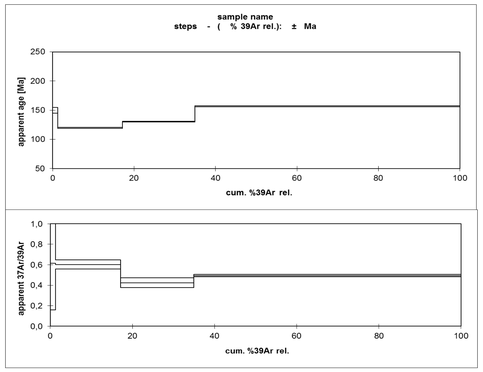
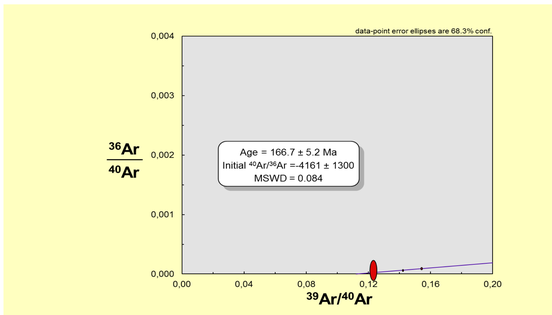
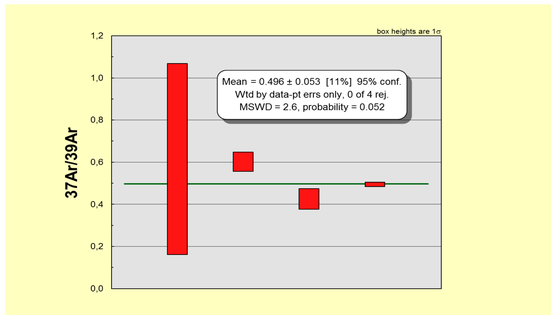
MK0208AF - Monitoring / Steiring

sample field number	ALT-37B		material:	Polyhalit
project description	FWF P22,T28		grain size:	355-500
number of measurement	07b0403		number:	1
number of irradiation	21-91		notes:	Altaussee mine
J-value of irradiation	0,010946	0,000054	(+/- 1sigma)	
duration of irradiation [hr]	16,0			
year of irradiation	2006			
julian day of irradiation	257			

				+/- 1sigma	
conversion from [V] to [cps] by:	6E+07				
composition of atmospheric argon:	(40Ar/36Ar)atm.	=	295,5		(Steiger & Jäger 1977)
half-life of 37Ar [d]		=	35,1	0,1	(Stoenner et al. 1965)
decay constant of 37Ar [dE-01]		=	1,975E-02		(Stoenner et al. 1965)
decay constant of ₊39Ar [dE-1]		=	7,064E-06		(Stoenner et al. 1965)
decay constant of 40K [aE-01]		=	5,543E-10	1,000E-12	(Steiger & Jäger 1977)
correction for Ca-derived Ar:	(36Ar/37Ar)Ca	=	2,2500E-04		Measured
correction for Ca-derived Ar:	(39Ar/37Ar)Ca	=	6,1400E-04		Measured
correction for K-derived Ar:	(40Ar/39Ar)K	=	2,6600E-02		Measured
correction for K-derived Ar:	(38Ar/39Ar)K	=	1,1700E-02		Measured

steps:
check corrected intensities

	36Ar	+/-[%]	37Ar	+/-[%]	38Ar	+/-[%]	39Ar	+/-[%]	40Ar	+/-[%]	date of measurement: year	j-day	days elapsed	post-irrad. 37Ar decay factor	number of steps	mean of dec.37Ar corr.factor
07b0403a	3,54316E-06	2,1617	5,40573E-06	1,9212	5,23763E-06	1,6438	1,05853E-05	1,9026	2,09970E-04	0,6782	2007	197			4	4,156E+02
a 4.0%	3,61461E-06	1,8184	5,57064E-06	1,1385	6,62178E-06	2,0389	1,22122E-04	0,9362	1,11980E-03	0,3639	2007	197	305	4,156E+02		
	3,54316E-06	2,1617	5,40573E-06	1,9212	5,23763E-06	1,6438	1,05853E-05	1,9026	2,09970E-04	0,6782	2007	197				
b 4.5%	4,56487E-06	2,3070	7,42602E-06	1,5003	2,14484E-05	1,0433	1,40400E-03	0,1335	9,29248E-03	0,1056	2007	197	305	4,156E+02		
07b0403b	3,75409E-06	2,5859	5,97288E-06	1,3126	5,64162E-06	2,5546	1,23973E-05	0,9999	3,43516E-04	0,2244	2007	197				
c 4.8%	4,59288E-06	1,2022	7,57625E-06	2,1976	2,28897E-05	0,6719	1,58088E-03	0,1328	1,14333E-02	0,0849	2007	197	305	4,156E+02		
	3,75409E-06	2,5859	5,97288E-06	1,3126	5,64162E-06	2,5546	1,23973E-05	0,9999	3,43516E-04	0,2244	2007	197				
d 5.1%	5,10715E-06	1,4269	1,27730E-05	1,0008	6,93469E-05	0,6639	5,73538E-03	0,0919	4,85682E-02	0,0556	2007	197	305	4,156E+02		

blank- and background-corrected intensities and absolute errors (1-sigma abs.):

	36Ar	+/-	37Ar	+/-	38Ar	+/-	39Ar	+/-	40Ar	+/-	%39Ar	cum%39Ar	%40Ar*	36Ar/39Ar meas.	+/- [1-sigma abs.]	36Ar/39Ar meas.	+/- [1-sigma abs.]	37Ar/39Ar meas.	+/- [1-sigma abs.]	38Ar/39Ar meas.	+/- [1-sigma abs.]	40Ar/39Ar meas.	+/- [1-sigma abs.]	37Ar/39Ar cor r ect ed	+/- [1-sigma abs.]	39ArK cor r ect ed	+/- [1-sigma abs.]	40Ar* cor r ect ed	+/- [1-sigma abs.]	40Ar*/39ArK cal cul at ed	+/- [1-sigma abs.]	age [Ma]	+/- 1sigma [Ma]	+/- 1sigma +σA [Ma]
a 4.0%	4,46005E+00	6,30E+00	1,02940E+01	7,60E+00	8,64014E+01	1,00E+01	6,96234E+03	7,25E+01	5,67934E+04	2,69E+02	1,27	1,27	98,17	0,000640596	0,000904916	0,001479	0,001091128	0,012410	0,001441443	8,157225	0,093307518	0,614430209	0,453439369	6959,71421	72,492134	5,55747E+04	1892,770066	7,985204	0,284395	149,8	5,2	5,178E+00
b 4.5%	6,37772E+01	8,13E+00	1,26110E+02	9,51E+00	1,01191E+03	1,50E+01	8,69797E+04	1,18E+02	5,66948E+05	6,19E+02	15,84	17,11	97,28	0,000733	9,34583E-05	0,001450	0,000109325	0,011634	0,000172787	6,518167	0,011331435	0,60252724	0,0454322	86947,51584	117,698465	549273,6896	2494,315558	6,317302	0,029935	119,6	0,8	8,224E-01
c 4.8%	5,23589E+01	6,97E+00	1,00086E+02	1,15E+01	1,07666E+03	1,32E+01	9,79078E+04	1,31E+02	6,92246E+05	6,08E+02	17,83	34,94	98,16	0,000535	7,1207E-05	0,001022	0,000117339	0,010997	0,000135185	7,070390	0,011332046	0,424812591	0,04876228	97882,24625	131,310192	676935,8404	2171,166871	6,915818	0,024044	130,5	0,8	7,980E-01
d 5.1%	8,44607E+01	7,58E+00	4,24477E+02	9,36E+00	3,97661E+03	3,01E+01	3,57240E+05	3,29E+02	3,01028E+06	1,69E+03	65,06	100,00	99,56	0,000236	2,12114E-05	0,001188	2,62258E-05	0,011131	8,49175E-05	8,425495	0,009084083	0,493794557	0,010898617	357131,5596	329,114266	2987550,435	2814,415276	8,365406	0,011024	156,7	0,8	8,205E-01
total	2,05057E+02	1,46E+01	6,60967E+02	1,92E+01	6,15158E+03	3,75E+01	5,49090E+05	3,80E+02	4,32627E+06	1,91E+03	100,00		98,59938658	0,000373449	2,65044E-05	0,001204	3,49314E-05	0,011203	6,86763E-05	7,878982	0,00647613	0,500242	0,014516413	5,48921E+05	380,350634	4269334,7	4736,992228	7,777685	0,010174	146,1	0,7	7,667E-01