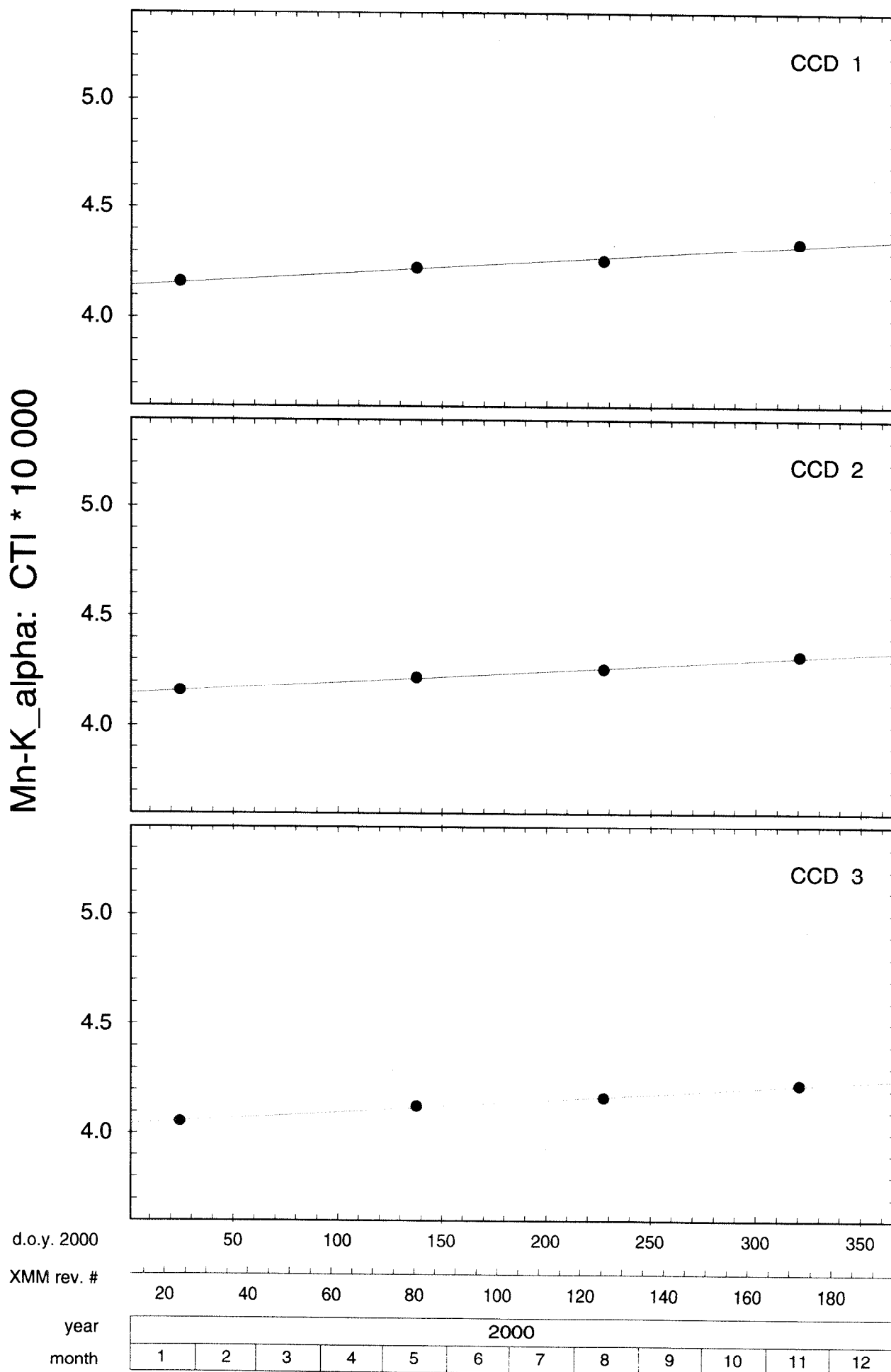


mean
CTE:
0.99957
± 0.00004

XMM - Newton / EPIC pn

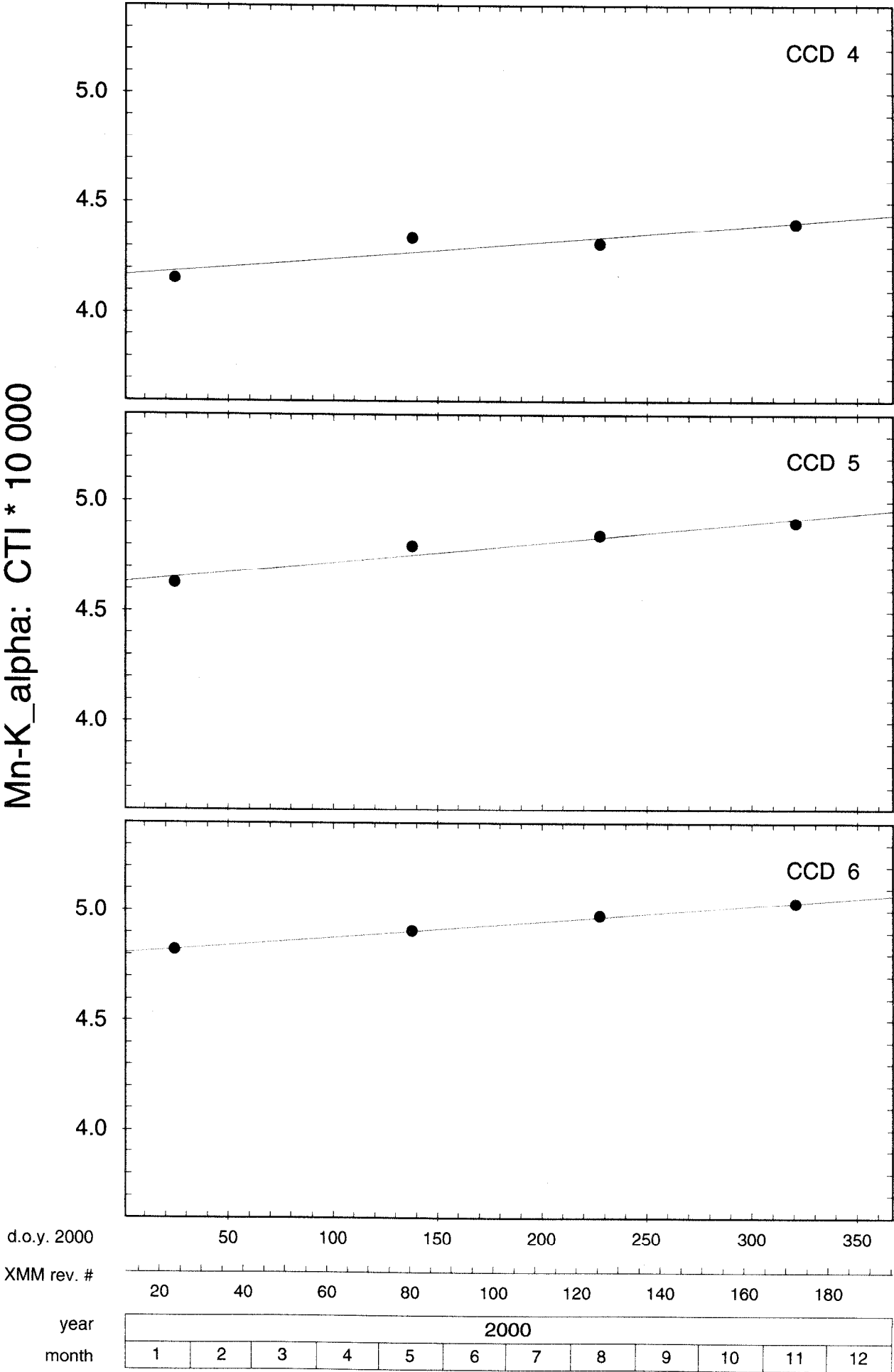
internal calibration source

Mn-K_alpha: CTI * 10 000

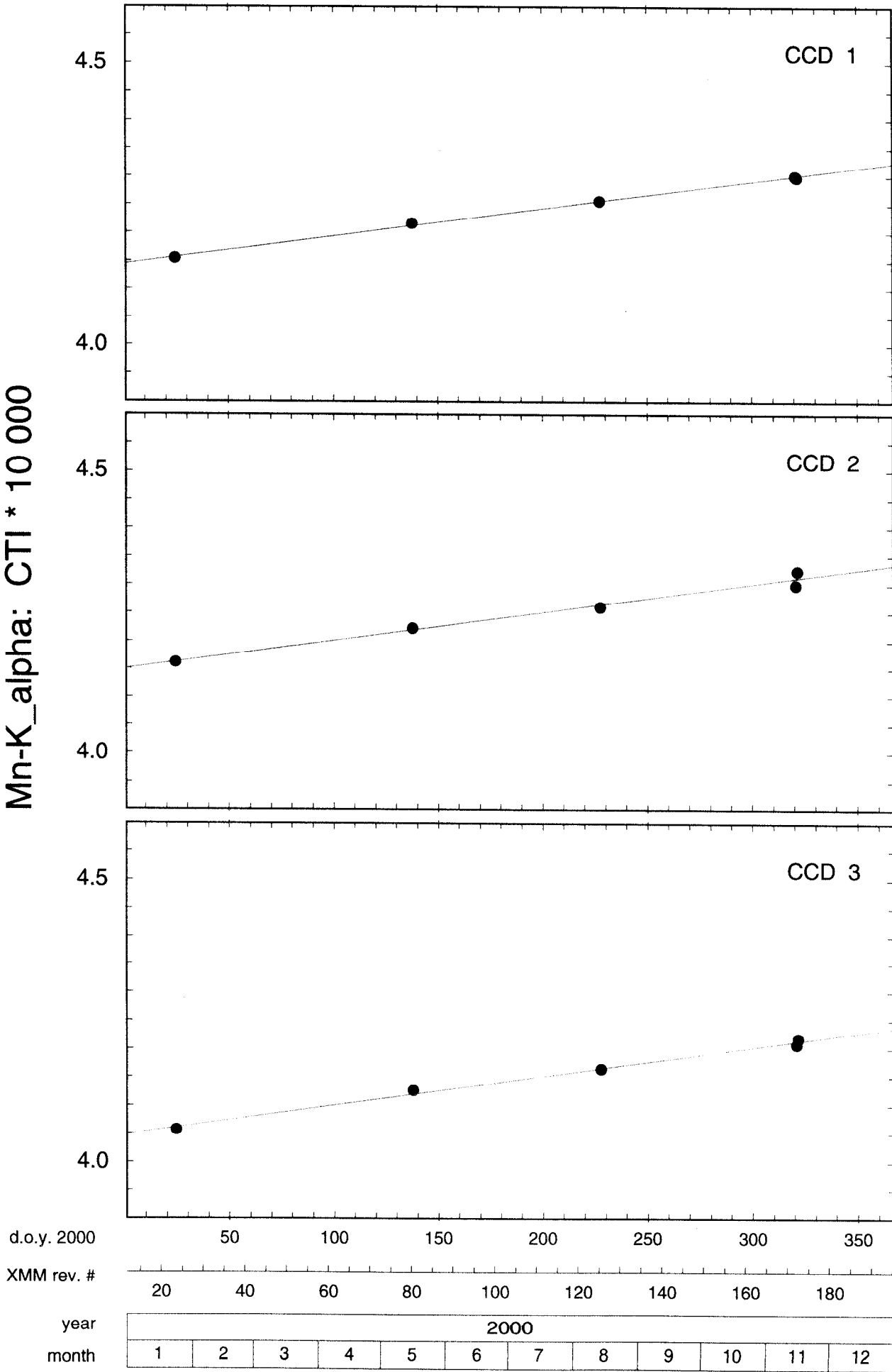


XMM - Newton / EPIC pn

internal calibration source

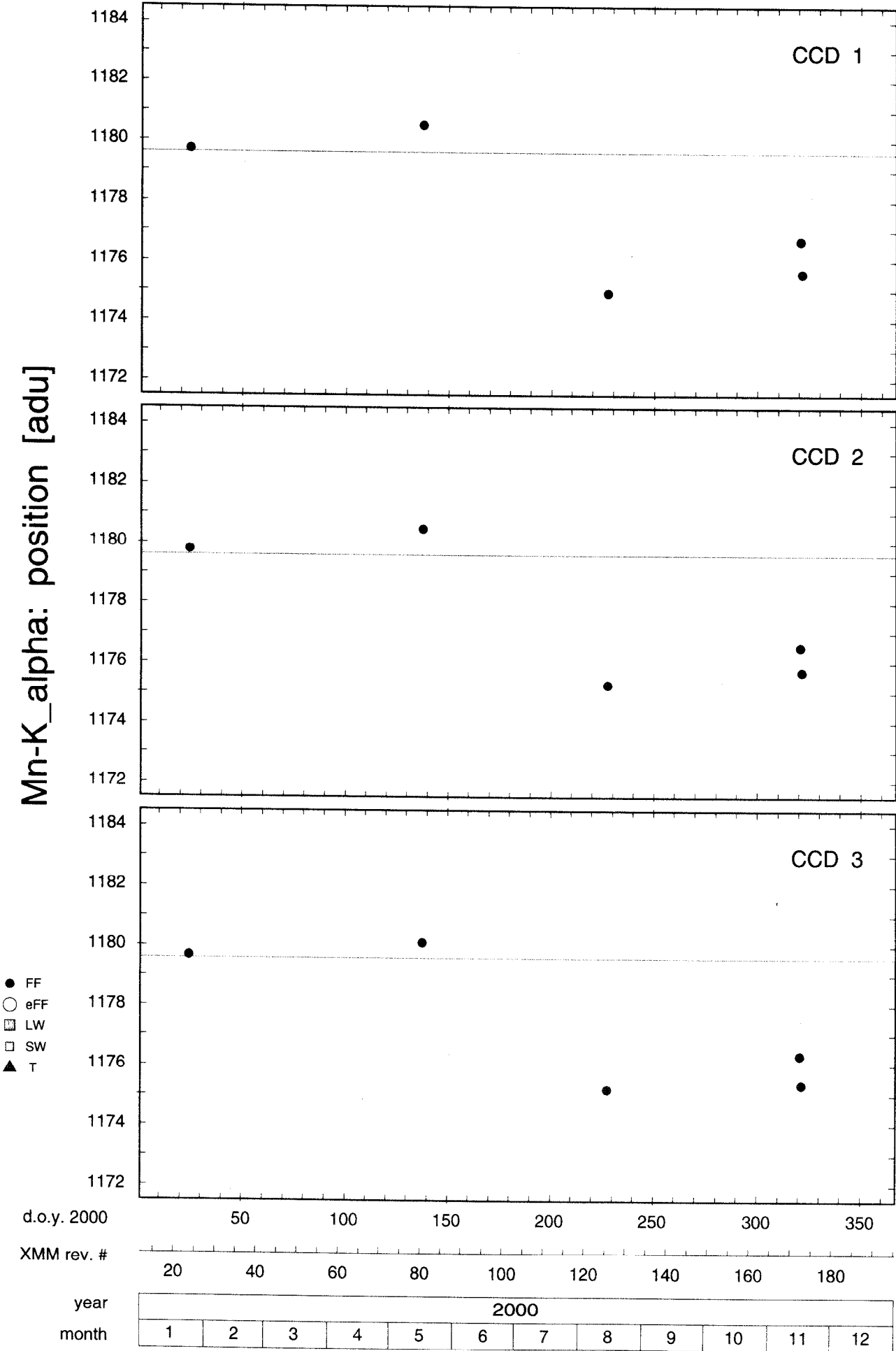


Mn-K_alpha: CTI * 10 000



XMM - Newton / EPIC pn

internal calibration source



XMM - Newton / EPIC pn internal calibration source

