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Nuclear effects in semi-inclusive deep-inelastic scattering off ^{84}Kr and other nuclei

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Appendix B

Tables

In this Appendix the results are listed of the inclusive cross section ratios for ^3He , ^{14}N and ^{84}Kr , and of the ratios R_A/R_D , which are obtained according to the analysis described in chapter 5. More complete tables for (x, Q^2) bins can be found in:
<http://www.nikhef.nl/~erikag/Analysis/inclusive.html>.

$\langle x \rangle$	$\langle Q^2 \rangle$	$\sigma_{\text{Kr}}/\sigma_{\text{D}}$	stat	sys
0.013	0.498	0.829	0.016	0.060
0.018	0.660	0.850	0.020	0.066
0.025	0.872	0.876	0.012	0.039
0.035	1.124	0.937	0.008	0.027
0.045	1.341	0.942	0.009	0.017
0.055	1.527	0.969	0.010	0.018
0.070	1.758	0.989	0.007	0.012
0.090	2.016	1.032	0.009	0.013
0.125	2.342	1.036	0.004	0.015
0.175	2.704	1.040	0.005	0.015
0.250	3.100	1.014	0.004	0.010
0.350	4.138	0.966	0.006	0.017

Table B.1: *Extracted values for $\sigma_{\text{Kr}}/\sigma_{\text{D}}$ in 12 x bins. The 4th column represents the relative statistical error while in the 5th is column the systematic uncertainty for each point is listed.*

$\langle x \rangle$	$\langle Q^2 \rangle$	σ_N/σ_D	stat	sys
0.013	0.497	0.918	0.010	0.032
0.018	0.659	0.930	0.010	0.032
0.025	0.871	0.947	0.007	0.019
0.035	1.123	0.967	0.008	0.021
0.045	1.338	0.978	0.008	0.016
0.055	1.525	0.994	0.008	0.016
0.070	1.753	1.006	0.006	0.013
0.090	2.010	1.018	0.007	0.014
0.125	2.324	1.023	0.003	0.011
0.175	2.674	1.023	0.003	0.012
0.250	3.072	1.010	0.003	0.011
0.350	4.130	0.978	0.004	0.009

Table B.2: Extracted values for σ_N/σ_D in 12 x bins. The 4th column represents the relative statistical error while in the 5th is column the systematic uncertainty for each point is listed.

$\langle x \rangle$	$\langle Q^2 \rangle$	σ_{He}/σ_D	stat	sys
0.013	0.770	0.910	0.014	0.018
0.018	1.300	0.962	0.012	0.018
0.025	1.800	0.977	0.008	0.011
0.035	2.400	0.971	0.008	0.013
0.045	3.000	0.985	0.009	0.012
0.055	3.800	0.990	0.009	0.013
0.070	4.700	0.996	0.007	0.011
0.090	5.600	1.005	0.008	0.013
0.125	6.300	1.008	0.004	0.010
0.175	7.300	1.017	0.004	0.011
0.250	8.700	1.008	0.004	0.011
0.350	11.000	1.004	0.005	0.010

Table B.3: Extracted values for σ_{He}/σ_D in 12 x bins. The 4th column represents the relative statistical error while in the 5th is column the systematic uncertainty for each point is listed.

$\langle x \rangle$	$\langle Q^2 \rangle$	F_2^{Kr}/F_2^D	stat	R_{Kr}/R_D	stat	sys
0.013	0.498	1.066	0.139	4.574	2.958	2.393
0.018	0.660	1.011	0.077	3.832	1.887	1.747
0.025	0.872	1.026	0.038	3.465	0.807	1.296
0.035	1.124	0.983	0.020	1.702	0.329	0.525
0.045	1.341	0.989	0.019	1.835	0.342	0.512
0.055	1.527	1.020	0.018	2.063	0.387	0.461
0.070	1.758	1.023	0.013	1.724	0.267	0.334
0.090	2.016	1.049	0.015	1.738	0.394	0.807
0.125	2.342	1.035	0.007	1.180	0.237	0.443
0.175	2.704	1.034	0.007	0.835	0.330	0.545
0.250	3.100	1.016	0.006	2.261	0.911	1.702
0.350	4.138	0.981	0.008	2.730	1.838	0.952
$\langle x \rangle$	$\langle Q^2 \rangle$	F_2^N/F_2^D	stat	R_N/R_D	stat	sys
0.013	0.499	1.215	0.163	5.330	3.487	2.502
0.018	0.655	1.011	0.052	1.950	0.674	0.668
0.025	0.903	1.040	0.026	2.263	0.415	0.703
0.035	1.247	0.987	0.019	1.270	0.248	0.348
0.045	1.451	1.007	0.017	1.449	0.245	0.365
0.055	1.579	1.010	0.016	1.266	0.237	0.289
0.070	1.858	1.023	0.011	1.303	0.180	0.255
0.090	2.024	1.024	0.012	1.103	0.204	0.208
0.125	2.437	1.025	0.004	1.092	0.147	0.211
0.175	2.842	1.025	0.004	1.145	0.246	0.252
0.250	3.458	1.008	0.004	0.732	0.291	0.154
0.350	5.151	0.989	0.005	2.543	1.110	1.097
$\langle x \rangle$	$\langle Q^2 \rangle$	F_2^{He}/F_2^D	stat	R_{He}/R_D	stat	sys
0.013	0.502	0.815	0.239	0.142	1.952	0.067
0.018	0.655	1.031	0.067	1.763	0.807	0.645
0.025	0.948	1.044	0.031	1.850	0.427	0.601
0.035	1.201	0.999	0.021	1.396	0.289	0.415
0.045	1.404	0.979	0.018	0.902	0.236	0.246
0.055	1.644	1.008	0.018	1.302	0.282	0.328
0.070	1.894	1.013	0.013	1.346	0.229	0.302
0.090	2.078	1.024	0.013	1.455	0.283	0.351
0.125	2.366	1.010	0.005	1.083	0.184	0.322
0.175	2.835	1.024	0.006	1.554	0.358	0.679
0.250	3.353	1.008	0.005	1.118	0.429	0.955

Table B.4: Extracted values for F_2^A/F_2^D and R_A/R_D obtained in the 2-parameters fit.

$\langle x \rangle$	$\langle Q^2 \rangle$	R_{Kr}/R_D	stat	sys	$\langle x \rangle$	$\langle Q^2 \rangle$	R_N/R_D	stat	sys
0.013	0.498	0.985	0.172	1.798	0.013	0.483	1.212	0.107	0.345
0.018	0.660	1.441	0.299	1.847	0.018	0.640	1.270	0.108	0.240
0.025	0.872	1.814	0.183	0.981	0.025	0.846	1.328	0.084	0.246
0.035	1.124	1.510	0.131	0.536	0.035	1.090	1.265	0.102	0.211
0.045	1.341	1.938	0.176	0.433	0.045	1.301	1.345	0.110	0.222
0.055	1.527	1.902	0.206	0.370	0.055	1.482	1.237	0.119	0.185
0.070	1.758	1.746	0.154	0.265	0.070	1.706	1.228	0.101	0.158
0.090	2.016	1.407	0.212	0.295	0.090	1.956	1.105	0.113	0.140
0.125	2.342	1.206	0.165	0.403	0.125	2.271	1.143	0.108	0.111
0.175	2.704	0.714	0.226	0.492	0.175	2.623	1.064	0.179	0.180
0.250	3.100	2.047	0.632	1.146	0.250	3.007	0.765	0.229	0.229
0.350	4.138	0.964	0.898	1.682	0.350	4.014	1.927	0.765	0.766

$\langle x \rangle$	$\langle Q^2 \rangle$	R_{He}/R_D	stat	sys
0.013	0.513	1.579	0.163	0.269
0.018	0.680	1.112	0.128	0.158
0.025	0.898	1.080	0.092	0.131
0.035	1.158	1.253	0.113	0.145
0.045	1.381	1.089	0.121	0.144
0.055	1.573	1.207	0.145	0.161
0.070	1.811	1.254	0.125	0.139
0.090	2.077	1.255	0.158	0.165
0.125	2.412	1.210	0.136	0.137
0.175	2.785	1.135	0.236	0.236
0.250	3.193	0.777	0.300	0.300

Table B.5: Extracted values for R_A/R_D in x bins from HERMES + NMC data with one parameter fit.

$\langle x \rangle$	$\langle Q^2 \rangle$	R_N/R_D	stat	sys
0.013	0.505	2.353	1.139	1.237
0.018	0.678	1.714	0.463	0.632
0.025	0.907	1.537	0.238	0.543
0.035	1.271	1.329	0.186	0.413
0.045	1.442	1.280	0.196	0.362
0.055	1.598	1.299	0.212	0.325
0.070	1.933	1.323	0.160	0.286
0.090	2.188	1.134	0.188	0.228
0.125	2.733	1.045	0.146	0.202
0.175	3.210	1.114	0.253	0.247
0.250	3.876	0.732	0.310	0.153
0.350	5.466	2.585	1.144	0.683
$\langle x \rangle$	$\langle Q^2 \rangle$	R_{He}/R_D	stat	sys
0.013	0.535	0.142	1.952	0.075
0.018	0.719	1.763	0.807	0.650
0.025	0.962	1.437	0.336	0.508
0.035	0.347	1.288	0.233	0.400
0.045	1.529	0.946	0.218	0.268
0.055	1.694	1.389	0.265	0.347
0.070	2.049	1.200	0.193	0.259
0.090	2.319	1.347	0.254	0.270
0.125	2.896	1.053	0.183	0.204
0.175	3.402	1.600	0.372	0.354
0.250	4.108	1.102	0.451	0.231

Table B.6: *Extracted values for R_A/R_D in x bins from the Rosenbluth separation of HERMES + NMC data.*

