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phonemt3.out2

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phases.f sccs id 1.59 last changed 15:16:25 09/19/08

input-parameters for phases

input for phases

jb,je 0 4
jborn 9
nj 24 24 32 0 0
sing,tr,cp 1 1 0
iprop 1
iphrel 1
ipotfc 0
c 1000.0000
wn 938.9260

0.0100
0.0200
10.0000
25.0000
50.0000
75.0000
100.0000
150.0000
200.0000
250.0000
300.0000
350.0000

elab end 0.0000
mps,analy 1 1
icpp 1
icoul 0
rcoul 10.0000
ikma,iqua 0 0 0
iout,ibin 0 1 0
ipoint 0 0
iwrite 2
ipunch 0 0 0
ideg 1

obnn.f sccs id 1.5 last changed 22:00:33 11/19/92

1

obnn: one-boson-exchange nn-nn interaction (numer. integra.)

input-parameter-set:

mf3 1 only / MTIIIa
factor typ 0
num.int. 16 96
nucl. mass 938.9260

jp	name	g**2	f/g	mass	iso-spin	iprop/spe
	cut typ		cut - off	parameters		
1-stomega	7.2910000	0.0000	613.69	0.0	0.0	
cut	0.0	0.0	2.0000	1500.0000	0.0000	
0+stsigma	3.1769000	0.0000	305.86	0.0	0.0	
cut	0.0	0.0	2.0000	2000.0000	0.0000	
end mesons						

p h a s e - s h i f t s

elab(mev)	theoretical	experimental	upper	lower	chi**2
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1 S 0 n-p

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0.01	-3.46637	0.000	0.000	0.000		0.00
0.02	-4.89929	0.000	0.000	0.000		0.00
10.00	-79.35229	59.580	59.680	59.480	sp40	1930218.24
25.00	77.95039	50.900	51.090	50.710	nm93	20269.34
50.00	60.03158	40.540	40.820	40.260	nm93	4845.94
75.00	49.29103	0.000	0.000	0.000		0.00
100.00	41.57219	26.780	27.160	26.400	nm93	1515.30
150.00	30.58383	16.940	17.350	16.530	nm93	1107.40
200.00	22.73445	8.940	9.330	8.550	nm93	1251.06
250.00	16.63316	1.960	2.330	1.590	nm93	1572.69
300.00	11.65133	-4.460	-4.030	-4.890	nm93	1403.87
350.00	7.44999	-10.120	-9.850	-10.390	sp40	4234.63

Low Energy Parameters as = 5.5131 rs = 1.8931

total chi**2 1966418.50
 chi**2/datum 218490.94
 for 9 p. of data

1 P 1

0.01	0.00015	0.000	0.000	0.000		0.00
0.02	0.00044	0.000	0.000	0.000		0.00
10.00	4.46792	0.000	0.000	0.000		0.00
25.00	14.51594	-6.311	-6.272	-6.350	nm93	285181.63
50.00	27.36266	-9.670	-9.590	-9.750	nm93	214284.09
75.00	33.70832	0.000	0.000	0.000		0.00
100.00	36.38614	-14.520	-14.380	-14.660	nm93	132216.05
150.00	37.24196	-18.650	-18.490	-18.810	nm93	122027.81
200.00	36.00121	-22.180	-22.000	-22.360	nm93	104476.94
250.00	34.17446	-25.130	-24.930	-25.330	nm93	87925.47
300.00	32.21637	-27.580	-27.360	-27.800	nm93	73876.14
350.00	30.28318	-29.400	-28.840	-29.960	sp40	11358.68

p h a s e - s h i f t s

elab(mev)	d e g r e e s				chi**2
	theoretical	experimental	upper	lower	

3 P 1

0.01	0.00015	0.000	0.000	0.000		0.00
0.02	0.00044	0.000	0.000	0.000		0.00
10.00	4.46792	0.000	0.000	0.000		0.00
25.00	14.51594	-4.877	-4.870	-4.884	nm93	7675223.61
50.00	27.36266	0.000	0.000	0.000		0.00
75.00	33.70832	0.000	0.000	0.000		0.00
100.00	36.38614	-13.245	-13.215	-13.275	nm93	2736944.08
150.00	37.24196	-17.408	-17.367	-17.449	nm93	1776691.61
200.00	36.00121	-21.180	-21.120	-21.240	nm93	908247.48
250.00	34.17446	0.000	0.000	0.000		0.00
300.00	32.21637	-27.800	-27.640	-27.960	nm93	140701.73
350.00	30.28318	0.000	0.000	0.000		0.00

total chi**2 16235574.00
 chi**2/datum 737980.62
 for 22 p. of data

1 D 2

0.01	0.00000	0.000	0.000	0.000		0.00
0.02	0.00000	0.000	0.000	0.000		0.00
10.00	0.13068	0.000	0.000	0.000		0.00
25.00	0.92112	0.680	0.681	0.679	nm93	90841.19
50.00	3.28316	0.000	0.000	0.000		0.00
75.00	6.13881	0.000	0.000	0.000		0.00
100.00	8.95946	3.782	3.799	3.765	nm93	92754.61
150.00	13.70803	5.774	5.807	5.741	nm93	56767.43

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200.00	17.07658	7.039	7.082	6.996	nm93	54490.53
250.00	19.32305	8.780	8.870	8.690	sp40	13722.94
300.00	20.76608	9.420	9.500	9.340	nm93	20114.61
350.00	21.65183	11.030	11.110	10.950	sp40	17628.63

3 D 2

0.01	0.00000	0.000	0.000	0.000		0.00
0.02	0.00000	0.000	0.000	0.000		0.00
10.00	0.13068	0.000	0.000	0.000		0.00
25.00	0.92112	3.708	3.711	3.705	nm93	862967.26
50.00	3.28316	8.966	8.983	8.949	nm93	111746.07
75.00	6.13881	14.090	14.140	14.040	sp40	25288.56
100.00	8.95946	17.280	17.340	17.220	nm93	19230.95
150.00	13.70803	22.130	22.230	22.030	nm93	7092.96
200.00	17.07658	24.510	24.620	24.400	nm93	4566.59
250.00	19.32305	25.400	25.510	25.290	nm93	3052.01
300.00	20.76608	25.450	25.570	25.330	nm93	1523.55
350.00	21.65183	0.000	0.000	0.000		0.00
						total chi**2 17617356.00
						chi**2/datum 476144.75
						for 37 p. of data

p h a s e - s h i f t s

elab(mev)	d e g r e e s				chi**2
	theoretical	experimental	upper	lower	

1 F 3

0.01	0.00000	0.000	0.000	0.000		0.00
0.02	0.00000	0.000	0.000	0.000		0.00
10.00	0.00499	0.000	0.000	0.000		0.00
25.00	0.07683	-0.415	-0.414	-0.415	nm93	967575.32
50.00	0.45841	-1.101	-1.100	-1.101	nm93	9727093.90
75.00	1.12589	0.000	0.000	0.000		0.00
100.00	1.97951	-2.089	-2.086	-2.092	nm93	1839197.79
150.00	3.92873	-2.702	-2.691	-2.713	nm93	363359.81
200.00	5.88930	-3.235	-3.208	-3.262	nm93	114201.46
250.00	7.68288	-3.880	-3.830	-3.930	nm93	53480.10
300.00	9.24986	-4.720	-4.640	-4.800	nm93	30493.30
350.00	10.58489	0.000	0.000	0.000		0.00

3 F 3

0.01	0.00000	0.000	0.000	0.000		0.00
0.02	0.00000	0.000	0.000	0.000		0.00
10.00	0.00499	0.000	0.000	0.000		0.00
25.00	0.07683	0.090	0.091	0.090	nm93	694.11
50.00	0.45841	0.000	0.000	0.000		0.00
75.00	1.12589	0.000	0.000	0.000		0.00
100.00	1.97951	-1.518	-1.516	-1.520	nm93	3058145.26
150.00	3.92873	-1.983	-1.975	-1.991	nm93	495302.11
200.00	5.88930	-2.499	-2.478	-2.520	nm93	159554.65
250.00	7.68288	-2.440	-2.290	-2.590	sp40	4554.34
300.00	9.24986	-2.890	-2.820	-2.960	nm93	30076.79
350.00	10.58489	0.000	0.000	0.000		0.00
						total chi**2 34461088.00
						chi**2/datum 689221.75
						for 50 p. of data

1 G 4

0.01	0.00000	0.000	0.000	0.000		0.00
0.02	0.00000	0.000	0.000	0.000		0.00
10.00	0.00020	0.000	0.000	0.000		0.00
25.00	0.00688	0.032	0.033	0.032	nm93	2604.94
50.00	0.06934	0.000	0.000	0.000		0.00

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75.00	0.22263	0.000	0.000	0.000		0.00
100.00	0.46527	0.418	0.419	0.418	nm93	8936.03
150.00	1.15365	0.681	0.683	0.678	nm93	35743.92
200.00	2.00269	0.993	1.001	0.985	nm93	15929.42
250.00	2.91484	0.000	0.000	0.000		0.00
300.00	3.82961	1.501	1.541	1.461	nm93	3389.02
350.00	4.71198	0.000	0.000	0.000		0.00

3 G 4

0.01	0.00000	0.000	0.000	0.000		0.00
0.02	0.00000	0.000	0.000	0.000		0.00

p h a s e - s h i f t s

elab(mev)	d e g r e e s			lower		chi**2
	theoretical	experimental	upper			
10.00	0.00020	0.000	0.000	0.000		0.00
25.00	0.00688	0.169	0.169	0.169	nm93	105130.67
50.00	0.06934	0.716	0.717	0.715	nm93	1672688.23
75.00	0.22263	0.000	0.000	0.000		0.00
100.00	0.46527	2.154	2.155	2.154	nm93	11407298.89
150.00	1.15365	3.618	3.618	3.618	nm93	24292052.02
200.00	2.00269	4.987	4.988	4.986	nm93	35624312.11
250.00	2.91484	6.232	6.233	6.231	nm93	44014163.82
300.00	3.82961	7.337	7.338	7.336	nm93	49207103.90
350.00	4.71198	8.010	8.230	7.790	sp40	224.73
						total chi**2 200850672.00
						chi**2/datum 3188106.00
						for 63 p. of data