

## Natural Thermoluminescence (NTL) Data for Antarctic Meteorites

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The measurement and data reduction methods were described by Hasan et al. (1987, Proc. 17th LPSC E703-E709; 1989, LPSC XX, 383-384). For meteorites whose NTL lies between 5 and 100 krad, the natural TL is related primarily to terrestrial age. Samples with NTL <5 krad have TL below that which can reasonably be ascribed to long terrestrial ages. Such meteorites have had their TL lowered by heating within the past million years or so (by close solar passage, shock heating, or atmospheric entry), exacerbated, in the case of certain achondrite classes, by "anomalous fading". We suggest that meteorites with NTL > 100 krad are candidates for an unusual history involving high radiation doses and/or low temperatures. NTL data for 40 Allan Hills meteorites collected by EUROMET in 1988 have been published in Meteorical Bulletin 71 (Meteoritics 26:3). (February 1992 data set).

Sample	Class	NTL [krad at 250 deg. C]	Sample	Class	NTL [krad at 250 deg. C]
EET90020	EUC	1.4 ± 0.1	EET90012	L 4	11.6 ± 0.1
LEW90500	C 1	< 1	QUE90201	L 5	8.0 ± 0.1
EET90007	C 4	2 ± 1.5	QUE90202	L 5	8.2 ± 0.1
EET90015	C 4	< 1	EET90030	L 6	12.6 ± 0.1
			EET90034	L 6	4 ± 1
EET90031	LL6	26.1 ± 0.1	QUE90200	H 4	88.5 ± 0.9
ALH90411	L 3	20.5 ± 0.1	QUE90203	H 6	42.9 ± 0.2

The quoted uncertainties are the standard deviations shown by replicate measurements of a single aliquot.

COMMENTS: The following comments are based on natural TL data, TL sensitivity, the shape of the induced TL glow curve, classifications and JSC and Arkansas group sample descriptions.

EET90034 appears to have been heavily shocked.

ALH90411 is type 3.7.

Pairings (confirmation of pairings suggested in AMN 14:2):

C4: EET90007, EET90015 with EET87507

L5: QUE90201 and QUE90202 (reclassified from L4 in this issue).