

**Supplementary Information for "Molecular Topological Insulators: A Case Study of
Electron Transfer in Bis(methylene) Adamantyl Carbocation"**

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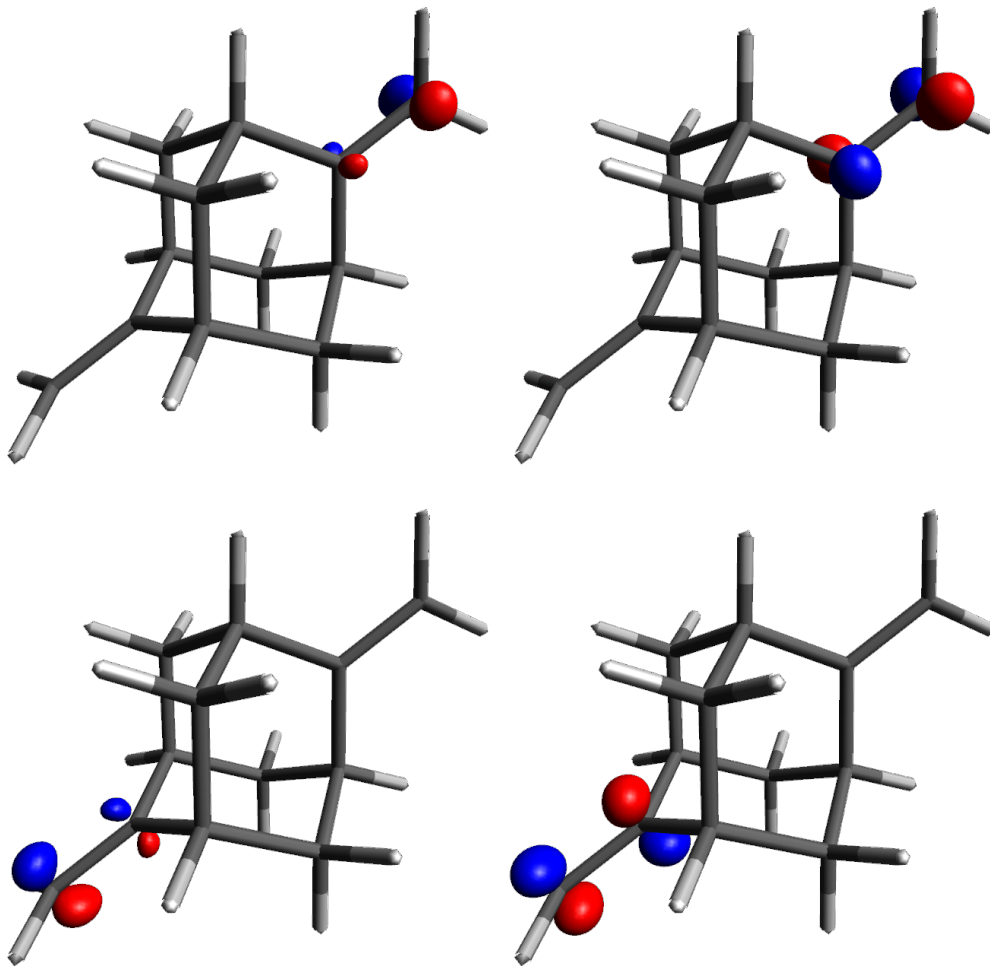


FIG. 1. Active space orbitals at the CI geometry.

I. ELECTRONIC STRUCTURE METHODS

In the local minima corresponding to the charge localized configurations (M_D and M_A), static electronic correlation is negligible and the CAM-B3LYP¹/6-31G* method was used to optimize nuclear geometries and to evaluate Hessians of the adiabatic ground state.

In the CI minimum (M_{CI}), where static correlation is essential, the complete active space self-consistent field (CASSCF) approach state-averaged over 2 states was used with the 6-31G* basis set. For both states, the active space is built by placing 3 electrons in 4 orbitals. These are electrons and orbitals of the π -system of the methylene groups. The active orbitals are depicted in Fig. 1. The CASSCF/6-31G* method is used to optimize the CI geometry and to obtain the gradients of the adiabatic states as well as the nonadiabatic couplings (NACs). To ensure continuity of potential energy surfaces (PESs), we also used CASSCF energies at minima. To validate the CASSCF approach, which does not account

for the dynamical part of electronic correlation, a comparison with the extended multi-configuration quasi-degenerate second-order perturbation theory (XMCQDPT2)² method with the TZVPD basis set was done. The excitation energy at the potential minima were different only by $2 \cdot 10^{-2}$ eV in the two methods. The CAM-B3LYP and CASSCF calculations were done in the Gaussian 09 package³, while the XMCQDPT2 calculations were done using the Firefly quantum chemistry package,⁴ which is partially based on the GAMESS (US)⁵ source code.

For the diabatic fitting, M_D and M_A nuclear configurations were rotated to minimize nuclei displacements with respect to the CI geometry. Then the Eckart⁶ conditions were applied to remove global translation and rotation.

II. HAMILTONIAN MODEL CONSTRUCTION

The diabatic model Hamiltonian is

$$\hat{H} = \sum_{j=1}^N \begin{pmatrix} \frac{1}{2} \left[\omega_j^2 x_j^2 - \frac{\partial^2}{\partial x_j^2} \right] & c_j x_j \\ c_j x_j & \frac{1}{2} \left[\omega_j^2 \left(\sum_{i=1}^N J_{ji} x_i - K_j \right)^2 - \frac{\partial^2}{\partial x_j^2} \right] \end{pmatrix}, \quad (1)$$

where N is the number of nuclear coordinates, x_j is the j^{th} mass-weighted nuclear coordinate, ω_j is the corresponding frequency, c_j are linear coupling parameters, J_{jk} and K_j are parameters of the Duschinsky transformation connecting the acceptor and donor coordinates.⁷ For further discussion we define the potential part as

$$V(\mathbf{x}) = \begin{pmatrix} V_{11}(\mathbf{x}) & V_{12}(\mathbf{x}) \\ V_{12}(\mathbf{x}) & V_{22}(\mathbf{x}) \end{pmatrix} = \sum_{j=1}^N \begin{pmatrix} \frac{1}{2} \omega_j^2 x_j^2 & c_j x_j \\ c_j x_j & \frac{1}{2} \omega_j^2 \left(\sum_{i=1}^N J_{ji} x_i - K_j \right)^2 \end{pmatrix}. \quad (2)$$

The symmetry of the BMA molecule allows us to find the Duschinsky rotation matrix J_{ji} by finding corresponding modes in the two wells. We impose the condition that diabatic and adiabatic states are matching at the minima such that the interstate coupling is 0 at these geometries. These simplifications imply that the adiabatic minima are also the diabatic minima, which provides the K_j components directly from adiabatic calculations.

We optimized the remaining parameters (ω_j, c_j) by minimizing function f , which is a weighted difference between adiabatic quantities obtained from *ab initio* calculations (denoted here as $E_0(\mathbf{x})$, $E_1(\mathbf{x})$ and their derivatives), and their counterparts from Eq. (1)

TABLE I. Cartesian coordinates in Angstroms of M_D and M_{CI} geometries.

M_D				M_CI			
	x	y	z		x	y	z
C	-0.366	4.583	0.022	C	-0.363	4.583	0.003
H	0.726	4.565	-0.029	H	0.722	4.593	-0.016
H	-0.681	5.631	0.023	H	-0.693	5.615	0.026
C	-0.881	3.847	1.263	C	-0.882	3.854	1.265
H	-0.508	4.354	2.160	H	-0.507	4.342	2.156
C	-0.906	3.869	-1.268	C	-0.889	3.865	-1.261
H	-0.560	4.386	-2.166	H	-0.541	4.377	-2.150
C	-0.388	2.387	-1.251	C	-0.385	2.403	-1.260
H	0.705	2.424	-1.271	H	0.699	2.399	-1.288
H	-0.719	1.870	-2.157	H	-0.732	1.876	-2.142
C	-0.902	1.683	0.009	C	-0.904	1.678	0.003
H	-0.545	0.647	0.011	H	-0.544	0.657	0.019
C	-2.435	1.685	-0.005	C	-2.450	1.695	-0.003
H	-2.824	1.149	-0.876	H	-2.810	1.162	-0.877
H	-2.843	1.207	0.889	H	-2.844	1.184	0.869
C	-2.413	3.881	1.268	C	-2.428	3.874	1.261
H	-2.786	4.909	1.304	H	-2.772	4.903	1.290
H	-2.821	3.348	2.131	H	-2.822	3.378	2.141
C	-2.953	3.167	-0.022	C	-2.951	3.158	-0.006
H	-4.045	3.191	-0.045	H	-4.034	3.179	-0.024
C	-0.404	2.412	1.237	C	-0.427	2.428	1.209
C	0.355	1.861	2.175	C	0.362	1.856	2.182
H	0.675	0.824	2.115	H	0.672	0.830	2.115
H	0.691	2.423	3.041	H	0.689	2.420	3.036
C	-2.373	3.840	-1.192	C	-2.386	3.849	-1.208
C	-3.180	4.426	-2.188	C	-3.175	4.422	-2.181
H	-2.737	4.920	-3.048	H	-2.740	4.912	-3.032
H	-4.264	4.396	-2.118	H	-4.246	4.394	-2.117

(denoted here as $W_0(\mathbf{x})$, $W_1(\mathbf{x})$ and their derivatives)

$$\begin{aligned}
 f = & \sum_{e=0,1} \varpi_{CI,e}^2 [E_e(M_{CI}) - W_e(M_{CI})]^2 + \sum_{k=D,A} \varpi_{M_k}^2 [E_1(M_k) - W_1(M_k)]^2 \\
 & + \sum_a \varpi_{NAc,a}^2 \left(\langle D | \partial H_{el} / \partial x_a | A \rangle_{M_{CI}} - \left[\frac{(V_{22} - V_{11}) \frac{\partial V_{12}}{\partial x_a} - V_{12} \frac{\partial (V_{22} - V_{12})}{\partial x_a}}{\sqrt{W_D - W_A}} \right]_{M_{CI}} \right)^2 \\
 & + \sum_{k=D,A} \left\| \left[\sum_b \varpi_{H,kab} \left(\frac{\partial^2 E_0}{\partial x_b \partial x_c} \Big|_{M_k} - \frac{\partial^2 W_0}{\partial x_b \partial x_c} \Big|_{M_k} \right) \right] \right\|^2, \quad (3)
 \end{aligned}$$

where the norm in the last term indicates the Hilbert-Schmidt norm taken over the matrix for which elements are expressed in the square bracket. The first two sums in Eq. (3) force

the diabatic potential to match *ab initio* adiabatic energies at the CI by using large weights, $\varpi_{CI,e} = 10^5$, and anchors the potential on the excited states at the minima geometries by using smaller weights $\varpi_{M_k} = 10^2$. The third sum is used to fit NACs at the CI. The ability of the model to reproduce NACs is crucial to ensure proper interstate coupling, and therefore, a large weight is used $\varpi_{NAC,a} = 10^2 \sqrt{\Delta x}$, where Δx is a characteristic distance of the potential region involved in electron transfer, $\Delta x = 4||M_D - M_{CI}||/3$. The last sum is used to fit adiabatic Hessians at the minima. In order to fit well low frequencies, employed weights are proportional to elements of the inverse Hessian matrix: $\varpi_{H,kab} = \Delta x [\frac{\partial^2 E_0}{\partial x_a \partial x_b} | M_k]^{-1}$.

The penalty function in Eq. (3) is the sum of squared quantities, its minimization with respect to the Hamiltonian parameters was done using the Levenberg-Marquardt method^{8,9} within the Matlab package¹⁰ with the final error of 1.3 meV.

III. MCTDH DYNAMICS SIMULATIONS

Quantum dynamics simulations of the 21-dimensional model were done using the multi-configuration time-dependent Hartree (MCTDH) method.¹¹ This method as implemented in the MCTDH Heidelberg package¹² uses a multi-configuration expansion of combined single particle functions (SPFs) for the nuclei. These SPFs are expanded as Hermite (harmonic oscillator) discrete variable representation grids. Such grids are defined by their total number of points, and by giving the positions of first and last points. These numbers are given in Table II. The 21 nuclear modes are gathered into 6 combined modes. The multi-configuration expansion is build as products of these 6 combined modes and is fully specified by indicating the number of combined SPFs (direct product of one-dimensional SPFs involved in the combination) used to describe each combined modes. We employed a multi-set formulation, that is different SPFs are used on donor and acceptor states. Details of nuclear mode combinations and the number of combined SPFs on each state are given in Table III.

The initial state is the ground vibrational state of the donor potential and was obtained using the improved relaxation (imaginary time propagation of SPFs and diagonalization of the Hamiltonian in multiconfiguration space) method¹¹ on the uncoupled diabatic state. The integrators used for generating this initial state are Runge-Kutta at the 8th order with 10^{-8} accuracy for the SPF propagation, and the Davidson diagonalization procedure with 10^{-10} accuracy for the propagation of the coefficients in the multiconfiguration expansion.

TABLE II. One-dimensional grids.

Coordinate label	Q_1	Q_2	Q_3	Q_4	Q_5	Q_6	Q_7	Q_8	Q_9
Number of points	10	17	11	10	10	12	10	15	10
First point	-60.0	-70.0	-36.0	-40.0	-41.0	-50.0	-40.0	-47.0	-44.0
Last point	60.0	70.0	44.0	40.0	40.0	44.0	40.0	53.0	45.0

Q_{10}	Q_{11}	Q_{12}	Q_{13}	Q_{14}	Q_{15}	Q_{16}	Q_{17}	Q_{18}	Q_{19}	Q_{20}	Q_{21}
13	13	22	10	17	17	13	13	13	14	13	14
-47.0	-50.0	-72.0	-58.0	-66.0	-57.0	-67.0	-66.0	-56.0	-49.0	-54.0	-55.0
47.0	49.0	70.0	57.0	70.0	58.0	67.0	66.0	58.0	49.0	55.0	55.0

TABLE III. Mode combinations and number of SPFs.

Combined modes	(Q_1, Q_4, Q_7)	(Q_2, Q_5, Q_8)	(Q_3, Q_6, Q_9)
Number of SPFs in donor state	6	8	8
Number of SPFs in acceptor state	6	8	8

$(Q_{10}, Q_{11}, Q_{12}, Q_{13})$	$(Q_{14}, Q_{15}, Q_{16}, Q_{17})$	$(Q_{18}, Q_{19}, Q_{20}, Q_{21})$
8	8	8
8	8	8

The charge transfer dynamics from this initial state was then obtained by usual real time propagation using the Bulirsch-Stoer extrapolation integrator at the 10^{th} order with 10^{-8} accuracy for the SPF propagation, and using a short-time Lanczos integrator at the 8^{th} order with 10^{-8} accuracy for the coefficients of the multiconfiguration expansion.

IV. MCTDH OPERATOR FILE FOR THE 21-DIMENSIONAL MODEL

We provide here the MCTDH operator file that contains all parameters and an operator description for the 21-dimensional model that can be used as an input for the MCTDH package. The nuclear coordinate system used here does not diagonalize the frequency matrix

of the donor state as opposed to Eq. (1). Instead, the orientation is chosen so that only c_1 is nonvanishing while other components are strictly zero, $c_{j \neq 1} = 0$. This orientation is important because the Hamiltonian remains in a product form when switching the interstate coupling to its absolute value.

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HAMILTONIAN-SECTION

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1		3 KE						
1		4 KE						
1		5 KE						
1		6 KE						
1		7 KE						
1		8 KE						
1		9 KE						
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1		16 KE						
1		17 KE						
1		18 KE						
1		19 KE						
1		20 KE						
1		21 KE						
1		22 KE						
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d_2		1 S1&1	3 q					
d_3		1 S1&1	4 q					
D_1_1		1 S1&1	2 q ²					
D_2_2		1 S1&1	3 q ²					
D_3_3		1 S1&1	4 q ²					
D_4_4		1 S1&1	5 q ²					
D_5_5		1 S1&1	6 q ²					
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A_14_18	1 S2&2	15 q	19 q
A_14_19	1 S2&2	15 q	20 q
A_14_20	1 S2&2	15 q	21 q
A_14_21	1 S2&2	15 q	22 q
A_15_16	1 S2&2	16 q	17 q
A_15_17	1 S2&2	16 q	18 q
A_15_18	1 S2&2	16 q	19 q
A_15_19	1 S2&2	16 q	20 q
A_15_20	1 S2&2	16 q	21 q
A_15_21	1 S2&2	16 q	22 q
A_16_17	1 S2&2	17 q	18 q
A_16_18	1 S2&2	17 q	19 q
A_16_19	1 S2&2	17 q	20 q
A_16_20	1 S2&2	17 q	21 q
A_16_21	1 S2&2	17 q	22 q

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A_17_18 |1 S2&2 |18 q |19 q
A_17_19 |1 S2&2 |18 q |20 q
A_17_20 |1 S2&2 |18 q |21 q
A_17_21 |1 S2&2 |18 q |22 q
A_18_19 |1 S2&2 |19 q |20 q
A_18_20 |1 S2&2 |19 q |21 q
A_18_21 |1 S2&2 |19 q |22 q
A_19_20 |1 S2&2 |20 q |21 q
A_19_21 |1 S2&2 |20 q |22 q
A_20_21 |1 S2&2 |21 q |22 q
c_1      |1 S1&2 |2 q
END-HAMILTONIAN-SECTION
END-OPERATOR

```

V. PARAMETERS OF THE FULL DIMENSIONAL MODEL

Here we present the parameters of the full dimensional model according to Eq. (1).

j	omega_j	K_j	c_j
1	5.6554e-04	1.3837e-01	4.0798e-09
2	6.5092e-04	-1.4322e-01	-8.5595e-09
3	1.0991e-03	2.0785e-02	-1.1014e-05
4	1.2233e-03	-1.1604e-02	-6.9122e-06
5	1.3957e-03	-4.9998e-03	2.9312e-08
6	1.4020e-03	3.6552e-02	-2.6295e-09
7	1.5888e-03	1.0177e+00	7.0992e-07
8	1.7501e-03	2.5868e-02	8.9449e-06
9	1.8047e-03	2.5265e-02	-4.7423e-08
10	1.8415e-03	-1.1240e-02	9.7335e-08
11	1.9714e-03	-1.6890e+00	6.7276e-08
12	2.6515e-03	-3.2506e+00	-5.6456e-09
13	2.7032e-03	-2.3315e-02	-8.2783e-09
14	2.8298e-03	-4.5056e-02	-3.1534e-08
15	3.2294e-03	-1.6676e+00	-2.4366e-07
16	3.2798e-03	2.9570e-02	1.7116e-08
17	3.3386e-03	5.9753e-02	1.0617e-08
18	3.4625e-03	-1.1312e-01	3.3414e-06
19	3.5733e-03	1.6815e+01	-1.7248e-08
20	3.6293e-03	-1.5550e-01	-5.2702e-08
21	3.7434e-03	1.6356e+01	9.5351e-08
22	3.7962e-03	6.1174e-02	4.1056e-08
23	4.0593e-03	2.6112e-02	-3.1204e-05
24	4.1562e-03	-1.9257e-02	9.1490e-06
25	4.1688e-03	1.0908e-01	6.6151e-08
26	4.1903e-03	1.4610e+01	-3.8032e-07
27	4.3627e-03	-7.7202e-03	-1.9517e-08
28	4.4468e-03	3.5307e-03	4.9496e-09

29	4.5228e-03	1.0612e-02	-7.7225e-09
30	4.5385e-03	-1.2383e-02	7.7820e-09
31	4.5938e-03	-5.5103e-03	-2.8530e-09
32	4.7091e-03	-1.0510e+00	-1.9083e-07
33	4.7531e-03	6.0248e-03	-5.1110e-09
34	4.8935e-03	-2.2542e-02	-1.3018e-05
35	4.9449e-03	8.7848e-03	-1.0113e-09
36	5.0893e-03	-2.9925e+00	-1.2469e-07
37	5.2023e-03	7.5918e-02	2.2438e-07
38	5.2128e-03	-1.9199e+01	1.6927e-06
39	5.2179e-03	9.3893e-02	-2.9061e-08
40	5.2720e-03	6.6567e-01	-3.6429e-05
41	5.4837e-03	-1.0939e-01	1.1306e-05
42	5.4848e-03	-1.4288e-02	1.3377e-06
43	5.5957e-03	1.8503e+00	-7.6785e-08
44	5.7862e-03	1.7757e-02	-2.4933e-08
45	5.8280e-03	3.2148e+00	2.9235e-07
46	5.9676e-03	-5.7432e-03	-3.4245e-08
47	6.0061e-03	-7.8699e-03	3.3481e-09
48	6.0660e-03	1.3673e-01	7.2883e-05
49	6.1977e-03	-5.1797e+00	-2.7158e-07
50	6.2241e-03	-6.8189e-02	4.8751e-05
51	6.2259e-03	2.2204e-03	-1.1184e-06
52	6.2554e-03	-9.3810e-04	3.8152e-08
53	6.3642e-03	5.3466e-03	4.9512e-08
54	6.5840e-03	4.5728e-03	-2.3856e-08
55	6.7673e-03	1.9904e+00	-1.6924e-07
56	6.8328e-03	1.3695e+00	2.0936e-07
57	6.8938e-03	2.5310e-04	4.6517e-06
58	6.9538e-03	3.2525e+00	1.8196e-07
59	6.9741e-03	1.0378e-03	-7.9082e-09
60	6.9762e-03	1.8281e-02	1.6008e-08
61	7.0440e-03	2.3673e+00	3.9809e-08
62	7.6096e-03	1.9749e+00	-3.3097e-07
63	1.3689e-02	-3.3755e+00	4.1278e-07
64	1.4097e-02	-1.1283e-02	3.0393e-08
65	1.4099e-02	1.5926e-01	-7.8111e-08
66	1.4123e-02	8.7573e-04	4.1519e-07
67	1.4129e-02	-2.4483e-04	2.8273e-05
68	1.4155e-02	-1.3325e-03	-7.2145e-08
69	1.4244e-02	7.8176e-01	-1.4795e-07
70	1.4270e-02	1.3652e-03	4.5938e-09
71	1.4365e-02	4.8294e-03	-6.3788e-06
72	1.4372e-02	-6.1328e-03	1.9728e-09
73	1.4372e-02	-1.3356e-02	-1.0911e-08
74	1.4374e-02	-2.9728e-01	-1.3302e-07
75	1.4454e-02	-6.5271e-01	1.2285e-07

76	1.4553e-02	-6.2647e-01	5.3133e-08
77	1.4918e-02	-2.8848e-04	-1.7552e-09
78	1.5047e-02	-4.1770e-05	2.3197e-09

J_{ji} =

j\i	1	2	3	4	5	6
1	8.4899e-02	9.7074e-01	-2.7490e-03	-2.6104e-04	7.6414e-03	-1.7941e-01
2	9.7074e-01	-8.4367e-02	-4.2410e-04	5.6013e-04	1.6932e-01	1.3913e-02
3	2.7490e-03	4.2410e-04	4.6767e-01	-4.7156e-01	-1.3399e-03	-2.1871e-03
4	2.6104e-04	-5.6013e-04	-4.7156e-01	4.5371e-01	2.2154e-03	1.3080e-03
5	7.6414e-03	1.6932e-01	1.3399e-03	-2.2154e-03	-3.6102e-02	9.7851e-01
6	-1.7941e-01	1.3913e-02	2.1871e-03	-1.3080e-03	9.7851e-01	3.5045e-02
7	8.6442e-04	-1.3011e-03	2.2191e-04	-2.3433e-03	2.0788e-03	-1.9019e-03
8	-4.7967e-04	1.6709e-03	1.4283e-01	-3.4607e-01	6.9340e-04	-1.6664e-03
9	5.8926e-03	6.3151e-02	-1.0902e-03	2.0275e-03	-2.3952e-04	-8.9804e-03
10	-6.9037e-02	-4.2205e-04	1.3446e-03	-3.7637e-03	-1.0605e-02	5.9403e-04
11	-4.8002e-04	-3.2291e-04	-5.8219e-05	-1.4259e-04	6.5246e-04	3.4753e-04
12	9.4716e-04	9.4436e-04	1.1123e-04	-5.2619e-05	4.8816e-04	4.9529e-04
13	-1.0559e-03	-2.5586e-02	-1.2562e-04	3.8925e-04	7.2018e-04	-4.4167e-02
14	-2.9438e-02	1.2940e-03	4.6342e-04	-5.8011e-04	-6.0554e-02	-1.2835e-03
15	5.1091e-04	-7.1450e-04	-9.6970e-05	-1.9076e-04	1.7346e-04	-6.4899e-05
16	-2.0302e-03	-3.6656e-02	-5.6923e-05	-1.0024e-04	9.3371e-04	-4.0172e-02
17	4.6803e-02	-1.6177e-03	1.5320e-04	-5.2693e-04	5.1523e-02	7.3481e-04
18	2.3846e-05	2.3389e-03	6.9340e-01	6.5989e-01	-4.5820e-04	-1.9297e-05
19	3.8728e-05	-3.3559e-04	2.3791e-03	2.7920e-03	-1.8455e-04	-9.7342e-05
20	-1.3146e-05	-1.2904e-03	-2.2795e-04	1.1893e-04	1.1418e-04	4.5938e-03
21	5.7816e-05	-7.6731e-05	3.1305e-04	9.2613e-04	-2.3144e-04	7.5705e-06
22	4.4858e-02	-1.9249e-03	-2.5760e-04	9.6537e-05	2.7896e-02	4.1930e-04
23	2.2897e-04	2.3782e-04	1.0707e-01	3.8291e-02	-2.4416e-04	7.0483e-05
24	6.2484e-04	-2.8381e-04	-1.0318e-01	-6.5031e-02	3.0217e-04	-1.6815e-05
25	7.1772e-02	-2.9415e-03	8.8636e-04	3.7490e-04	3.2757e-02	6.9975e-04
26	-8.1277e-04	3.7574e-04	6.3290e-04	6.5825e-04	-4.7612e-04	-5.3430e-05
27	5.5363e-03	3.9458e-04	-7.4916e-06	-2.0689e-04	2.0351e-02	3.2294e-04
28	2.6566e-04	1.7443e-02	-8.7746e-06	-2.2394e-04	2.2062e-05	-5.1395e-03
29	7.4779e-04	1.6518e-02	-1.5651e-04	-3.8931e-05	-2.4703e-05	-1.2696e-03
30	-3.9615e-04	-1.2814e-02	8.3537e-05	1.2981e-04	2.5807e-04	-9.9157e-03
31	3.2764e-02	-1.1583e-03	1.4758e-04	4.4273e-05	2.8304e-02	5.3685e-04
32	-1.5035e-04	5.2665e-05	-1.9640e-04	1.0645e-04	-2.1140e-05	2.4183e-05
33	-2.2330e-02	6.5073e-04	7.1403e-05	1.7902e-04	-5.7332e-03	-8.9713e-05
34	2.4180e-05	-3.5583e-04	-8.2574e-02	-6.9175e-02	1.2940e-05	-3.1172e-05
35	3.4977e-03	7.0821e-02	-2.2556e-04	-7.3139e-05	-5.3597e-04	2.1470e-02
36	1.6831e-04	1.1708e-04	9.0998e-05	-1.5237e-04	-7.0347e-06	-1.1092e-04
37	5.6355e-05	2.2298e-04	-3.1048e-04	2.5325e-04	2.8698e-05	1.3060e-02
38	2.9112e-04	9.9485e-05	2.0366e-03	-1.0404e-03	5.1271e-05	9.5375e-05
39	-1.1115e-02	4.8275e-04	-1.3121e-04	2.7398e-05	-2.3678e-02	-3.0319e-04
40	1.3080e-05	6.4748e-05	4.0004e-02	-3.1976e-02	-1.3186e-04	5.4013e-05

41	3.9693e-03	-4.9397e-04	-1.1562e-01	-5.1570e-02	4.3438e-03	8.4401e-05
42	-3.4434e-02	1.5406e-03	-1.3481e-02	-5.9961e-03	-3.6215e-02	-7.3052e-04
43	-1.7185e-06	1.0412e-04	1.4269e-04	2.9309e-05	1.2384e-05	5.4334e-05
44	2.0905e-03	4.5497e-02	4.2567e-05	-3.3185e-05	-9.9545e-04	5.0992e-02
45	1.9603e-04	-4.3650e-05	-3.3617e-04	-1.1023e-04	-3.0798e-05	2.7627e-05
46	3.9294e-03	-1.8925e-04	7.4483e-05	-5.9849e-06	-7.4815e-03	5.6538e-05
47	-3.0128e-03	-7.5418e-02	2.1186e-04	9.1004e-05	7.3704e-04	-3.1487e-02
48	2.9727e-05	2.7624e-04	9.4649e-02	4.0049e-02	-1.6249e-04	2.2376e-05
49	2.0884e-04	-2.9918e-04	-1.0508e-04	-1.4825e-04	8.1660e-05	3.9434e-05
50	-2.9089e-04	-1.3367e-04	-6.7214e-02	-2.0081e-02	7.1189e-04	5.5786e-05
51	-1.3233e-02	3.6434e-04	1.4802e-03	4.5502e-04	2.5581e-02	5.5493e-04
52	-2.0702e-03	-3.9593e-02	2.9624e-05	5.9855e-05	5.6373e-04	-2.5426e-02
53	-3.4842e-04	-6.4753e-04	2.0333e-05	4.2736e-05	9.2846e-03	2.2000e-04
54	1.6407e-03	2.3018e-02	-1.9606e-04	5.8467e-05	3.7557e-05	-4.1954e-03
55	-7.1895e-05	-1.8881e-04	1.9102e-04	5.1793e-05	2.4266e-05	3.3150e-05
56	7.2632e-05	-4.7206e-05	-1.2268e-04	-1.6749e-05	-1.4470e-05	-1.3747e-05
57	2.8867e-05	-4.4239e-05	3.1970e-03	1.3776e-02	9.1924e-05	-7.7907e-05
58	-5.7207e-05	-7.2744e-06	3.4192e-04	1.7923e-04	-2.1760e-05	8.2073e-07
59	5.3290e-05	-6.0558e-03	5.9132e-05	-1.6243e-05	-1.5971e-04	-1.8629e-03
60	-1.5079e-04	8.8230e-06	-3.0619e-05	4.4837e-05	5.8638e-03	2.6460e-05
61	1.7161e-05	-3.8032e-05	5.0322e-05	6.1517e-05	-1.0357e-04	9.0338e-05
62	1.3355e-04	-3.2618e-04	2.4882e-04	1.8846e-04	-1.3595e-06	2.1372e-05
63	1.5651e-05	3.7746e-05	1.4289e-05	2.3514e-05	1.4732e-05	1.5586e-06
64	1.0432e-03	-9.1159e-05	-2.7364e-05	2.2147e-05	-6.7795e-03	-1.3789e-04
65	9.1110e-05	-1.5058e-05	-1.2869e-05	1.5386e-05	-5.5550e-04	-5.1543e-05
66	-5.2595e-05	4.5342e-04	1.5421e-04	-1.4952e-04	2.2029e-04	-1.3243e-02
67	5.7764e-06	-2.4790e-05	-1.0663e-02	1.0490e-02	1.1274e-05	-1.9071e-04
68	1.6730e-03	-1.1447e-04	2.7314e-06	-3.6221e-06	-1.2730e-02	-2.2901e-04
69	3.0848e-06	-1.0149e-05	-1.3498e-05	2.5609e-05	-5.5485e-06	-9.7363e-06
70	4.9293e-05	1.2654e-03	-6.7304e-06	-1.1252e-06	-5.6006e-05	2.7934e-03
71	4.9053e-06	-4.4073e-06	1.6840e-03	-2.2755e-03	-1.7097e-05	-2.6393e-05
72	-2.4468e-03	4.8681e-04	7.1522e-06	-8.0496e-06	-2.0258e-03	-1.8294e-03
73	1.1425e-03	9.7759e-04	8.8022e-06	-8.0841e-06	9.5753e-04	-4.1688e-03
74	4.5328e-06	-6.2502e-05	1.9534e-05	-5.4607e-05	1.1851e-05	1.9904e-04
75	-1.8834e-05	2.7336e-05	-2.4552e-05	-7.3620e-05	1.9731e-05	-3.3502e-06
76	-7.8286e-06	4.3756e-06	4.7077e-05	4.2087e-05	-1.6568e-05	-2.2914e-05
77	8.5717e-04	2.1703e-04	-2.8379e-05	-3.0143e-05	-2.8414e-03	-5.6380e-05
78	-2.9764e-04	-6.4410e-04	5.8094e-06	-2.7796e-06	-9.4924e-05	3.1380e-03

j\i	7	8	9	10	11	12
1	-8.6442e-04	-4.7967e-04	5.8926e-03	-6.9037e-02	4.8002e-04	-9.4716e-04
2	1.3011e-03	1.6709e-03	6.3151e-02	-4.2205e-04	3.2291e-04	-9.4436e-04
3	2.2191e-04	-1.4283e-01	1.0902e-03	-1.3446e-03	-5.8219e-05	1.1123e-04
4	-2.3433e-03	3.4607e-01	-2.0275e-03	3.7637e-03	-1.4259e-04	-5.2619e-05
5	-2.0788e-03	6.9340e-04	-2.3952e-04	-1.0605e-02	-6.5246e-04	-4.8816e-04
6	1.9019e-03	-1.6664e-03	-8.9804e-03	5.9403e-04	-3.4753e-04	-4.9529e-04
7	-9.7447e-01	-4.4210e-04	1.2048e-03	-1.8518e-03	-2.0355e-01	4.9778e-02

8	4.4210e-04	9.1244e-01	-1.5914e-02	1.5581e-02	7.6305e-04	-8.6494e-04
9	-1.2048e-03	-1.5914e-02	6.1030e-03	9.9380e-01	-3.6545e-03	1.8631e-05
10	1.8518e-03	1.5581e-02	9.9380e-01	-5.3594e-03	-3.3321e-03	-7.5838e-05
11	-2.0355e-01	-7.6305e-04	3.6545e-03	3.3321e-03	9.7508e-01	8.5474e-03
12	4.9778e-02	8.6494e-04	-1.8631e-05	7.5838e-05	8.5474e-03	9.7684e-01
13	1.9032e-04	2.1658e-03	5.9595e-04	-4.1800e-02	4.6735e-04	7.0622e-04
14	-6.1641e-05	1.0461e-03	-5.2031e-02	8.8613e-04	-2.4763e-04	-7.3550e-04
15	-4.5978e-03	4.0836e-05	7.7482e-05	1.7301e-04	3.5210e-02	-1.9399e-01
16	-1.7539e-05	-1.8510e-04	-1.7650e-04	-4.0064e-02	-1.3171e-05	4.9935e-04
17	2.5741e-04	9.8363e-04	3.9342e-02	-3.5433e-05	-2.1433e-04	4.4015e-04
18	-1.4814e-03	1.2325e-01	-5.1920e-04	1.3444e-03	-7.9829e-05	-7.1964e-05
19	-1.8590e-02	-6.7922e-04	-2.2344e-04	-1.8676e-04	7.6753e-03	-2.4386e-02
20	-1.0151e-04	-1.1106e-04	-1.1890e-04	-1.0493e-02	-1.0079e-04	3.0960e-04
21	4.3761e-02	5.6997e-05	-1.4993e-04	1.5341e-04	7.0028e-03	2.4491e-02
22	4.7149e-04	4.4814e-04	2.6214e-02	6.5163e-05	-2.7516e-05	4.5620e-04
23	-3.6199e-05	-2.7598e-02	2.4375e-04	-2.6330e-04	-1.5428e-04	2.7986e-04
24	2.6848e-04	-6.9084e-02	3.5523e-04	-7.6628e-04	1.7057e-05	-4.1873e-06
25	6.0291e-05	4.2647e-04	-1.7189e-03	2.1449e-05	2.0193e-05	-2.4624e-04
26	2.0948e-02	-4.0157e-04	-1.5055e-05	7.4836e-06	4.2609e-03	-1.7423e-02
27	6.1234e-05	3.0742e-05	1.1679e-02	-1.5720e-04	-7.4592e-05	2.8921e-05
28	-7.9761e-05	-8.7606e-05	1.3476e-04	-3.5229e-04	-5.2501e-05	-1.3041e-04
29	-4.1738e-05	6.8216e-05	5.5731e-05	-4.1194e-03	3.0783e-05	-1.0816e-05
30	1.6366e-05	2.3044e-04	-6.6883e-05	-1.7187e-02	6.0418e-06	1.5058e-04
31	-6.6427e-06	6.3481e-05	7.4815e-03	-7.6670e-05	-7.5015e-06	1.2288e-04
32	3.5984e-03	5.9851e-05	-3.0347e-05	1.5532e-05	-1.2313e-02	3.9840e-02
33	-5.1458e-05	-7.8462e-05	7.3616e-03	-1.1492e-04	1.0219e-05	-6.6795e-05
34	1.4373e-04	-7.2374e-02	4.1854e-04	-7.0522e-04	3.6974e-05	-3.5025e-05
35	-1.1295e-04	8.9161e-05	2.3650e-04	-8.6803e-04	5.9864e-05	-2.7839e-04
36	-3.6740e-02	1.1730e-04	-9.6087e-05	-1.6139e-04	-1.0148e-02	7.0738e-03
37	1.6606e-04	-1.2010e-04	2.5339e-04	1.6633e-02	1.8342e-05	1.4443e-05
38	-4.1467e-02	6.9891e-04	-9.9095e-05	3.1516e-05	-3.2636e-04	-2.1906e-03
39	1.7297e-04	-1.7647e-04	-2.1035e-02	2.0775e-04	8.7670e-05	5.8374e-05
40	1.4582e-03	1.9885e-04	-1.7468e-05	1.7959e-04	5.9073e-05	4.3558e-05
41	-1.1208e-04	-1.6914e-02	2.6491e-03	-1.5580e-04	9.3601e-05	-4.3102e-05
42	-2.2787e-05	-1.9928e-03	-2.1595e-02	2.7764e-05	3.7685e-05	9.4990e-05
43	2.3430e-03	-8.4480e-05	-2.1823e-05	2.4522e-04	5.8147e-02	9.8823e-03
44	-1.4456e-04	-5.1245e-04	2.5245e-04	4.7512e-02	-1.7668e-04	-1.2948e-04
45	1.2224e-02	-1.3954e-04	1.0642e-05	-1.8059e-05	-5.5086e-03	-1.6384e-02
46	1.9550e-05	1.9742e-04	1.7278e-02	3.0187e-05	-1.6702e-05	-7.5110e-05
47	1.2924e-04	2.2379e-04	-2.1465e-04	-2.0256e-02	5.4746e-05	1.0252e-04
48	1.6149e-04	8.1733e-03	-8.2675e-05	9.7613e-05	4.9128e-05	-7.6096e-05
49	-1.8636e-02	9.7829e-05	3.4304e-05	1.8366e-04	4.3617e-02	-1.7434e-03
50	-1.2022e-04	-1.9046e-02	8.7290e-04	-2.2425e-04	-1.3844e-04	2.9699e-05
51	3.3593e-06	4.4074e-04	3.3096e-02	-1.3047e-04	-5.5700e-05	3.6617e-05
52	1.1111e-04	-2.7423e-05	-9.5637e-05	6.7600e-03	-8.6304e-06	1.6889e-04
53	5.3601e-05	4.9892e-05	3.6733e-03	6.0154e-05	-9.5734e-05	-1.2865e-05
54	-1.2216e-05	8.5001e-05	3.3715e-05	-1.9925e-03	-1.1909e-05	-2.1255e-05

55	2.6846e-03	-2.5405e-05	4.9431e-05	2.5570e-05	-1.3587e-03	-5.1193e-03
56	4.9857e-03	-5.2577e-05	1.8027e-05	-5.8847e-05	-1.1562e-02	-1.7899e-02
57	-2.0480e-05	5.7970e-03	3.5067e-05	-2.7046e-05	3.1290e-05	-1.0464e-05
58	5.4011e-03	-5.2397e-05	-1.6242e-05	2.3589e-05	2.7037e-03	9.2826e-03
59	1.1395e-05	-3.5547e-05	-3.6192e-04	4.7200e-03	-2.1761e-04	4.5770e-06
60	-1.6251e-06	4.9848e-05	8.9495e-03	1.6028e-04	1.6342e-04	-5.6749e-06
61	4.3550e-03	-7.9841e-05	-1.4017e-04	1.2866e-04	-4.2985e-03	-1.2358e-02
62	3.2151e-03	-3.3857e-06	5.8382e-05	-5.5549e-07	1.1346e-03	-3.7504e-02
63	-4.7460e-03	1.2413e-04	2.5465e-06	-8.5186e-05	-1.8113e-02	2.7163e-03
64	-1.5053e-04	-4.4626e-05	-7.2787e-03	3.7316e-06	9.1672e-04	5.5079e-04
65	1.9051e-03	-1.8272e-06	-6.0666e-04	-7.9378e-05	-1.1648e-02	-6.9478e-03
66	4.1164e-05	1.0305e-04	-5.0502e-05	-1.5607e-02	7.6263e-05	1.0148e-05
67	-1.7059e-05	3.1993e-03	-5.2724e-05	-2.0529e-04	5.4621e-05	9.2302e-06
68	1.2367e-06	-9.0441e-05	-1.6179e-02	5.3883e-05	2.4085e-05	2.1557e-05
69	1.3577e-03	-3.0327e-05	4.2780e-06	-1.9277e-05	-6.4984e-03	-5.1255e-03
70	-1.6143e-05	-5.5932e-05	1.1917e-05	4.3310e-03	-2.3587e-05	-1.2157e-05
71	1.3250e-04	-6.6244e-03	3.2414e-05	-9.7977e-05	3.8419e-05	7.9200e-06
72	-1.4443e-04	4.9126e-05	2.0406e-03	-3.7494e-03	-4.3854e-05	-6.1628e-06
73	-3.0152e-04	6.2956e-05	-9.0486e-04	-8.7001e-03	-1.2314e-04	-3.0832e-05
74	-7.1296e-03	-1.1087e-04	-6.5565e-06	4.2339e-04	-3.4544e-03	-6.2751e-04
75	-8.7258e-04	6.5692e-06	-2.9499e-05	5.2158e-05	8.1354e-03	3.0317e-03
76	-1.0892e-03	-2.7037e-06	2.7899e-05	3.5553e-05	1.3096e-04	1.2218e-03
77	-1.7712e-06	3.4141e-05	4.5589e-03	-2.0026e-05	9.0716e-07	-2.5996e-06
78	1.3391e-06	4.0415e-05	-3.1213e-05	-4.7561e-03	1.5561e-05	-3.2845e-06

j\i	13	14	15	16	17	18
1	1.0559e-03	2.9438e-02	5.1091e-04	2.0302e-03	4.6803e-02	2.3846e-05
2	2.5586e-02	-1.2940e-03	-7.1450e-04	3.6656e-02	-1.6177e-03	2.3389e-03
3	-1.2562e-04	4.6342e-04	9.6970e-05	-5.6923e-05	-1.5320e-04	-6.9340e-01
4	3.8925e-04	-5.8011e-04	1.9076e-04	-1.0024e-04	5.2693e-04	-6.5989e-01
5	-7.2018e-04	6.0554e-02	1.7346e-04	-9.3371e-04	5.1523e-02	-4.5820e-04
6	4.4167e-02	1.2835e-03	-6.4899e-05	4.0172e-02	7.3481e-04	-1.9297e-05
7	1.9032e-04	-6.1641e-05	4.5978e-03	-1.7539e-05	-2.5741e-04	1.4814e-03
8	-2.1658e-03	-1.0461e-03	4.0836e-05	1.8510e-04	9.8363e-04	1.2325e-01
9	-5.9595e-04	5.2031e-02	7.7482e-05	1.7650e-04	3.9342e-02	-5.1920e-04
10	4.1800e-02	-8.8613e-04	1.7301e-04	4.0064e-02	-3.5433e-05	1.3444e-03
11	4.6735e-04	-2.4763e-04	-3.5210e-02	-1.3171e-05	2.1433e-04	7.9829e-05
12	7.0622e-04	-7.3550e-04	1.9399e-01	4.9935e-04	-4.4015e-04	7.1964e-05
13	-6.5481e-04	9.7150e-01	-2.1071e-04	-6.7403e-05	-2.0596e-01	2.1201e-04
14	9.7150e-01	6.6727e-04	-9.1243e-05	1.7202e-01	-2.7062e-04	3.9827e-04
15	2.1071e-04	9.1243e-05	9.3431e-01	-1.1583e-03	-6.0743e-05	-8.9459e-04
16	-6.7403e-05	1.7202e-01	1.1583e-03	1.1542e-03	9.2784e-01	1.4892e-04
17	2.0596e-01	2.7062e-04	-6.0743e-05	-9.2784e-01	1.0818e-03	3.6877e-04
18	-2.1201e-04	-3.9827e-04	-8.9459e-04	-1.4892e-04	3.6877e-04	2.0914e-02
19	-5.7005e-04	-1.1415e-04	2.8717e-01	3.4069e-03	-4.1768e-03	4.0109e-03
20	-7.7421e-05	-9.2439e-03	-1.9480e-03	-4.5397e-04	-1.0680e-01	-3.4818e-04
21	4.2567e-04	-8.2987e-04	-6.1665e-02	7.4583e-04	-2.6326e-04	1.2444e-03

22	1.8076e-02	-8.9971e-05	-9.0813e-04	2.7859e-02	-4.6477e-04	3.7797e-04
23	5.9115e-04	4.9638e-04	3.0559e-04	-7.3908e-05	-1.9089e-04	-2.2701e-01
24	2.4233e-04	7.2419e-05	-1.3194e-04	2.0219e-03	1.6376e-04	-5.5839e-02
25	4.6849e-02	1.0101e-04	2.9821e-04	2.9696e-01	-1.5525e-04	3.2369e-04
26	1.6276e-04	-3.0961e-04	1.6854e-02	-1.5175e-03	-1.0686e-03	1.6488e-03
27	-3.7974e-02	-2.2385e-04	1.3213e-05	-3.8113e-02	-2.5984e-05	2.1505e-04
28	-2.0724e-04	-5.8280e-02	1.8771e-04	-8.4867e-05	-6.7376e-02	1.9590e-05
29	1.5774e-04	-1.0201e-01	1.0155e-04	-1.1532e-05	-1.6061e-01	-1.5217e-04
30	1.6483e-04	-1.9131e-03	1.3953e-04	6.0472e-05	1.0478e-01	-1.1590e-04
31	-3.4309e-02	1.3957e-04	5.3665e-05	-6.6002e-02	6.5114e-05	1.2266e-04
32	-5.9678e-05	1.7466e-04	2.7014e-03	-9.9593e-05	7.9789e-05	-3.8167e-04
33	-4.8063e-02	8.5588e-05	1.8447e-05	-1.1427e-02	1.3021e-04	-1.6809e-05
34	2.0559e-05	-1.5236e-04	2.0237e-04	1.2262e-04	9.0877e-05	-6.4126e-02
35	-2.5442e-05	-3.8531e-02	4.9173e-05	1.1776e-04	-1.1002e-01	-1.4027e-05
36	1.4173e-04	-1.2485e-04	-9.1399e-03	-2.6320e-05	1.2116e-04	-2.3452e-04
37	2.9301e-04	-1.0407e-02	-1.0280e-04	6.1532e-04	-1.5092e-02	5.4377e-04
38	-4.8816e-04	6.2289e-04	1.6920e-02	-8.4864e-04	7.1870e-04	-2.9770e-03
39	-2.1853e-02	-3.4567e-05	-7.3835e-05	-4.9362e-02	-7.7934e-05	-8.6662e-05
40	-2.4028e-05	-6.7355e-05	-3.5248e-04	-1.9472e-05	-1.3824e-04	-7.7702e-02
41	1.1981e-03	-5.6250e-05	-2.0330e-05	7.7515e-03	-2.7743e-05	-2.6059e-02
42	-1.0287e-02	-1.1803e-05	1.0092e-05	-6.5983e-02	8.0986e-05	-2.9696e-03
43	5.7480e-05	-5.5369e-05	-1.0805e-02	3.4532e-05	1.0107e-05	-1.0820e-04
44	-5.7415e-05	-1.8759e-02	-5.7816e-05	5.9908e-05	-1.0354e-01	-1.7549e-05
45	5.5683e-05	-1.2753e-04	-2.2779e-02	-5.6003e-05	-7.0312e-05	1.0489e-04
46	1.3098e-02	-2.7789e-04	-2.1225e-06	-3.2803e-04	-4.9260e-04	6.2139e-05
47	8.6636e-05	5.6821e-02	-2.0737e-06	-1.4777e-04	9.8353e-02	-1.0180e-05
48	1.1134e-04	8.2863e-05	-2.1265e-05	-1.2173e-04	-8.3609e-05	-3.2368e-02
49	-3.7296e-05	6.5873e-05	-1.5624e-02	-2.5170e-04	4.4453e-04	-8.2631e-04
50	-4.9602e-04	-1.3413e-04	1.2841e-04	1.1107e-03	-6.4770e-05	3.8262e-02
51	-2.1874e-02	1.4615e-04	2.9683e-05	4.2119e-02	5.9585e-05	-9.4964e-04
52	-2.5409e-05	1.5989e-02	-1.0034e-05	2.1997e-05	6.1713e-02	1.1345e-04
53	2.6634e-02	1.0335e-04	-1.6446e-05	7.8796e-05	-1.3784e-05	-5.2101e-05
54	1.6042e-04	2.9806e-03	1.2895e-05	8.7220e-05	-2.9817e-02	8.7190e-05
55	-4.1786e-05	-3.0511e-05	1.1143e-02	7.2089e-05	-1.0265e-04	-2.0798e-04
56	1.7373e-05	-8.3552e-05	-4.8934e-03	5.6723e-05	-1.3969e-04	3.9506e-04
57	1.9860e-05	1.7970e-05	-9.5980e-06	1.1009e-05	4.0373e-05	2.3785e-03
58	4.7605e-06	-4.6266e-05	5.2587e-03	-4.8087e-05	-5.4514e-05	-8.7440e-05
59	-1.9218e-05	-3.7696e-03	4.4235e-05	-1.3372e-03	-5.4565e-03	-2.3382e-05
60	1.8501e-03	-1.6931e-04	5.0593e-05	3.1429e-02	-1.9406e-04	-4.3383e-06
61	3.4655e-05	3.2482e-06	5.9560e-03	2.3890e-06	-2.0709e-04	2.6320e-04
62	2.4286e-05	-3.9996e-05	-9.5087e-03	-2.9913e-05	6.3244e-05	-3.9268e-04
63	8.2197e-06	1.7720e-04	-2.7725e-03	-1.4269e-04	2.1574e-04	-4.4184e-04
64	1.8815e-04	1.7878e-05	-1.4637e-04	-1.0056e-02	2.0290e-06	5.4350e-06
65	4.6519e-06	-6.6292e-07	1.8647e-03	-7.9559e-04	-1.8832e-05	7.6104e-05
66	-1.0975e-05	-3.6604e-04	4.1939e-06	-7.7048e-06	9.6388e-03	-8.2034e-05
67	1.3458e-05	7.6962e-08	-5.0294e-06	-3.0010e-05	1.4226e-04	6.2951e-03
68	-6.5189e-04	6.9915e-07	-8.8624e-06	-1.6474e-02	7.1631e-06	-8.7501e-06

69	-3.0455e-07	-3.0144e-05	-2.3254e-04	3.4635e-05	-5.9715e-05	1.3187e-04
70	-2.1759e-05	-9.1380e-04	-2.0429e-06	7.0267e-06	-2.5080e-03	-3.6409e-06
71	-2.5993e-06	7.1891e-06	-8.8663e-05	2.8648e-06	7.2537e-06	-4.6513e-03
72	-1.3566e-03	-1.8173e-04	1.2289e-04	-6.2649e-03	4.6174e-04	-3.2288e-06
73	5.8724e-04	-4.3159e-04	2.7400e-04	2.6926e-03	1.0606e-03	-8.4634e-06
74	-6.9992e-07	3.3779e-05	5.9740e-03	7.9077e-06	-3.5417e-05	-1.0668e-04
75	1.9063e-07	2.8493e-05	-3.4391e-03	-3.7531e-05	9.4024e-05	-1.0457e-04
76	4.3971e-07	1.8181e-05	-4.4177e-04	-2.4945e-05	3.7517e-05	3.0330e-05
77	2.0843e-04	2.6543e-05	1.0244e-06	-8.5650e-04	4.6443e-05	2.8569e-07
78	1.0255e-05	-4.4388e-05	-2.7676e-06	1.1972e-05	-1.2643e-03	3.2004e-05

j\i	19	20	21	22	23	24
1	3.8728e-05	-1.3146e-05	-5.7816e-05	4.4858e-02	2.2897e-04	6.2484e-04
2	-3.3559e-04	-1.2904e-03	7.6731e-05	-1.9249e-03	2.3782e-04	-2.8381e-04
3	-2.3791e-03	2.2795e-04	3.1305e-04	2.5760e-04	-1.0707e-01	1.0318e-01
4	-2.7920e-03	-1.1893e-04	9.2613e-04	-9.6537e-05	-3.8291e-02	6.5031e-02
5	-1.8455e-04	1.1418e-04	2.3144e-04	2.7896e-02	-2.4416e-04	3.0217e-04
6	-9.7342e-05	4.5938e-03	-7.5705e-06	4.1930e-04	7.0483e-05	-1.6815e-05
7	1.8590e-02	1.0151e-04	4.3761e-02	-4.7149e-04	3.6199e-05	-2.6848e-04
8	-6.7922e-04	-1.1106e-04	-5.6997e-05	4.4814e-04	-2.7598e-02	-6.9084e-02
9	-2.2344e-04	-1.1890e-04	1.4993e-04	2.6214e-02	2.4375e-04	3.5523e-04
10	-1.8676e-04	-1.0493e-02	-1.5341e-04	6.5163e-05	-2.6330e-04	-7.6628e-04
11	-7.6753e-03	1.0079e-04	7.0028e-03	2.7516e-05	1.5428e-04	-1.7057e-05
12	2.4386e-02	-3.0960e-04	2.4491e-02	-4.5620e-04	-2.7986e-04	4.1873e-06
13	5.7005e-04	7.7421e-05	4.2567e-04	-1.8076e-02	-5.9115e-04	-2.4233e-04
14	1.1415e-04	9.2439e-03	-8.2987e-04	8.9971e-05	-4.9638e-04	-7.2419e-05
15	2.8717e-01	-1.9480e-03	6.1665e-02	-9.0813e-04	3.0559e-04	-1.3194e-04
16	-3.4069e-03	4.5397e-04	7.4583e-04	-2.7859e-02	7.3908e-05	-2.0219e-03
17	-4.1768e-03	-1.0680e-01	2.6326e-04	-4.6477e-04	-1.9089e-04	1.6376e-04
18	4.0109e-03	-3.4818e-04	-1.2444e-03	3.7797e-04	-2.2701e-01	-5.5839e-02
19	-8.7981e-01	7.8363e-03	-2.2260e-01	9.1589e-03	-2.0286e-03	2.0092e-04
20	7.8363e-03	7.8451e-05	6.3265e-03	8.3661e-01	1.3702e-03	-3.3885e-03
21	2.2260e-01	-6.3265e-03	2.1230e-01	1.6690e-05	-1.3818e-03	6.9071e-04
22	9.1589e-03	8.3661e-01	-1.6690e-05	-5.1427e-04	-1.9132e-03	2.9901e-04
23	-2.0286e-03	1.3702e-03	1.3818e-03	-1.9132e-03	6.6376e-01	-3.4666e-01
24	2.0092e-04	-3.3885e-03	-6.9071e-04	2.9901e-04	-3.4666e-01	-9.1275e-01
25	-4.5028e-03	-4.1828e-01	7.7527e-03	-1.5473e-04	2.5864e-03	6.6632e-03
26	-2.4956e-01	7.1774e-03	8.9779e-01	-4.5082e-03	-3.5811e-03	6.3106e-05
27	-5.8377e-05	7.5581e-02	-7.9896e-04	2.5810e-04	-6.5241e-04	7.4721e-05
28	-9.2825e-04	-2.2181e-05	-7.9665e-04	-1.6358e-01	1.3100e-04	-8.9775e-04
29	-1.4190e-04	-1.7799e-04	1.0373e-03	6.1248e-02	7.4241e-05	-3.0754e-03
30	2.0449e-04	2.8823e-04	9.6254e-04	3.2289e-01	9.4347e-04	1.8100e-03
31	-1.7544e-03	-1.7491e-01	1.0759e-03	-1.1645e-04	2.7752e-04	-1.4098e-04
32	2.3368e-02	-1.0863e-03	-1.7899e-01	1.0023e-03	4.8734e-04	-1.8836e-04
33	-1.9637e-03	-1.8133e-01	8.5343e-04	1.4722e-04	1.3090e-04	-2.2442e-04
34	2.7164e-04	-8.9596e-04	-1.9851e-03	6.0762e-04	-5.1699e-01	1.0957e-01
35	-3.7249e-04	-2.0192e-04	-1.7024e-03	-2.9216e-01	-1.0336e-03	-4.0248e-03

36	5.3236e-03	-3.2817e-05	-8.1101e-02	6.7728e-04	3.8834e-04	-9.7666e-05
37	1.0058e-04	7.5991e-04	9.1994e-04	6.7797e-02	6.1309e-04	7.8719e-05
38	3.9789e-02	-8.8387e-04	-9.8920e-02	6.4092e-04	-1.9919e-03	-6.2430e-04
39	-7.9066e-04	-7.2946e-02	6.9862e-04	6.8572e-04	-1.3493e-04	-6.8809e-05
40	-2.8149e-03	1.3950e-04	4.5528e-03	4.3666e-04	-9.4020e-02	-5.2297e-03
41	1.2106e-03	-9.5620e-03	-2.2269e-03	7.8431e-05	-2.6600e-01	8.1547e-02
42	7.3306e-04	7.8409e-02	-5.1537e-04	9.0629e-05	-3.0997e-02	9.4130e-03
43	2.6640e-02	-1.9415e-04	-8.0530e-04	-5.3562e-05	9.6793e-05	-2.5588e-04
44	-2.3912e-04	-2.0426e-04	-1.0336e-03	-2.0578e-01	-1.3343e-04	-8.1609e-04
45	2.3150e-02	-6.1527e-05	6.5767e-02	-4.5104e-04	-8.7647e-04	2.4953e-04
46	9.7229e-05	2.7089e-02	-1.9687e-04	-7.1261e-04	-1.3859e-04	4.1850e-05
47	1.3702e-05	5.0604e-04	6.0666e-04	1.2615e-01	4.7368e-04	2.0125e-03
48	-1.6900e-03	5.3130e-04	2.9858e-03	-1.8586e-04	7.7451e-02	-3.9733e-02
49	1.3093e-01	-1.4538e-03	-1.5711e-01	8.3753e-04	2.2479e-04	-1.4830e-04
50	1.1116e-03	-4.0643e-03	-2.0664e-03	1.3194e-04	-1.3635e-01	4.5771e-02
51	-1.5059e-03	-1.6603e-01	5.9986e-04	1.6533e-05	3.0111e-03	-1.0113e-03
52	8.1324e-05	-1.6603e-04	6.7880e-04	1.0333e-01	6.8143e-05	1.0643e-03
53	2.1188e-04	4.6522e-02	1.0544e-04	-4.7796e-05	2.5040e-04	-1.3633e-04
54	6.0247e-05	6.0995e-05	-1.4354e-04	-3.0525e-02	-4.4120e-04	-7.0667e-04
55	2.0166e-02	-3.4506e-04	-2.6811e-02	6.0966e-05	6.5774e-04	-1.6901e-04
56	-3.2009e-02	2.7579e-04	6.4653e-02	-2.5235e-04	-2.2706e-04	6.2161e-06
57	-3.4445e-05	2.7220e-05	2.0654e-04	7.3503e-05	3.5208e-02	-1.3645e-02
58	9.3653e-03	9.0561e-05	-2.2248e-02	1.3345e-04	6.7151e-04	-1.7084e-04
59	-1.3769e-04	1.8636e-03	9.0884e-05	2.7141e-02	9.3313e-05	2.6995e-04
60	-2.2800e-04	-4.4266e-02	1.3022e-04	1.1619e-03	1.3998e-04	1.3751e-04
61	-4.5076e-02	5.2095e-04	4.3243e-02	-2.0816e-04	-4.6868e-05	-2.0625e-04
62	6.0418e-02	-5.9836e-04	-3.2460e-02	1.9606e-04	7.1300e-04	-2.6822e-04
63	3.7689e-02	-4.3126e-04	-8.0361e-02	3.8473e-04	5.2471e-05	5.4940e-05
64	1.1878e-03	4.8161e-03	1.7612e-05	2.3236e-06	3.2242e-06	3.0182e-05
65	-1.5234e-02	5.1525e-04	8.0884e-05	4.4442e-06	-3.3071e-05	2.9865e-05
66	-3.8961e-05	1.5269e-05	5.7030e-06	-5.8489e-03	-2.3181e-04	-6.6148e-04
67	6.0695e-05	3.6600e-05	4.5547e-05	-8.3080e-05	1.5148e-02	3.4459e-02
68	9.0449e-05	9.8689e-03	-2.9572e-05	-3.8758e-06	-5.8480e-05	-1.1464e-04
69	-1.9331e-02	1.8323e-04	1.7228e-02	-6.2258e-05	4.2474e-06	4.5995e-05
70	-1.3589e-05	1.6639e-05	1.6572e-05	-2.3002e-03	-1.9717e-05	-2.6429e-05
71	-1.1680e-04	1.3986e-05	1.9382e-04	1.7216e-05	-8.2641e-03	-5.4635e-03
72	7.1620e-05	-1.7458e-03	-2.4411e-04	3.9308e-04	-1.4274e-05	-1.3850e-05
73	2.0693e-04	7.4945e-04	-5.3949e-04	8.9044e-04	2.0144e-05	-2.2165e-05
74	4.4516e-03	-4.5418e-05	-1.1944e-02	1.0906e-05	-3.3859e-05	-1.0538e-04
75	2.3325e-02	-1.7396e-04	-1.1254e-02	5.4489e-06	3.0224e-06	-6.4239e-05
76	6.7840e-03	-8.2199e-05	-8.6451e-03	2.2266e-06	-2.9893e-06	-1.3349e-05
77	-2.0204e-05	-3.2838e-03	9.5521e-07	2.4957e-05	6.2794e-06	-3.9523e-06
78	1.0756e-05	1.3109e-06	3.3406e-05	4.8230e-03	2.4549e-06	-2.5401e-05

j\i	25	26	27	28	29	30
1	-7.1772e-02	8.1277e-04	-5.5363e-03	-2.6566e-04	-7.4779e-04	3.9615e-04
2	2.9415e-03	-3.7574e-04	-3.9458e-04	-1.7443e-02	-1.6518e-02	1.2814e-02

3	8.8636e-04	6.3290e-04	-7.4916e-06	-8.7746e-06	-1.5651e-04	8.3537e-05
4	3.7490e-04	6.5825e-04	-2.0689e-04	-2.2394e-04	-3.8931e-05	1.2981e-04
5	-3.2757e-02	4.7612e-04	-2.0351e-02	-2.2062e-05	2.4703e-05	-2.5807e-04
6	-6.9975e-04	5.3430e-05	-3.2294e-04	5.1395e-03	1.2696e-03	9.9157e-03
7	6.0291e-05	2.0948e-02	6.1234e-05	-7.9761e-05	-4.1738e-05	1.6366e-05
8	-4.2647e-04	4.0157e-04	-3.0742e-05	8.7606e-05	-6.8216e-05	-2.3044e-04
9	1.7189e-03	1.5055e-05	-1.1679e-02	-1.3476e-04	-5.5731e-05	6.6883e-05
10	-2.1449e-05	-7.4836e-06	1.5720e-04	3.5229e-04	4.1194e-03	1.7187e-02
11	2.0193e-05	4.2609e-03	-7.4592e-05	-5.2501e-05	3.0783e-05	6.0418e-06
12	-2.4624e-04	-1.7423e-02	2.8921e-05	-1.3041e-04	-1.0816e-05	1.5058e-04
13	4.6849e-02	1.6276e-04	-3.7974e-02	-2.0724e-04	1.5774e-04	1.6483e-04
14	1.0101e-04	-3.0961e-04	-2.2385e-04	-5.8280e-02	-1.0201e-01	-1.9131e-03
15	-2.9821e-04	-1.6854e-02	-1.3213e-05	-1.8771e-04	-1.0155e-04	-1.3953e-04
16	2.9696e-01	-1.5175e-03	-3.8113e-02	-8.4867e-05	-1.1532e-05	6.0472e-05
17	1.5525e-04	1.0686e-03	2.5984e-05	6.7376e-02	1.6061e-01	-1.0478e-01
18	-3.2369e-04	-1.6488e-03	-2.1505e-04	-1.9590e-05	1.5217e-04	1.1590e-04
19	4.5028e-03	2.4956e-01	5.8377e-05	9.2825e-04	1.4190e-04	-2.0449e-04
20	4.1828e-01	-7.1774e-03	-7.5581e-02	2.2181e-05	1.7799e-04	-2.8823e-04
21	7.7527e-03	8.9779e-01	-7.9896e-04	-7.9665e-04	1.0373e-03	9.6254e-04
22	1.5473e-04	4.5082e-03	-2.5810e-04	1.6358e-01	-6.1248e-02	-3.2289e-01
23	-2.5864e-03	3.5811e-03	6.5241e-04	-1.3100e-04	-7.4241e-05	-9.4347e-04
24	-6.6632e-03	-6.3106e-05	-7.4721e-05	8.9775e-04	3.0754e-03	-1.8100e-03
25	-1.9908e-04	-2.6419e-03	9.0887e-05	1.0915e-01	3.9941e-01	-2.9765e-01
26	-2.6419e-03	-1.7727e-01	4.6920e-04	-1.4016e-03	-2.4288e-03	2.3484e-03
27	9.0887e-05	4.6920e-04	1.6486e-03	-9.6975e-01	-2.1079e-03	-7.2892e-02
28	1.0915e-01	-1.4016e-03	-9.6975e-01	-1.6105e-03	5.7274e-04	5.5698e-04
29	3.9941e-01	-2.4288e-03	-2.1079e-03	5.7274e-04	-2.6902e-04	2.6896e-04
30	-2.9765e-01	2.3484e-03	-7.2892e-02	5.5698e-04	2.6896e-04	1.2342e-03
31	2.5177e-05	8.3634e-04	-2.0130e-04	6.4133e-02	-8.0466e-01	2.4763e-01
32	-1.3965e-03	-1.9557e-01	-1.8358e-04	3.6974e-05	-1.1812e-03	-2.4383e-03
33	-4.2959e-05	2.5258e-04	-7.5767e-04	-4.4899e-03	-3.5242e-01	-8.2533e-01
34	-2.0786e-04	2.6851e-03	3.0535e-06	2.8384e-04	-3.5865e-04	-1.9753e-04
35	5.8546e-01	-4.9228e-03	1.4808e-01	3.5037e-04	1.5820e-04	3.8025e-04
36	9.2843e-04	1.1720e-01	-1.6218e-04	-3.5344e-05	3.6757e-04	3.8114e-05
37	-9.4691e-03	-3.1692e-04	1.6377e-02	4.3886e-04	8.6268e-04	1.5931e-03
38	2.5805e-04	8.4963e-02	8.3704e-04	6.7989e-04	1.1774e-03	-8.9262e-04
39	2.0322e-04	-4.2086e-04	7.3963e-05	-3.3729e-02	-7.9304e-02	-1.4237e-01
40	-2.5413e-04	-1.1237e-03	3.0141e-04	-2.0798e-04	8.2424e-05	1.0133e-04
41	3.8743e-04	3.7480e-04	-1.6815e-04	1.7358e-03	-1.1207e-02	5.5390e-03
42	1.6691e-04	1.2826e-04	9.6976e-05	-1.1780e-02	9.5784e-02	-4.8368e-02
43	-7.8105e-04	-1.1074e-01	1.1347e-04	-1.8770e-04	-2.5669e-04	2.1587e-04
44	9.7053e-02	-8.3202e-04	7.3543e-02	1.1019e-04	6.5309e-05	8.9027e-05
45	-9.4118e-04	-1.3484e-01	1.2010e-05	-5.5908e-05	-2.8713e-04	8.8487e-05
46	1.1948e-03	-6.1295e-06	4.0231e-04	4.6029e-02	-1.7122e-02	-1.0178e-02
47	-2.8358e-01	2.2830e-03	-8.4683e-02	8.6946e-05	-5.0040e-05	5.0887e-05
48	-3.3387e-04	1.5571e-04	-6.9083e-06	1.3600e-05	1.3179e-04	1.8188e-04
49	-4.8891e-04	-5.6342e-02	-1.3575e-05	-1.7394e-04	-4.4657e-05	-4.0552e-05

50	4.4882e-04	2.3605e-04	5.9624e-05	-8.4568e-05	-1.9902e-03	-3.0080e-03
51	-2.3328e-04	-9.5652e-05	-1.5290e-04	-7.5175e-03	-8.9771e-02	-1.3624e-01
52	-1.4441e-01	1.3037e-03	-1.8763e-02	2.2545e-05	-7.3153e-05	-2.2586e-04
53	-2.2865e-05	-1.7111e-05	2.7345e-05	-6.1444e-02	5.8387e-02	5.2721e-02
54	9.9803e-02	-6.6114e-04	9.5215e-02	1.7067e-04	1.5221e-04	1.5334e-04
55	2.2496e-04	2.4297e-02	-1.5291e-04	-1.0037e-04	-1.6494e-04	-1.3825e-05
56	1.8483e-04	1.9985e-02	-4.5498e-05	1.0573e-05	2.2092e-05	-1.6805e-04
57	-3.5726e-05	-1.5522e-04	-7.7413e-05	2.3677e-05	9.2250e-05	1.1812e-04
58	7.6053e-06	4.7979e-03	-4.9220e-05	-6.4839e-05	9.4930e-05	1.9300e-04
59	-6.3955e-02	6.4333e-04	1.0729e-02	-7.1340e-04	1.2720e-03	2.2100e-03
60	-2.5961e-03	1.6998e-04	3.1654e-04	1.5328e-02	-3.1896e-02	-5.6823e-02
61	2.5109e-04	3.5861e-02	1.1004e-04	-2.0327e-04	5.1941e-05	2.8535e-05
62	-1.8500e-04	-2.0359e-02	-2.0563e-04	-9.2660e-05	-2.9137e-04	3.3056e-05
63	-4.3390e-04	-5.6650e-02	5.6747e-05	9.1150e-05	3.7022e-05	2.9701e-05
64	4.5031e-05	-3.1616e-04	-3.8655e-05	-1.2980e-02	-2.9568e-03	-5.5706e-03
65	9.6777e-05	4.2710e-03	-5.4707e-05	-1.0570e-03	-2.3124e-04	-4.6431e-04
66	2.5081e-02	-2.2859e-04	-2.3068e-02	-4.3345e-05	1.2178e-05	-3.8889e-06
67	6.3058e-04	-4.5637e-05	-3.3182e-04	-7.7355e-05	1.2823e-05	2.0112e-06
68	-1.1465e-05	-1.2161e-05	3.6646e-05	-2.6794e-02	-4.4967e-04	-1.0180e-02
69	4.4389e-05	7.0328e-03	-5.4468e-06	-1.2195e-05	4.3340e-06	-2.0558e-06
70	2.2181e-03	-2.6067e-06	7.7971e-03	-7.1364e-06	4.7115e-07	-1.1214e-05
71	-1.7913e-05	-1.0195e-04	-3.0671e-05	7.5190e-07	1.3792e-05	2.6188e-05
72	5.6693e-04	1.6919e-04	-2.8975e-03	-2.4138e-03	-8.8797e-03	-1.5384e-02
73	1.3341e-03	3.5625e-04	-6.7294e-03	1.0190e-03	3.8094e-03	6.6000e-03
74	1.3554e-05	8.5419e-03	3.2233e-04	1.9853e-05	2.3302e-05	4.0961e-05
75	-1.2407e-04	-1.2821e-02	-2.7333e-05	6.3554e-05	-5.1752e-05	-1.3160e-05
76	-4.2441e-05	-4.9626e-03	-5.8397e-05	-4.8551e-05	1.4179e-05	4.0508e-05
77	-5.7683e-05	5.9355e-06	3.1735e-05	-1.1639e-02	6.7903e-03	5.2163e-03
78	2.4535e-03	-1.4552e-05	1.0439e-02	-1.0615e-05	-9.1648e-05	6.0752e-05

j\i	31	32	33	34	35	36
1	3.2764e-02	-1.5035e-04	2.2330e-02	2.4180e-05	-3.4977e-03	1.6831e-04
2	-1.1583e-03	5.2665e-05	-6.5073e-04	-3.5583e-04	-7.0821e-02	1.1708e-04
3	-1.4758e-04	1.9640e-04	7.1403e-05	8.2574e-02	-2.2556e-04	-9.0998e-05
4	-4.4273e-05	-1.0645e-04	1.7902e-04	6.9175e-02	-7.3139e-05	1.5237e-04
5	2.8304e-02	-2.1140e-05	5.7332e-03	1.2940e-05	5.3597e-04	-7.0347e-06
6	5.3685e-04	2.4183e-05	8.9713e-05	-3.1172e-05	-2.1470e-02	-1.1092e-04
7	6.6427e-06	-3.5984e-03	-5.1458e-05	-1.4373e-04	-1.1295e-04	3.6740e-02
8	6.3481e-05	5.9851e-05	7.8462e-05	-7.2374e-02	-8.9161e-05	1.1730e-04
9	7.4815e-03	-3.0347e-05	-7.3616e-03	4.1854e-04	-2.3650e-04	-9.6087e-05
10	-7.6670e-05	1.5532e-05	1.1492e-04	-7.0522e-04	8.6803e-04	-1.6139e-04
11	7.5015e-06	1.2313e-02	1.0219e-05	-3.6974e-05	5.9864e-05	1.0148e-02
12	-1.2288e-04	-3.9840e-02	-6.6795e-05	3.5025e-05	-2.7839e-04	-7.0738e-03
13	3.4309e-02	5.9678e-05	-4.8063e-02	-2.0559e-05	-2.5442e-05	-1.4173e-04
14	-1.3957e-04	-1.7466e-04	8.5588e-05	1.5236e-04	-3.8531e-02	1.2485e-04
15	5.3665e-05	2.7014e-03	-1.8447e-05	2.0237e-04	-4.9173e-05	-9.1399e-03
16	6.6002e-02	9.9593e-05	-1.1427e-02	-1.2262e-04	1.1776e-04	2.6320e-05

17	6.5114e-05	7.9789e-05	-1.3021e-04	9.0877e-05	1.1002e-01	1.2116e-04
18	1.2266e-04	-3.8167e-04	1.6809e-05	-6.4126e-02	1.4027e-05	-2.3452e-04
19	-1.7544e-03	2.3368e-02	1.9637e-03	2.7164e-04	3.7249e-04	5.3236e-03
20	-1.7491e-01	-1.0863e-03	1.8133e-01	-8.9596e-04	2.0192e-04	-3.2817e-05
21	-1.0759e-03	1.7899e-01	8.5343e-04	1.9851e-03	-1.7024e-03	8.1101e-02
22	-1.1645e-04	1.0023e-03	-1.4722e-04	6.0762e-04	2.9216e-01	6.7728e-04
23	2.7752e-04	4.8734e-04	-1.3090e-04	-5.1699e-01	1.0336e-03	3.8834e-04
24	-1.4098e-04	-1.8836e-04	2.2442e-04	1.0957e-01	4.0248e-03	-9.7666e-05
25	-2.5177e-05	1.3965e-03	-4.2959e-05	2.0786e-04	5.8546e-01	-9.2843e-04
26	-8.3634e-04	1.9557e-01	2.5258e-04	-2.6851e-03	-4.9228e-03	-1.1720e-01
27	2.0130e-04	1.8358e-04	-7.5767e-04	-3.0535e-06	1.4808e-01	1.6218e-04
28	-6.4133e-02	-3.6974e-05	-4.4899e-03	-2.8384e-04	3.5037e-04	3.5344e-05
29	8.0466e-01	1.1812e-03	-3.5242e-01	3.5865e-04	1.5820e-04	-3.6757e-04
30	-2.4763e-01	2.4383e-03	-8.2533e-01	1.9753e-04	3.8025e-04	-3.8114e-05
31	-3.3319e-04	6.0069e-04	3.4125e-04	7.1020e-04	4.6237e-01	-3.1056e-04
32	6.0069e-04	9.2971e-01	2.8225e-03	1.4443e-04	-1.0065e-03	1.2686e-01
33	-3.4125e-04	-2.8225e-03	-1.2188e-03	4.6739e-04	-2.5433e-01	-1.0201e-03
34	7.1020e-04	1.4443e-04	-4.6739e-04	-6.6890e-01	4.4775e-04	1.3089e-03
35	-4.6237e-01	1.0065e-03	-2.5433e-01	-4.4775e-04	-3.5101e-04	-9.5198e-05
36	-3.1056e-04	1.2686e-01	1.0201e-03	1.3089e-03	9.5198e-05	-9.3889e-01
37	-4.8556e-02	-1.3872e-03	1.9583e-01	-2.8249e-03	-6.1781e-04	1.1376e-03
38	-1.4502e-03	1.5443e-01	1.3865e-03	1.5761e-02	-4.1567e-05	1.1354e-02
39	-7.7539e-04	-6.1974e-04	1.7924e-03	1.9370e-04	7.9537e-02	9.8205e-04
40	-2.5396e-04	-5.0516e-03	1.0873e-03	4.0791e-01	-3.3402e-04	2.7446e-03
41	4.9931e-05	1.1949e-04	-5.3012e-04	-1.1507e-01	-5.6925e-02	-2.0774e-03
42	-1.0883e-05	1.5021e-04	1.7916e-05	-1.3329e-02	4.9053e-01	-4.0870e-04
43	2.0279e-04	-8.0878e-02	-2.5914e-04	-3.3929e-04	-5.2797e-04	-1.6783e-02
44	-2.3915e-02	5.7200e-04	-2.2969e-01	4.4794e-04	2.4191e-04	-3.0202e-04
45	1.4597e-04	-1.1629e-01	-4.8514e-04	-9.6348e-04	2.3587e-04	-1.4480e-01
46	-7.8046e-04	8.8570e-05	-5.4662e-05	-4.2510e-05	-1.5559e-02	-3.6299e-05
47	1.5018e-01	-7.7548e-05	2.3461e-03	1.7585e-04	2.6854e-05	-1.8077e-04
48	-3.7563e-05	-1.0093e-03	1.7445e-04	2.2474e-01	-1.6463e-04	3.7402e-04
49	1.3801e-04	4.9417e-02	1.6690e-04	-2.4901e-04	-9.7211e-05	-2.1897e-01
50	-1.3506e-04	2.9733e-04	-1.6894e-05	-1.3275e-01	-5.5615e-04	-4.5617e-07
51	4.9459e-05	-1.1404e-04	-1.2940e-04	2.8817e-03	-2.2641e-02	5.3984e-04
52	8.7673e-02	8.7970e-05	-1.8915e-02	1.3131e-04	-1.2153e-04	1.1336e-04
53	1.5390e-04	-1.2052e-04	-1.0253e-04	-2.1390e-05	2.1365e-02	-6.7367e-05
54	-2.5079e-02	1.4731e-04	-2.8220e-02	-2.0323e-04	-4.2812e-05	2.2658e-05
55	1.8112e-04	-7.3596e-03	-5.9335e-05	4.5663e-04	-7.1144e-05	-2.0694e-02
56	9.0981e-05	-3.3692e-03	4.4198e-05	-1.3140e-05	4.6176e-05	8.6029e-02
57	2.0424e-06	-9.8948e-06	1.6227e-05	6.2376e-02	-3.7813e-05	3.0618e-04
58	5.4439e-05	-1.3889e-02	-1.2779e-04	5.2235e-04	-8.3525e-05	-3.0851e-02
59	3.6142e-02	1.0924e-04	-2.6556e-02	-4.7558e-05	-1.2661e-03	-4.7866e-05
60	1.4101e-03	-4.7230e-05	-1.2975e-03	8.3283e-05	2.6827e-02	1.4186e-04
61	6.3180e-05	-6.3847e-03	8.6204e-05	8.4662e-05	-2.7733e-04	2.9703e-02
62	1.4810e-04	-1.1261e-02	-5.7926e-05	5.9523e-04	-9.2609e-06	-1.0720e-02
63	-1.0600e-04	4.0186e-03	4.1321e-05	-1.2395e-04	-6.1755e-06	-3.3656e-02

64	-1.4803e-05	-2.8189e-04	-5.6340e-05	-5.8603e-06	-1.1189e-02	1.0154e-03
65	-2.6073e-05	3.4501e-03	-5.7933e-05	-1.1283e-05	-8.8958e-04	-1.2972e-02
66	-9.0554e-03	5.9139e-05	-2.8755e-02	-2.7843e-05	9.0130e-06	1.8091e-05
67	-1.3639e-04	6.6618e-06	-4.2656e-04	2.0965e-03	-6.9003e-07	7.0373e-05
68	8.2520e-06	-1.1012e-05	-1.7819e-05	-1.8330e-05	-8.6804e-03	-8.1028e-06
69	1.6110e-05	-7.0534e-03	-1.7506e-05	-1.2618e-05	1.5535e-05	-5.6655e-03
70	3.4778e-04	-1.0836e-05	9.5265e-04	3.9043e-07	3.7261e-05	-2.1469e-05
71	-1.8623e-05	-1.2877e-04	9.8588e-06	1.4669e-02	-2.6268e-05	5.3524e-05
72	-1.9883e-03	1.1823e-04	4.2108e-03	4.0521e-06	4.4745e-03	1.7626e-05
73	-4.5851e-03	2.3986e-04	9.7381e-03	-2.2556e-05	-1.9484e-03	3.4529e-06
74	2.2502e-04	6.1356e-03	-4.9339e-04	2.1123e-04	-6.5733e-06	3.6731e-04
75	-4.3122e-05	-5.4412e-04	1.1976e-05	-1.8582e-05	-1.9072e-05	1.7364e-03
76	-1.3143e-05	1.6239e-03	5.7450e-05	-3.2385e-05	1.6945e-05	-1.1927e-03
77	-7.8117e-05	-5.4360e-06	-1.7949e-05	-2.5396e-06	3.7358e-03	6.5080e-06
78	3.1906e-03	3.4820e-05	-8.5842e-03	6.0739e-06	1.1152e-05	-4.3711e-06

j\i	37	38	39	40	41	42
1	5.6355e-05	-2.9112e-04	-1.1115e-02	1.3080e-05	3.9693e-03	-3.4434e-02
2	2.2298e-04	-9.9485e-05	4.8275e-04	6.4748e-05	-4.9397e-04	1.5406e-03
3	3.1048e-04	2.0366e-03	1.3121e-04	-4.0004e-02	1.1562e-01	1.3481e-02
4	-2.5325e-04	-1.0404e-03	-2.7398e-05	3.1976e-02	5.1570e-02	5.9961e-03
5	2.8698e-05	-5.1271e-05	-2.3678e-02	-1.3186e-04	4.3438e-03	-3.6215e-02
6	1.3060e-02	-9.5375e-05	-3.0319e-04	5.4013e-05	8.4401e-05	-7.3052e-04
7	-1.6606e-04	-4.1467e-02	-1.7297e-04	-1.4582e-03	1.1208e-04	2.2787e-05
8	-1.2010e-04	-6.9891e-04	-1.7647e-04	1.9885e-04	-1.6914e-02	-1.9928e-03
9	2.5339e-04	9.9095e-05	-2.1035e-02	-1.7468e-05	2.6491e-03	-2.1595e-02
10	1.6633e-02	-3.1516e-05	2.0775e-04	1.7959e-04	-1.5580e-04	2.7764e-05
11	-1.8342e-05	-3.2636e-04	-8.7670e-05	-5.9073e-05	-9.3601e-05	-3.7685e-05
12	-1.4443e-05	-2.1906e-03	-5.8374e-05	-4.3558e-05	4.3102e-05	-9.4990e-05
13	-2.9301e-04	-4.8816e-04	2.1853e-02	2.4028e-05	-1.1981e-03	1.0287e-02
14	1.0407e-02	6.2289e-04	3.4567e-05	6.7355e-05	5.6250e-05	1.1803e-05
15	-1.0280e-04	-1.6920e-02	-7.3835e-05	-3.5248e-04	-2.0330e-05	1.0092e-05
16	-6.1532e-04	-8.4864e-04	4.9362e-02	1.9472e-05	-7.7515e-03	6.5983e-02
17	-1.5092e-02	-7.1870e-04	-7.7934e-05	-1.3824e-04	-2.7743e-05	8.0986e-05
18	5.4377e-04	2.9770e-03	-8.6662e-05	-7.7702e-02	-2.6059e-02	-2.9696e-03
19	1.0058e-04	-3.9789e-02	-7.9066e-04	-2.8149e-03	1.2106e-03	7.3306e-04
20	7.5991e-04	8.8387e-04	-7.2946e-02	1.3950e-04	-9.5620e-03	7.8409e-02
21	-9.1994e-04	-9.8920e-02	-6.9862e-04	-4.5528e-03	2.2269e-03	5.1537e-04
22	6.7797e-02	-6.4092e-04	6.8572e-04	4.3666e-04	7.8431e-05	9.0629e-05
23	6.1309e-04	1.9919e-03	-1.3493e-04	-9.4020e-02	-2.6600e-01	-3.0997e-02
24	7.8719e-05	6.2430e-04	-6.8809e-05	-5.2297e-03	8.1547e-02	9.4130e-03
25	9.4691e-03	2.5805e-04	-2.0322e-04	2.5413e-04	-3.8743e-04	-1.6691e-04
26	3.1692e-04	8.4963e-02	4.2086e-04	1.1237e-03	-3.7480e-04	-1.2826e-04
27	-1.6377e-02	8.3704e-04	-7.3963e-05	-3.0141e-04	1.6815e-04	-9.6976e-05
28	-4.3886e-04	6.7989e-04	3.3729e-02	2.0798e-04	-1.7358e-03	1.1780e-02
29	-8.6268e-04	1.1774e-03	7.9304e-02	-8.2424e-05	1.1207e-02	-9.5784e-02
30	-1.5931e-03	-8.9262e-04	1.4237e-01	-1.0133e-04	-5.5390e-03	4.8368e-02

31	-4.8556e-02	1.4502e-03	-7.7539e-04	-2.5396e-04	4.9931e-05	-1.0883e-05
32	-1.3872e-03	-1.5443e-01	-6.1974e-04	-5.0516e-03	1.1949e-04	1.5021e-04
33	-1.9583e-01	1.3865e-03	-1.7924e-03	-1.0873e-03	5.3012e-04	-1.7916e-05
34	-2.8249e-03	-1.5761e-02	1.9370e-04	4.0791e-01	-1.1507e-01	-1.3329e-02
35	6.1781e-04	-4.1567e-05	-7.9537e-02	3.3402e-04	5.6925e-02	-4.9053e-01
36	1.1376e-03	-1.1354e-02	9.8205e-04	2.7446e-03	-2.0774e-03	-4.0870e-04
37	-2.0371e-02	-7.8787e-03	9.3287e-01	-2.1346e-03	3.3831e-02	-2.4637e-01
38	7.8787e-03	9.1785e-01	8.3250e-03	4.0339e-02	-2.9619e-02	-4.4136e-03
39	9.3287e-01	-8.3250e-03	2.0459e-02	5.6453e-03	-2.4192e-04	-2.7735e-03
40	-2.1346e-03	-4.0339e-02	5.6453e-03	1.5597e-01	-8.5350e-01	-1.0074e-01
41	3.3831e-02	2.9619e-02	-2.4192e-04	-8.5350e-01	-9.8756e-02	-1.1212e-02
42	-2.4637e-01	4.4136e-03	-2.7735e-03	-1.0074e-01	-1.1212e-02	-1.6344e-03
43	-1.6853e-04	-4.1329e-02	2.0129e-04	7.1964e-04	-5.3010e-04	9.8392e-04
44	-1.9876e-03	-1.6531e-03	1.7608e-01	6.6512e-04	-4.1861e-02	3.6515e-01
45	-6.4856e-05	-3.7002e-02	-9.2875e-05	-3.5059e-04	-4.3486e-03	-8.2054e-04
46	-7.9338e-02	5.6516e-04	-2.6715e-04	-1.9903e-04	-4.9139e-04	2.6193e-03
47	7.6199e-04	1.9254e-04	-8.4737e-02	3.3965e-05	7.2096e-02	-6.1765e-01
48	-8.2752e-04	-1.0060e-02	2.1845e-04	1.4235e-01	3.4398e-01	3.9605e-02
49	-6.9165e-04	-1.2433e-01	-3.5687e-04	-4.6988e-03	1.6793e-03	2.2946e-04
50	1.1337e-03	9.3952e-03	1.6127e-04	-1.6596e-01	-1.2261e-01	-1.3955e-02
51	-3.8021e-04	1.0774e-03	2.6260e-04	3.6829e-03	2.0707e-03	2.6950e-04
52	2.0970e-03	5.0986e-04	-1.6932e-01	4.5348e-05	3.9481e-02	-3.4260e-01
53	-1.0749e-01	4.5969e-04	-1.2195e-03	-3.2449e-04	2.4999e-04	-1.4399e-04
54	-1.4177e-03	-5.7446e-04	1.2844e-01	-1.3850e-04	-1.7849e-02	1.5338e-01
55	-5.8122e-05	-3.8926e-02	-1.2813e-04	-6.7930e-04	3.6851e-04	-3.9996e-04
56	-5.3833e-04	-1.2809e-01	-7.8925e-04	-4.6427e-03	8.5888e-04	1.8791e-04
57	-2.8397e-04	-8.5070e-04	1.1448e-05	4.2182e-02	7.1810e-02	8.2481e-03
58	7.7519e-05	4.7436e-02	2.6576e-04	2.6452e-03	-2.6093e-04	-2.4710e-04
59	-2.2731e-03	-2.1511e-04	3.9461e-02	-2.2766e-05	6.9103e-03	-5.8923e-02
60	4.4580e-02	1.2705e-04	2.1423e-03	2.2178e-04	2.1561e-04	-2.5233e-03
61	-3.2117e-04	-1.5963e-02	1.1757e-05	-3.9110e-04	-1.0111e-04	1.6177e-04
62	-8.1078e-04	-2.1002e-01	-1.0334e-03	-6.4993e-03	1.6286e-03	1.7810e-05
63	6.2248e-04	1.5800e-01	7.7615e-04	5.3878e-03	-6.6150e-04	-5.8609e-05
64	-1.6553e-02	3.7353e-04	-2.0560e-04	-5.9340e-05	1.1809e-05	1.1254e-04
65	-1.3255e-03	-4.4065e-03	-3.5674e-05	-7.3691e-05	8.8236e-05	7.9928e-05
66	3.4555e-06	5.6025e-06	-3.1478e-03	-4.5615e-04	-2.8220e-03	2.1748e-02
67	-2.3376e-04	-8.5204e-04	-3.3938e-05	3.0060e-02	2.0715e-02	2.7128e-03
68	-2.1158e-02	1.4898e-04	-2.0438e-04	-1.8399e-04	-2.4199e-05	-7.1528e-05
69	-7.3570e-05	-2.2664e-02	-1.1447e-04	-6.5709e-04	7.8226e-05	6.5564e-06
70	-8.0307e-06	-1.7701e-05	-3.3036e-03	7.9139e-06	8.7706e-05	-8.0498e-04
71	-1.7170e-04	-1.1851e-03	-8.0992e-06	2.7924e-02	-2.3125e-02	-2.7122e-03
72	1.6967e-02	1.5939e-04	-1.1437e-02	1.4189e-04	5.8285e-04	-4.9489e-03
73	-6.9423e-03	5.6628e-04	-2.6981e-02	-2.6213e-05	1.3004e-03	-1.1423e-02
74	-3.5724e-05	8.9454e-03	1.4323e-03	7.0715e-04	-5.0335e-04	5.1948e-04
75	7.2746e-05	2.9081e-02	1.6592e-04	1.0032e-03	-1.4847e-04	-1.6332e-05
76	9.5032e-05	1.8544e-02	1.1809e-04	5.9909e-04	-8.7699e-05	-3.7175e-06
77	7.2707e-03	-2.9259e-05	7.5242e-05	3.7479e-05	-2.2039e-06	1.0387e-05

78	7.2060e-05	1.6025e-05	-6.2836e-03	7.4355e-06	1.4446e-04	-1.2521e-03
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j\i	43	44	45	46	47	48
1	1.7185e-06	2.0905e-03	1.9603e-04	-3.9294e-03	3.0128e-03	-2.9727e-05
2	-1.0412e-04	4.5497e-02	-4.3650e-05	1.8925e-04	7.5418e-02	-2.7624e-04
3	1.4269e-04	-4.2567e-05	3.3617e-04	7.4483e-05	2.1186e-04	9.4649e-02
4	2.9309e-05	3.3185e-05	1.1023e-04	-5.9849e-06	9.1004e-05	4.0049e-02
5	-1.2384e-05	-9.9545e-04	-3.0798e-05	7.4815e-03	-7.3704e-04	1.6249e-04
6	-5.4334e-05	5.0992e-02	2.7627e-05	-5.6538e-05	3.1487e-02	-2.2376e-05
7	2.3430e-03	1.4456e-04	-1.2224e-02	1.9550e-05	1.2924e-04	1.6149e-04
8	8.4480e-05	-5.1245e-04	-1.3954e-04	-1.9742e-04	-2.2379e-04	-8.1733e-03
9	2.1823e-05	2.5245e-04	1.0642e-05	-1.7278e-02	2.1465e-04	8.2675e-05
10	-2.4522e-04	4.7512e-02	-1.8059e-05	-3.0187e-05	2.0256e-02	-9.7613e-05
11	5.8147e-02	1.7668e-04	5.5086e-03	-1.6702e-05	5.4746e-05	4.9128e-05
12	9.8823e-03	1.2948e-04	1.6384e-02	-7.5110e-05	1.0252e-04	-7.6096e-05
13	5.7480e-05	5.7415e-05	-5.5683e-05	1.3098e-02	8.6636e-05	1.1134e-04
14	-5.5369e-05	1.8759e-02	1.2753e-04	-2.7789e-04	5.6821e-02	8.2863e-05
15	1.0805e-02	-5.7816e-05	-2.2779e-02	2.1225e-06	2.0737e-06	2.1265e-05
16	3.4532e-05	-5.9908e-05	5.6003e-05	-3.2803e-04	-1.4777e-04	-1.2173e-04
17	-1.0107e-05	-1.0354e-01	-7.0312e-05	4.9260e-04	-9.8353e-02	8.3609e-05
18	1.0820e-04	-1.7549e-05	1.0489e-04	-6.2139e-05	1.0180e-05	3.2368e-02
19	-2.6640e-02	-2.3912e-04	2.3150e-02	-9.7229e-05	-1.3702e-05	1.6900e-03
20	1.9415e-04	-2.0426e-04	-6.1527e-05	-2.7089e-02	-5.0604e-04	-5.3130e-04
21	-8.0530e-04	1.0336e-03	-6.5767e-02	-1.9687e-04	6.0666e-04	2.9858e-03
22	5.3562e-05	-2.0578e-01	-4.5104e-04	7.1261e-04	-1.2615e-01	1.8586e-04
23	-9.6793e-05	-1.3343e-04	-8.7647e-04	1.3859e-04	-4.7368e-04	-7.7451e-02
24	2.5588e-04	-8.1609e-04	2.4953e-04	-4.1850e-05	-2.0125e-03	3.9733e-02
25	-7.8105e-04	-9.7053e-02	9.4118e-04	1.1948e-03	-2.8358e-01	-3.3387e-04
26	-1.1074e-01	8.3202e-04	1.3484e-01	-6.1295e-06	2.2830e-03	1.5571e-04
27	1.1347e-04	-7.3543e-02	-1.2010e-05	4.0231e-04	-8.4683e-02	-6.9083e-06
28	-1.8770e-04	-1.1019e-04	5.5908e-05	4.6029e-02	8.6946e-05	1.3600e-05
29	-2.5669e-04	-6.5309e-05	2.8713e-04	-1.7122e-02	-5.0040e-05	1.3179e-04
30	2.1587e-04	-8.9027e-05	-8.8487e-05	-1.0178e-02	5.0887e-05	1.8188e-04
31	-2.0279e-04	-2.3915e-02	1.4597e-04	7.8046e-04	-1.5018e-01	3.7563e-05
32	8.0878e-02	5.7200e-04	-1.1629e-01	-8.8570e-05	7.7548e-05	1.0093e-03
33	-2.5914e-04	2.2969e-01	4.8514e-04	-5.4662e-05	2.3461e-03	1.7445e-04
34	3.3929e-04	4.4794e-04	-9.6348e-04	4.2510e-05	-1.7585e-04	-2.2474e-01
35	-5.2797e-04	-2.4191e-04	-2.3587e-04	-1.5559e-02	2.6854e-05	-1.6463e-04
36	1.6783e-02	-3.0202e-04	-1.4480e-01	3.6299e-05	1.8077e-04	-3.7402e-04
37	1.6853e-04	-1.9876e-03	-6.4856e-05	7.9338e-02	-7.6199e-04	8.2752e-04
38	-4.1329e-02	1.6531e-03	3.7002e-02	5.6516e-04	1.9254e-04	-1.0060e-02
39	-2.0129e-04	1.7608e-01	-9.2875e-05	2.6715e-04	8.4737e-02	-2.1845e-04
40	-7.1964e-04	6.6512e-04	-3.5059e-04	1.9903e-04	-3.3965e-05	-1.4235e-01
41	5.3010e-04	-4.1861e-02	-4.3486e-03	4.9139e-04	-7.2096e-02	-3.4398e-01
42	-9.8392e-04	3.6515e-01	-8.2054e-04	-2.6193e-03	6.1765e-01	-3.9605e-02
43	-5.9970e-01	1.0948e-04	-6.6694e-01	-3.3815e-04	-5.6520e-04	4.2864e-03
44	-1.0948e-04	1.8364e-04	-6.3284e-05	1.5904e-02	-4.0623e-04	-1.9155e-04

45	6.6694e-01	-6.3284e-05	-2.3378e-01	4.6499e-04	6.5692e-04	6.8790e-03
46	-3.3815e-04	-1.5904e-02	-4.6499e-04	3.0716e-03	-4.4239e-01	2.3466e-04
47	-5.6520e-04	4.0623e-04	-6.5692e-04	-4.4239e-01	-4.1262e-03	-1.2160e-04
48	4.2864e-03	1.9155e-04	-6.8790e-03	2.3466e-04	-1.2160e-04	-3.4312e-01
49	-3.8131e-01	-1.4960e-03	5.9110e-01	7.2249e-04	-7.7331e-05	-1.0868e-03
50	-1.0915e-03	-1.8269e-02	3.1437e-03	-1.3788e-03	7.1974e-03	8.1943e-01
51	-2.4537e-05	-8.1827e-01	-1.3399e-03	-2.5423e-03	3.4395e-01	-1.8895e-02
52	-6.2393e-04	-7.5334e-04	-9.3462e-04	8.6377e-01	3.5217e-03	1.2205e-03
53	5.6242e-04	1.3621e-01	-7.9109e-04	1.4984e-03	-3.8144e-01	-7.0659e-04
54	3.9012e-04	3.0930e-04	-1.5710e-04	2.1004e-01	1.2360e-03	4.5653e-04
55	1.0755e-01	-3.1729e-04	1.8542e-01	-1.1950e-04	-1.4798e-04	-2.7240e-03
56	-4.6011e-02	-2.8000e-04	-6.6832e-02	-6.6470e-06	2.3708e-04	1.9986e-03
57	2.1007e-04	1.8865e-04	-1.2636e-05	1.1996e-04	3.7823e-05	6.0754e-03
58	4.3706e-02	6.1208e-04	7.8587e-02	-4.8797e-05	-1.0018e-04	-3.1416e-03
59	1.4912e-04	4.9244e-03	-2.2883e-04	5.6206e-02	9.5500e-04	-8.0060e-05
60	5.1551e-04	-1.2275e-01	2.1679e-04	2.4191e-03	-1.4749e-02	1.3889e-05
61	6.2981e-02	-2.4509e-05	-5.2592e-02	-6.9597e-05	2.5099e-05	-2.2148e-05
62	-6.1462e-02	-2.1218e-04	2.0589e-01	6.2534e-05	-5.6243e-05	-1.3770e-03
63	-2.3044e-02	1.0274e-04	1.4919e-02	5.1765e-05	-7.4089e-06	-7.8409e-04
64	4.6526e-05	1.4802e-02	1.6731e-03	-1.3447e-05	2.8963e-03	-1.2216e-05
65	-3.2849e-04	1.1939e-03	-2.1074e-02	-3.2696e-05	2.2165e-04	1.5529e-04
66	3.0194e-05	3.1956e-05	3.6221e-05	-6.4140e-03	-5.0187e-05	2.4023e-04
67	2.3633e-05	2.9812e-05	2.5780e-05	-5.8857e-05	-3.9244e-05	-1.5426e-02
68	9.6863e-06	1.9163e-02	3.7162e-05	2.8520e-05	-1.1588e-02	4.6465e-05
69	1.3734e-02	-1.3186e-05	-1.2407e-02	-6.2669e-06	2.2713e-05	2.7141e-04
70	3.9745e-05	-7.0450e-06	-2.8353e-05	1.0933e-02	1.5103e-04	2.5794e-05
71	-5.4374e-04	-4.7140e-05	-7.7203e-05	-8.1351e-06	2.9914e-06	-6.9520e-03
72	6.3620e-04	2.8871e-02	1.2262e-04	-3.2428e-03	8.5939e-03	-8.2485e-06
73	1.2952e-03	-1.2415e-02	2.1198e-04	-7.3792e-03	-3.7134e-03	1.7315e-06
74	2.9824e-02	-9.0092e-05	5.2886e-03	3.8838e-04	-2.1881e-05	-1.0563e-04
75	-8.4799e-03	3.2385e-05	1.2529e-02	4.6166e-05	-2.5743e-05	-2.3126e-04
76	-2.4093e-03	7.2843e-07	4.5152e-04	4.3311e-05	1.2279e-05	-5.8690e-05
77	-1.7044e-06	-2.1634e-03	1.8132e-05	-1.6835e-05	4.3345e-03	-3.9055e-06
78	-5.9316e-06	-8.9418e-06	-1.1268e-06	-8.9897e-03	-5.3658e-05	-1.1054e-05

j\i	49	50	51	52	53	54
1	2.0884e-04	-2.9089e-04	-1.3233e-02	-2.0702e-03	3.4842e-04	-1.6407e-03
2	-2.9918e-04	-1.3367e-04	3.6434e-04	-3.9593e-02	6.4753e-04	-2.3018e-02
3	1.0508e-04	6.7214e-02	-1.4802e-03	-2.9624e-05	2.0333e-05	-1.9606e-04
4	1.4825e-04	2.0081e-02	-4.5502e-04	-5.9855e-05	4.2736e-05	5.8467e-05
5	8.1660e-05	7.1189e-04	2.5581e-02	5.6373e-04	-9.2846e-03	-3.7557e-05
6	3.9434e-05	5.5786e-05	5.5493e-04	-2.5426e-02	-2.2000e-04	4.1954e-03
7	1.8636e-02	1.2022e-04	-3.3593e-06	-1.1111e-04	5.3601e-05	-1.2216e-05
8	9.7829e-05	-1.9046e-02	4.4074e-04	-2.7423e-05	-4.9892e-05	-8.5001e-05
9	3.4304e-05	8.7290e-04	3.3096e-02	-9.5637e-05	-3.6733e-03	-3.3715e-05
10	1.8366e-04	-2.2425e-04	-1.3047e-04	6.7600e-03	-6.0154e-05	1.9925e-03
11	-4.3617e-02	1.3844e-04	5.5700e-05	8.6304e-06	-9.5734e-05	-1.1909e-05

12	1.7434e-03	-2.9699e-05	-3.6617e-05	-1.6889e-04	-1.2865e-05	-2.1255e-05
13	3.7296e-05	4.9602e-04	2.1874e-02	2.5409e-05	2.6634e-02	1.6042e-04
14	-6.5873e-05	1.3413e-04	-1.4615e-04	-1.5989e-02	1.0335e-04	2.9806e-03
15	-1.5624e-02	1.2841e-04	2.9683e-05	-1.0034e-05	1.6446e-05	-1.2895e-05
16	2.5170e-04	-1.1107e-03	-4.2119e-02	-2.1997e-05	7.8796e-05	8.7220e-05
17	4.4453e-04	-6.4770e-05	5.9585e-05	6.1713e-02	1.3784e-05	2.9817e-02
18	-8.2631e-04	3.8262e-02	-9.4964e-04	1.1345e-04	5.2101e-05	-8.7190e-05
19	1.3093e-01	1.1116e-03	-1.5059e-03	8.1324e-05	-2.1188e-04	-6.0247e-05
20	-1.4538e-03	-4.0643e-03	-1.6603e-01	-1.6603e-04	-4.6522e-02	-6.0995e-05
21	1.5711e-01	2.0664e-03	-5.9986e-04	-6.7880e-04	1.0544e-04	-1.4354e-04
22	8.3753e-04	1.3194e-04	1.6533e-05	1.0333e-01	4.7796e-05	3.0525e-02
23	2.2479e-04	-1.3635e-01	3.0111e-03	6.8143e-05	-2.5040e-04	4.4120e-04
24	-1.4830e-04	4.5771e-02	-1.0113e-03	1.0643e-03	1.3633e-04	7.0667e-04
25	4.8891e-04	-4.4882e-04	2.3328e-04	1.4441e-01	-2.2865e-05	9.9803e-02
26	5.6342e-02	-2.3605e-04	9.5652e-05	-1.3037e-03	-1.7111e-05	-6.6114e-04
27	1.3575e-05	-5.9624e-05	1.5290e-04	1.8763e-02	2.7345e-05	9.5215e-02
28	1.7394e-04	8.4568e-05	7.5175e-03	-2.2545e-05	-6.1444e-02	1.7067e-04
29	4.4657e-05	1.9902e-03	8.9771e-02	7.3153e-05	5.8387e-02	1.5221e-04
30	4.0552e-05	3.0080e-03	1.3624e-01	2.2586e-04	5.2721e-02	1.5334e-04
31	1.3801e-04	-1.3506e-04	4.9459e-05	8.7673e-02	-1.5390e-04	2.5079e-02
32	4.9417e-02	2.9733e-04	-1.1404e-04	8.7970e-05	1.2052e-04	-1.4731e-04
33	-1.6690e-04	1.6894e-05	1.2940e-04	1.8915e-02	-1.0253e-04	-2.8220e-02
34	-2.4901e-04	-1.3275e-01	2.8817e-03	1.3131e-04	2.1390e-05	2.0323e-04
35	9.7211e-05	5.5615e-04	2.2641e-02	1.2153e-04	2.1365e-02	-4.2812e-05
36	-2.1897e-01	-4.5617e-07	5.3984e-04	1.1336e-04	6.7367e-05	-2.2658e-05
37	-6.9165e-04	1.1337e-03	-3.8021e-04	2.0970e-03	1.0749e-01	1.4177e-03
38	1.2433e-01	-9.3952e-03	-1.0774e-03	-5.0986e-04	4.5969e-04	-5.7446e-04
39	-3.5687e-04	1.6127e-04	2.6260e-04	-1.6932e-01	1.2195e-03	-1.2844e-01
40	-4.6988e-03	-1.6596e-01	3.6829e-03	4.5348e-05	3.2449e-04	1.3850e-04
41	1.6793e-03	-1.2261e-01	2.0707e-03	3.9481e-02	-2.4999e-04	1.7849e-02
42	2.2946e-04	-1.3955e-02	2.6950e-04	-3.4260e-01	1.4399e-04	-1.5338e-01
43	3.8131e-01	1.0915e-03	2.4537e-05	6.2393e-04	5.6242e-04	3.9012e-04
44	-1.4960e-03	-1.8269e-02	-8.1827e-01	-7.5334e-04	-1.3621e-01	-3.0930e-04
45	5.9110e-01	3.1437e-03	-1.3399e-03	-9.3462e-04	7.9109e-04	1.5710e-04
46	-7.2249e-04	1.3788e-03	2.5423e-03	-8.6377e-01	1.4984e-03	2.1004e-01
47	7.7331e-05	-7.1974e-03	-3.4395e-01	-3.5217e-03	-3.8144e-01	1.2360e-03
48	1.0868e-03	-8.1943e-01	1.8895e-02	-1.2205e-03	-7.0659e-04	4.5653e-04
49	5.1721e-01	-3.7272e-03	-8.2783e-04	-7.9136e-04	2.0936e-04	-1.2063e-03
50	-3.7272e-03	-4.8583e-01	1.0591e-02	-5.8206e-03	-1.6721e-04	-6.8664e-03
51	-8.2783e-04	1.0591e-02	-2.2706e-04	-2.3907e-01	-4.9768e-04	-2.7758e-01
52	-7.9136e-04	-5.8206e-03	-2.3907e-01	-1.0688e-03	2.2934e-02	-2.0624e-04
53	-2.0936e-04	1.6721e-04	4.9768e-04	-2.2934e-02	-7.5077e-05	-8.9693e-01
54	1.2063e-03	6.8664e-03	2.7758e-01	2.0624e-04	-8.9693e-01	1.0092e-04
55	2.5148e-01	-2.2091e-03	-3.2172e-04	-4.1954e-04	2.3036e-04	-5.3211e-05
56	-1.0412e-01	1.4128e-03	-3.1342e-04	-1.9446e-05	1.7364e-04	-4.6576e-04
57	2.6960e-04	5.0482e-02	-9.6980e-04	-1.0749e-04	3.2832e-05	9.4237e-05
58	1.8707e-01	-2.3402e-03	-3.6823e-04	-2.3584e-04	2.4997e-04	6.9791e-04

59	1.0810e-04	3.2958e-03	1.3333e-01	-1.8020e-03	-6.6956e-02	3.9638e-03
60	1.0879e-03	-2.0322e-04	5.7717e-03	4.5112e-02	-2.9801e-03	-1.0050e-01
61	1.1043e-01	-3.6045e-04	-7.2537e-04	-2.5972e-04	2.9703e-04	2.2585e-04
62	-2.6189e-02	-6.2151e-04	-8.0592e-05	-2.5171e-04	1.3475e-04	-1.6992e-04
63	-3.9494e-02	-8.4491e-05	2.8620e-06	5.3722e-05	-5.5077e-05	-7.4400e-06
64	-6.7215e-04	5.5152e-05	1.2760e-05	-1.4280e-03	-4.7939e-06	-1.9782e-02
65	8.5736e-03	4.1359e-05	-5.5331e-05	-1.4857e-04	-8.1270e-05	-1.5854e-03
66	-1.5415e-05	-8.7799e-04	-1.7664e-02	-5.3884e-05	-3.6136e-02	-3.2643e-05
67	9.3740e-05	3.4596e-02	-9.8767e-04	-2.3834e-05	-5.0103e-04	-2.8652e-05
68	-5.1983e-05	-7.6441e-05	1.8492e-05	-1.5648e-02	-1.7855e-05	-2.3078e-02
69	9.7095e-03	1.2180e-04	-2.2806e-05	9.9090e-06	9.3354e-06	6.6267e-06
70	2.7025e-05	7.8431e-05	3.7097e-03	-2.5536e-05	3.3782e-03	2.3746e-05
71	3.7370e-04	-1.3042e-02	3.1722e-04	8.3352e-06	-3.4157e-05	2.3290e-05
72	-4.8919e-04	1.7875e-04	7.1117e-03	-3.1098e-04	-4.9625e-03	-5.3857e-03
73	-1.0061e-03	3.7833e-04	1.6426e-02	1.5682e-04	-1.1521e-02	2.3099e-03
74	-2.3749e-02	-1.7748e-04	-8.2615e-04	9.1279e-07	5.6614e-04	1.1931e-05
75	-3.9286e-03	-1.8980e-04	-6.5662e-06	-3.0432e-05	-8.8779e-06	1.1878e-05
76	-5.8284e-03	-1.1881e-05	1.8190e-05	2.1036e-05	-2.0867e-05	-1.8928e-05
77	1.9331e-05	-2.6481e-06	-7.1023e-06	5.2005e-03	-1.6682e-07	-5.7232e-03
78	-3.4023e-05	-6.9042e-05	-3.0460e-03	7.2801e-06	3.7066e-03	4.9936e-06

j\i	55	56	57	58	59	60
1	-7.1895e-05	7.2632e-05	-2.8867e-05	5.7207e-05	-5.3290e-05	1.5079e-04
2	-1.8881e-04	-4.7206e-05	4.4239e-05	7.2744e-06	6.0558e-03	-8.8230e-06
3	-1.9102e-04	1.2268e-04	3.1970e-03	3.4192e-04	5.9132e-05	-3.0619e-05
4	-5.1793e-05	1.6749e-05	1.3776e-02	1.7923e-04	-1.6243e-05	4.4837e-05
5	2.4266e-05	-1.4470e-05	-9.1924e-05	2.1760e-05	1.5971e-04	-5.8638e-03
6	3.3150e-05	-1.3747e-05	7.7907e-05	-8.2073e-07	1.8629e-03	-2.6460e-05
7	-2.6846e-03	-4.9857e-03	-2.0480e-05	5.4011e-03	1.1395e-05	-1.6251e-06
8	-2.5405e-05	-5.2577e-05	-5.7970e-03	5.2397e-05	3.5547e-05	-4.9848e-05
9	4.9431e-05	1.8027e-05	-3.5067e-05	1.6242e-05	3.6192e-04	-8.9495e-03
10	2.5570e-05	-5.8847e-05	2.7046e-05	-2.3589e-05	-4.7200e-03	-1.6028e-04
11	1.3587e-03	1.1562e-02	3.1290e-05	2.7037e-03	-2.1761e-04	1.6342e-04
12	5.1193e-03	1.7899e-02	-1.0464e-05	9.2826e-03	4.5770e-06	-5.6749e-06
13	4.1786e-05	-1.7373e-05	1.9860e-05	4.7605e-06	-1.9218e-05	1.8501e-03
14	3.0511e-05	8.3552e-05	1.7970e-05	-4.6266e-05	-3.7696e-03	-1.6931e-04
15	1.1143e-02	-4.8934e-03	9.5980e-06	-5.2587e-03	-4.4235e-05	-5.0593e-05
16	-7.2089e-05	-5.6723e-05	1.1009e-05	-4.8087e-05	-1.3372e-03	3.1429e-02
17	-1.0265e-04	-1.3969e-04	-4.0373e-05	5.4514e-05	5.4565e-03	1.9406e-04
18	-2.0798e-04	3.9506e-04	-2.3785e-03	8.7440e-05	2.3382e-05	4.3383e-06
19	2.0166e-02	-3.2009e-02	3.4445e-05	-9.3653e-03	1.3769e-04	2.2800e-04
20	-3.4506e-04	2.7579e-04	-2.7220e-05	-9.0561e-05	-1.8636e-03	4.4266e-02
21	2.6811e-02	-6.4653e-02	2.0654e-04	-2.2248e-02	9.0884e-05	1.3022e-04
22	6.0966e-05	-2.5235e-04	-7.3503e-05	-1.3345e-04	-2.7141e-02	-1.1619e-03
23	6.5774e-04	-2.2706e-04	-3.5208e-02	-6.7151e-04	-9.3313e-05	-1.3998e-04
24	-1.6901e-04	6.2161e-06	1.3645e-02	1.7084e-04	-2.6995e-04	-1.3751e-04
25	-2.2496e-04	-1.8483e-04	-3.5726e-05	7.6053e-06	-6.3955e-02	-2.5961e-03

26	-2.4297e-02	-1.9985e-02	-1.5522e-04	4.7979e-03	6.4333e-04	1.6998e-04
27	1.5291e-04	4.5498e-05	-7.7413e-05	-4.9220e-05	1.0729e-02	3.1654e-04
28	1.0037e-04	-1.0573e-05	2.3677e-05	-6.4839e-05	-7.1340e-04	1.5328e-02
29	1.6494e-04	-2.2092e-05	9.2250e-05	9.4930e-05	1.2720e-03	-3.1896e-02
30	1.3825e-05	1.6805e-04	1.1812e-04	1.9300e-04	2.2100e-03	-5.6823e-02
31	1.8112e-04	9.0981e-05	-2.0424e-06	-5.4439e-05	-3.6142e-02	-1.4101e-03
32	-7.3596e-03	-3.3692e-03	9.8948e-06	1.3889e-02	-1.0924e-04	4.7230e-05
33	5.9335e-05	-4.4198e-05	1.6227e-05	-1.2779e-04	-2.6556e-02	-1.2975e-03
34	4.5663e-04	-1.3140e-05	-6.2376e-02	-5.2235e-04	4.7558e-05	-8.3283e-05
35	7.1144e-05	-4.6176e-05	-3.7813e-05	-8.3525e-05	-1.2661e-03	2.6827e-02
36	-2.0694e-02	8.6029e-02	-3.0618e-04	3.0851e-02	4.7866e-05	-1.4186e-04
37	-5.8122e-05	-5.3833e-04	2.8397e-04	-7.7519e-05	2.2731e-03	-4.4580e-02
38	3.8926e-02	1.2809e-01	-8.5070e-04	4.7436e-02	-2.1511e-04	1.2705e-04
39	-1.2813e-04	-7.8925e-04	-1.1448e-05	-2.6576e-04	-3.9461e-02	-2.1423e-03
40	-6.7930e-04	-4.6427e-03	-4.2182e-02	-2.6452e-03	2.2766e-05	-2.2178e-04
41	3.6851e-04	8.5888e-04	-7.1810e-02	2.6093e-04	-6.9103e-03	-2.1561e-04
42	-3.9996e-04	1.8791e-04	-8.2481e-03	2.4710e-04	5.8923e-02	2.5233e-03
43	-1.0755e-01	4.6011e-02	2.1007e-04	4.3706e-02	1.4912e-04	5.1551e-04
44	-3.1729e-04	-2.8000e-04	-1.8865e-04	-6.1208e-04	-4.9244e-03	1.2275e-01
45	1.8542e-01	-6.6832e-02	1.2636e-05	-7.8587e-02	2.2883e-04	-2.1679e-04
46	1.1950e-04	6.6470e-06	1.1996e-04	-4.8797e-05	5.6206e-02	2.4191e-03
47	1.4798e-04	-2.3708e-04	3.7823e-05	-1.0018e-04	9.5500e-04	-1.4749e-02
48	2.7240e-03	-1.9986e-03	6.0754e-03	-3.1416e-03	-8.0060e-05	1.3889e-05
49	2.5148e-01	-1.0412e-01	-2.6960e-04	-1.8707e-01	-1.0810e-04	-1.0879e-03
50	-2.2091e-03	1.4128e-03	-5.0482e-02	2.3402e-03	-3.2958e-03	2.0322e-04
51	-3.2172e-04	-3.1342e-04	9.6980e-04	3.6823e-04	-1.3333e-01	-5.7717e-03
52	-4.1954e-04	-1.9446e-05	1.0749e-04	2.3584e-04	1.8020e-03	-4.5112e-02
53	-2.3036e-04	-1.7364e-04	3.2832e-05	2.4997e-04	-6.6956e-02	-2.9801e-03
54	5.3211e-05	4.6576e-04	9.4237e-05	6.9791e-04	3.9638e-03	-1.0050e-01
55	-6.7539e-01	5.9957e-01	1.4262e-03	-1.6655e-01	-3.9559e-04	3.1548e-04
56	5.9957e-01	7.5658e-01	-3.4081e-04	-9.4458e-02	2.7340e-04	-5.9590e-04
57	-1.4262e-03	3.4081e-04	-9.9163e-01	-1.7738e-03	-6.0328e-04	-7.2314e-04
58	1.6655e-01	9.4458e-02	-1.7738e-03	7.6462e-01	-3.8545e-03	3.8778e-03
59	3.9559e-04	-2.7340e-04	-6.0328e-04	-3.8545e-03	-8.1209e-02	9.7680e-01
60	-3.1548e-04	5.9590e-04	-7.2314e-04	3.8778e-03	9.7680e-01	8.1115e-02
61	-1.2117e-01	6.3054e-02	-1.3846e-04	2.6864e-01	-4.0558e-03	-3.0009e-03
62	-1.5753e-01	8.6934e-02	-3.5433e-04	5.0175e-01	-1.2835e-04	2.3661e-03
63	6.1950e-02	-1.4676e-02	4.9471e-05	-8.5051e-02	2.9025e-05	-4.4247e-04
64	-8.7476e-04	2.9224e-04	-2.9485e-05	5.2205e-04	-3.0775e-03	-1.4067e-04
65	1.0912e-02	-3.8861e-03	-2.7010e-06	-6.2452e-03	-2.5106e-04	-6.2933e-05
66	-3.4964e-05	1.0676e-05	4.2144e-05	2.9575e-05	7.9725e-05	-1.4362e-03
67	-6.0607e-05	2.4592e-05	-4.4043e-03	4.1913e-05	-5.4315e-05	-5.4452e-05
68	-1.7008e-05	1.8597e-05	-3.1863e-05	-6.4730e-06	-8.1601e-03	-3.5729e-04
69	4.7988e-04	-3.6999e-03	-1.6583e-05	3.2867e-03	-2.1454e-06	-8.0775e-06
70	-1.1766e-05	-1.8838e-05	-2.8292e-07	-2.4334e-06	2.1548e-05	-3.8033e-04
71	-6.3553e-05	-2.4503e-05	-3.8692e-02	1.5813e-05	-3.3205e-05	1.6951e-05
72	1.4732e-04	4.7888e-06	-5.9061e-05	-2.0462e-04	3.5318e-02	1.6854e-02

73	3.1324e-04	-1.0422e-05	2.6871e-05	-4.9466e-04	-1.6942e-02	3.4943e-02
74	6.4097e-03	2.2384e-04	-5.7044e-04	-7.8941e-03	3.0396e-05	-1.8083e-03
75	-3.7588e-03	3.6565e-03	-3.4847e-05	5.0412e-03	1.0888e-07	6.9878e-06
76	6.1168e-03	2.1282e-03	2.0976e-06	-1.0182e-02	-1.0437e-06	-4.5187e-05
77	-9.5260e-06	8.0805e-05	-2.6342e-06	-1.0971e-04	-1.2723e-03	-5.4338e-05
78	-8.7813e-05	-6.4672e-05	2.0279e-06	-5.6886e-05	1.5832e-05	-3.9903e-04

j\i	61	62	63	64	65	66
1	1.7161e-05	1.3355e-04	-1.5651e-05	1.0432e-03	-9.1110e-05	5.2595e-05
2	-3.8032e-05	-3.2618e-04	-3.7746e-05	-9.1159e-05	1.5058e-05	-4.5342e-04
3	-5.0322e-05	-2.4882e-04	1.4289e-05	2.7364e-05	-1.2869e-05	1.5421e-04
4	-6.1517e-05	-1.8846e-04	2.3514e-05	-2.2147e-05	1.5386e-05	-1.4952e-04
5	-1.0357e-04	-1.3595e-06	-1.4732e-05	-6.7795e-03	5.5550e-04	-2.2029e-04
6	9.0338e-05	2.1372e-05	-1.5586e-06	-1.3789e-04	5.1543e-05	1.3243e-02
7	-4.3550e-03	-3.2151e-03	-4.7460e-03	1.5053e-04	1.9051e-03	4.1164e-05
8	-7.9841e-05	-3.3857e-06	-1.2413e-04	-4.4626e-05	1.8272e-06	-1.0305e-04
9	-1.4017e-04	5.8382e-05	-2.5465e-06	-7.2787e-03	6.0666e-04	5.0502e-05
10	1.2866e-04	-5.5549e-07	8.5186e-05	3.7316e-06	7.9378e-05	1.5607e-02
11	4.2985e-03	-1.1346e-03	-1.8113e-02	-9.1672e-04	-1.1648e-02	7.6263e-05
12	1.2358e-02	3.7504e-02	2.7163e-03	-5.5079e-04	-6.9478e-03	1.0148e-05
13	-3.4655e-05	-2.4286e-05	8.2197e-06	-1.8815e-04	4.6519e-06	-1.0975e-05
14	-3.2482e-06	3.9996e-05	1.7720e-04	-1.7878e-05	-6.6292e-07	-3.6604e-04
15	5.9560e-03	-9.5087e-03	2.7725e-03	-1.4637e-04	-1.8647e-03	-4.1939e-06
16	-2.3890e-06	2.9913e-05	-1.4269e-04	1.0056e-02	-7.9559e-04	-7.7048e-06
17	-2.0709e-04	6.3244e-05	-2.1574e-04	2.0290e-06	1.8832e-05	-9.6388e-03
18	2.6320e-04	-3.9268e-04	4.4184e-04	5.4350e-06	-7.6104e-05	8.2034e-05
19	-4.5076e-02	6.0418e-02	-3.7689e-02	1.1878e-03	1.5234e-02	3.8961e-05
20	5.2095e-04	-5.9836e-04	4.3126e-04	4.8161e-03	-5.1525e-04	-1.5269e-05
21	-4.3243e-02	3.2460e-02	-8.0361e-02	-1.7612e-05	8.0884e-05	5.7030e-06
22	-2.0816e-04	1.9606e-04	-3.8473e-04	2.3236e-06	-4.4442e-06	5.8489e-03
23	-4.6868e-05	7.1300e-04	-5.2471e-05	3.2242e-06	3.3071e-05	2.3181e-04
24	-2.0625e-04	-2.6822e-04	-5.4940e-05	3.0182e-05	-2.9865e-05	6.6148e-04
25	-2.5109e-04	1.8500e-04	-4.3390e-04	-4.5031e-05	9.6777e-05	2.5081e-02
26	-3.5861e-02	2.0359e-02	-5.6650e-02	3.1616e-04	4.2710e-03	-2.2859e-04
27	-1.1004e-04	2.0563e-04	5.6747e-05	3.8655e-05	-5.4707e-05	-2.3068e-02
28	2.0327e-04	9.2660e-05	9.1150e-05	1.2980e-02	-1.0570e-03	-4.3345e-05
29	-5.1941e-05	2.9137e-04	3.7022e-05	2.9568e-03	-2.3124e-04	1.2178e-05
30	-2.8535e-05	-3.3056e-05	2.9701e-05	5.5706e-03	-4.6431e-04	-3.8889e-06
31	6.3180e-05	1.4810e-04	1.0600e-04	-1.4803e-05	2.6073e-05	9.0554e-03
32	-6.3847e-03	-1.1261e-02	-4.0186e-03	-2.8189e-04	-3.4501e-03	-5.9139e-05
33	-8.6204e-05	5.7926e-05	4.1321e-05	5.6340e-05	-5.7933e-05	-2.8755e-02
34	8.4662e-05	5.9523e-04	1.2395e-04	-5.8603e-06	1.1283e-05	2.7843e-05
35	2.7733e-04	9.2609e-06	-6.1755e-06	1.1189e-02	-8.8958e-04	9.0130e-06
36	2.9703e-02	-1.0720e-02	3.3656e-02	1.0154e-03	1.2972e-02	-1.8091e-05
37	-3.2117e-04	-8.1078e-04	-6.2248e-04	-1.6553e-02	1.3255e-03	-3.4555e-06
38	1.5963e-02	2.1002e-01	1.5800e-01	-3.7353e-04	-4.4065e-03	5.6025e-06
39	1.1757e-05	-1.0334e-03	-7.7615e-04	-2.0560e-04	3.5674e-05	3.1478e-03

40	-3.9110e-04	-6.4993e-03	-5.3878e-03	-5.9340e-05	7.3691e-05	4.5615e-04
41	-1.0111e-04	1.6286e-03	6.6150e-04	1.1809e-05	-8.8236e-05	2.8220e-03
42	1.6177e-04	1.7810e-05	5.8609e-05	1.1254e-04	-7.9928e-05	-2.1748e-02
43	-6.2981e-02	6.1462e-02	-2.3044e-02	-4.6526e-05	-3.2849e-04	3.0194e-05
44	-2.4509e-05	-2.1218e-04	-1.0274e-04	1.4802e-02	-1.1939e-03	-3.1956e-05
45	-5.2592e-02	2.0589e-01	-1.4919e-02	1.6731e-03	2.1074e-02	-3.6221e-05
46	6.9597e-05	-6.2534e-05	5.1765e-05	1.3447e-05	-3.2696e-05	-6.4140e-03
47	-2.5099e-05	5.6243e-05	-7.4089e-06	-2.8963e-03	2.2165e-04	-5.0187e-05
48	2.2148e-05	1.3770e-03	-7.8409e-04	1.2216e-05	1.5529e-04	2.4023e-04
49	1.1043e-01	-2.6189e-02	3.9494e-02	-6.7215e-04	-8.5736e-03	1.5415e-05
50	-3.6045e-04	-6.2151e-04	8.4491e-05	5.5152e-05	-4.1359e-05	8.7799e-04
51	-7.2537e-04	-8.0592e-05	-2.8620e-06	1.2760e-05	5.5331e-05	1.7664e-02
52	-2.5972e-04	-2.5171e-04	-5.3722e-05	-1.4280e-03	1.4857e-04	5.3884e-05
53	-2.9703e-04	-1.3475e-04	-5.5077e-05	4.7939e-06	-8.1270e-05	-3.6136e-02
54	-2.2585e-04	1.6992e-04	-7.4400e-06	1.9782e-02	-1.5854e-03	-3.2643e-05
55	-1.2117e-01	-1.5753e-01	-6.1950e-02	-8.7476e-04	-1.0912e-02	3.4964e-05
56	6.3054e-02	8.6934e-02	1.4676e-02	2.9224e-04	3.8861e-03	-1.0676e-05
57	1.3846e-04	3.5433e-04	4.9471e-05	2.9485e-05	-2.7010e-06	4.2144e-05
58	-2.6864e-01	-5.0175e-01	-8.5051e-02	-5.2205e-04	-6.2452e-03	2.9575e-05
59	4.0558e-03	1.2835e-04	2.9025e-05	3.0775e-03	-2.5106e-04	7.9725e-05
60	3.0009e-03	-2.3661e-03	-4.4247e-04	1.4067e-04	-6.2933e-05	-1.4362e-03
61	9.3513e-01	-8.2487e-02	-2.9736e-02	-1.9063e-04	-2.3613e-03	-1.7086e-05
62	-8.2487e-02	7.8024e-01	-4.4114e-02	-9.3363e-04	-1.1527e-02	2.7554e-05
63	2.9736e-02	4.4114e-02	-9.3598e-01	-8.9350e-03	-1.0947e-01	4.0677e-04
64	-1.9063e-04	-9.3363e-04	8.9350e-03	1.1544e-03	3.0193e-02	6.0112e-01
65	2.3613e-03	1.1527e-02	-1.0947e-01	-3.0193e-02	-3.6972e-01	4.9280e-02
66	1.7086e-05	-2.7554e-05	4.0677e-04	-6.0112e-01	4.9280e-02	2.9862e-04
67	-2.5010e-05	-5.9224e-06	-3.5293e-04	-7.8776e-03	1.5002e-03	1.4671e-02
68	-1.6255e-05	-3.2451e-06	-1.6472e-05	9.6248e-05	2.5046e-03	7.2634e-01
69	2.3051e-03	-1.0860e-02	1.7430e-01	-6.9195e-02	-8.9653e-01	2.1697e-03
70	-8.4088e-07	-2.2731e-05	5.6775e-04	-7.8131e-01	5.8883e-02	-1.4739e-03
71	6.2181e-04	5.5529e-06	5.3792e-04	-5.6168e-04	3.2141e-03	-6.1331e-03
72	-6.9144e-04	1.2983e-04	-1.7386e-03	-5.7146e-02	1.4061e-03	2.9551e-01
73	-1.5751e-03	2.6256e-04	-3.8597e-03	-1.3245e-01	1.9049e-03	-1.2767e-01
74	-3.7683e-02	6.0963e-03	-8.4798e-02	-8.0848e-03	-1.9107e-01	-7.6593e-04
75	5.7896e-03	8.6733e-04	4.9844e-02	-4.2169e-03	-5.1904e-02	3.4747e-04
76	1.9328e-03	-1.2985e-02	-1.3329e-01	4.3513e-04	6.7674e-03	3.9679e-05
77	3.6858e-06	-2.7030e-05	-2.9387e-05	1.2394e-06	3.2410e-06	-6.2987e-04
78	1.2801e-05	6.6243e-05	6.8545e-05	2.5605e-03	-2.1891e-04	4.5431e-06

j\i	67	68	69	70	71	72
1	5.7764e-06	1.6730e-03	-3.0848e-06	-4.9293e-05	4.9053e-06	2.4468e-03
2	-2.4790e-05	-1.1447e-04	1.0149e-05	-1.2654e-03	-4.4073e-06	-4.8681e-04
3	1.0663e-02	-2.7314e-06	-1.3498e-05	-6.7304e-06	-1.6840e-03	7.1522e-06
4	-1.0490e-02	3.6221e-06	2.5609e-05	-1.1252e-06	2.2755e-03	-8.0496e-06
5	1.1274e-05	-1.2730e-02	5.5485e-06	5.6006e-05	-1.7097e-05	2.0258e-03
6	-1.9071e-04	-2.2901e-04	9.7363e-06	-2.7934e-03	-2.6393e-05	1.8294e-03

7	1.7059e-05	-1.2367e-06	1.3577e-03	-1.6143e-05	-1.3250e-04	-1.4443e-04
8	3.1993e-03	-9.0441e-05	3.0327e-05	5.5932e-05	-6.6244e-03	-4.9126e-05
9	-5.2724e-05	-1.6179e-02	-4.2780e-06	-1.1917e-05	3.2414e-05	-2.0406e-03
10	-2.0529e-04	5.3883e-05	1.9277e-05	-4.3310e-03	-9.7977e-05	3.7494e-03
11	-5.4621e-05	-2.4085e-05	-6.4984e-03	-2.3587e-05	-3.8419e-05	-4.3854e-05
12	-9.2302e-06	-2.1557e-05	-5.1255e-03	-1.2157e-05	-7.9200e-06	-6.1628e-06
13	-1.3458e-05	6.5189e-04	-3.0455e-07	-2.1759e-05	2.5993e-06	-1.3566e-03
14	-7.6962e-08	-6.9915e-07	-3.0144e-05	-9.1380e-04	-7.1891e-06	-1.8173e-04
15	-5.0294e-06	-8.8624e-06	2.3254e-04	2.0429e-06	-8.8663e-05	-1.2289e-04
16	3.0010e-05	1.6474e-02	3.4635e-05	7.0267e-06	-2.8648e-06	-6.2649e-03
17	1.4226e-04	7.1631e-06	5.9715e-05	2.5080e-03	7.2537e-06	-4.6174e-04
18	6.2951e-03	-8.7501e-06	-1.3187e-04	3.6409e-06	-4.6513e-03	3.2288e-06
19	6.0695e-05	9.0449e-05	1.9331e-02	1.3589e-05	-1.1680e-04	-7.1620e-05
20	3.6600e-05	9.8689e-03	-1.8323e-04	-1.6639e-05	1.3986e-05	1.7458e-03
21	-4.5547e-05	2.9572e-05	1.7228e-02	1.6572e-05	-1.9382e-04	-2.4411e-04
22	-8.3080e-05	-3.8758e-06	6.2258e-05	2.3002e-03	1.7216e-05	-3.9308e-04
23	1.5148e-02	-5.8480e-05	-4.2474e-06	1.9717e-05	-8.2641e-03	1.4274e-05
24	3.4459e-02	-1.1464e-04	-4.5995e-05	2.6429e-05	-5.4635e-03	1.3850e-05
25	-6.3058e-04	1.1465e-05	4.4389e-05	2.2181e-03	1.7913e-05	5.6693e-04
26	4.5637e-05	1.2161e-05	7.0328e-03	-2.6067e-06	1.0195e-04	1.6919e-04
27	3.3182e-04	-3.6646e-05	-5.4468e-06	7.7971e-03	3.0671e-05	-2.8975e-03
28	7.7355e-05	2.6794e-02	-1.2195e-05	-7.1364e-06	-7.5190e-07	-2.4138e-03
29	-1.2823e-05	4.4967e-04	4.3340e-06	4.7115e-07	-1.3792e-05	-8.8797e-03
30	-2.0112e-06	1.0180e-02	-2.0558e-06	-1.1214e-05	-2.6188e-05	-1.5384e-02
31	-1.3639e-04	8.2520e-06	-1.6110e-05	-3.4778e-04	-1.8623e-05	1.9883e-03
32	6.6618e-06	-1.1012e-05	7.0534e-03	1.0836e-05	-1.2877e-04	-1.1823e-04
33	4.2656e-04	1.7819e-05	-1.7506e-05	9.5265e-04	-9.8588e-06	4.2108e-03
34	2.0965e-03	-1.8330e-05	1.2618e-05	-3.9043e-07	1.4669e-02	-4.0521e-06
35	6.9003e-07	8.6804e-03	1.5535e-05	3.7261e-05	2.6268e-05	4.4745e-03
36	7.0373e-05	-8.1028e-06	5.6655e-03	2.1469e-05	5.3524e-05	-1.7626e-05
37	-2.3376e-04	-2.1158e-02	7.3570e-05	8.0307e-06	-1.7170e-04	-1.6967e-02
38	8.5204e-04	-1.4898e-04	-2.2664e-02	-1.7701e-05	1.1851e-03	1.5939e-04
39	-3.3938e-05	-2.0438e-04	1.1447e-04	3.3036e-03	-8.0992e-06	1.1437e-02
40	3.0060e-02	-1.8399e-04	6.5709e-04	-7.9139e-06	2.7924e-02	-1.4189e-04
41	2.0715e-02	-2.4199e-05	-7.8226e-05	-8.7706e-05	-2.3125e-02	-5.8285e-04
42	2.7128e-03	-7.1528e-05	-6.5564e-06	8.0498e-04	-2.7122e-03	4.9489e-03
43	-2.3633e-05	-9.6863e-06	1.3734e-02	3.9745e-05	5.4374e-04	6.3620e-04
44	2.9812e-05	1.9163e-02	1.3186e-05	7.0450e-06	-4.7140e-05	-2.8871e-02
45	2.5780e-05	3.7162e-05	1.2407e-02	2.8353e-05	-7.7203e-05	-1.2262e-04
46	5.8857e-05	-2.8520e-05	-6.2669e-06	1.0933e-02	8.1351e-06	-3.2428e-03
47	3.9244e-05	1.1588e-02	2.2713e-05	1.5103e-04	-2.9914e-06	8.5939e-03
48	1.5426e-02	-4.6465e-05	2.7141e-04	2.5794e-05	6.9520e-03	-8.2485e-06
49	9.3740e-05	-5.1983e-05	-9.7095e-03	-2.7025e-05	3.7370e-04	4.8919e-04
50	3.4596e-02	-7.6441e-05	-1.2180e-04	-7.8431e-05	-1.3042e-02	-1.7875e-04
51	-9.8767e-04	1.8492e-05	2.2806e-05	-3.7097e-03	3.1722e-04	-7.1117e-03
52	-2.3834e-05	-1.5648e-02	-9.9090e-06	2.5536e-05	8.3352e-06	3.1098e-04
53	5.0103e-04	1.7855e-05	9.3354e-06	3.3782e-03	3.4157e-05	-4.9625e-03

54	2.8652e-05	2.3078e-02	6.6267e-06	2.3746e-05	-2.3290e-05	-5.3857e-03
55	-6.0607e-05	-1.7008e-05	-4.7988e-04	1.1766e-05	-6.3553e-05	-1.4732e-04
56	2.4592e-05	1.8597e-05	3.6999e-03	1.8838e-05	-2.4503e-05	-4.7888e-06
57	4.4043e-03	3.1863e-05	-1.6583e-05	-2.8292e-07	3.8692e-02	-5.9061e-05
58	-4.1913e-05	6.4730e-06	3.2867e-03	-2.4334e-06	-1.5813e-05	-2.0462e-04
59	5.4315e-05	8.1601e-03	-2.1454e-06	2.1548e-05	3.3205e-05	3.5318e-02
60	5.4452e-05	3.5729e-04	-8.0775e-06	-3.8033e-04	-1.6951e-05	1.6854e-02
61	-2.5010e-05	-1.6255e-05	-2.3051e-03	8.4088e-07	6.2181e-04	6.9144e-04
62	-5.9224e-06	-3.2451e-06	1.0860e-02	2.2731e-05	5.5529e-06	-1.2983e-04
63	3.5293e-04	1.6472e-05	1.7430e-01	5.6775e-04	-5.3792e-04	-1.7386e-03
64	-7.8776e-03	9.6248e-05	6.9195e-02	7.8131e-01	-5.6168e-04	5.7146e-02
65	-1.5002e-03	-2.5046e-03	-8.9653e-01	5.8883e-02	-3.2141e-03	1.4061e-03
66	-1.4671e-02	-7.2634e-01	2.1697e-03	-1.4739e-03	6.1331e-03	2.9551e-01
67	9.3677e-01	-1.3205e-02	-1.2678e-03	-2.3047e-03	-3.4271e-01	4.5646e-03
68	-1.3205e-02	1.5097e-03	2.2613e-03	-6.1659e-01	-1.8483e-04	1.1703e-01
69	1.2678e-03	-2.2613e-03	3.6750e-01	4.2826e-05	-2.0403e-03	-2.0066e-03
70	2.3047e-03	6.1659e-01	4.2826e-05	-5.7049e-05	-3.0369e-04	-6.8838e-02
71	-3.4271e-01	-1.8483e-04	2.0403e-03	3.0369e-04	-9.3758e-01	1.4132e-04
72	-4.5646e-03	-1.1703e-01	-2.0066e-03	-6.8838e-02	-1.4132e-04	-6.8366e-01
73	7.1984e-04	-2.7329e-01	-4.5640e-03	2.9722e-02	3.2586e-04	-6.4507e-01
74	-6.1804e-03	1.3640e-02	-1.0119e-01	2.3742e-04	1.8288e-04	6.3028e-02
75	-1.5731e-05	-4.1172e-05	1.0736e-01	2.1437e-04	-4.4014e-03	-4.1093e-03
76	-1.0554e-04	8.3568e-05	4.7266e-02	4.4391e-05	-7.2758e-04	-7.6513e-04
77	8.0124e-06	-2.2514e-06	3.6158e-05	-2.6131e-03	-1.3572e-06	-4.1695e-04
78	-3.6822e-06	-8.2514e-04	-2.1581e-05	-9.5812e-07	-1.2318e-06	9.1337e-04

j\i	73	74	75	76	77	78
1	1.1425e-03	4.5328e-06	1.8834e-05	7.8286e-06	-8.5717e-04	-2.9764e-04
2	9.7759e-04	-6.2502e-05	-2.7336e-05	-4.3756e-06	-2.1703e-04	-6.4410e-04
3	-8.8022e-06	-1.9534e-05	-2.4552e-05	4.7077e-05	-2.8379e-05	-5.8094e-06
4	8.0841e-06	5.4607e-05	-7.3620e-05	4.2087e-05	-3.0143e-05	2.7796e-06
5	9.5753e-04	1.1851e-05	-1.9731e-05	1.6568e-05	2.8414e-03	-9.4924e-05
6	-4.1688e-03	1.9904e-04	3.3502e-06	2.2914e-05	5.6380e-05	3.1380e-03
7	3.0152e-04	7.1296e-03	-8.7258e-04	-1.0892e-03	-1.7712e-06	-1.3391e-06
8	6.2956e-05	-1.1087e-04	-6.5692e-06	2.7037e-06	-3.4141e-05	4.0415e-05
9	-9.0486e-04	-6.5565e-06	2.9499e-05	-2.7899e-05	-4.5589e-03	-3.1213e-05
10	-8.7001e-03	4.2339e-04	-5.2158e-05	-3.5553e-05	2.0026e-05	-4.7561e-03
11	1.2314e-04	3.4544e-03	8.1354e-03	1.3096e-04	9.0716e-07	-1.5561e-05
12	3.0832e-05	6.2751e-04	3.0317e-03	1.2218e-03	-2.5996e-06	3.2845e-06
13	-5.8724e-04	6.9992e-07	1.9063e-07	4.3971e-07	2.0843e-04	-1.0255e-05
14	4.3159e-04	-3.3779e-05	2.8493e-05	1.8181e-05	2.6543e-05	4.4388e-05
15	2.7400e-04	5.9740e-03	3.4391e-03	4.4177e-04	-1.0244e-06	-2.7676e-06
16	-2.6926e-03	-7.9077e-06	-3.7531e-05	-2.4945e-05	-8.5650e-04	-1.1972e-05
17	1.0606e-03	-3.5417e-05	-9.4024e-05	-3.7517e-05	-4.6443e-05	-1.2643e-03
18	-8.4634e-06	-1.0668e-04	1.0457e-04	-3.0330e-05	-2.8569e-07	3.2004e-05
19	2.0693e-04	4.4516e-03	-2.3325e-02	-6.7840e-03	2.0204e-05	1.0756e-05
20	7.4945e-04	-4.5418e-05	1.7396e-04	8.2199e-05	3.2838e-03	1.3109e-06

21	5.3949e-04	1.1944e-02	-1.1254e-02	-8.6451e-03	9.5521e-07	-3.3406e-05
22	8.9044e-04	1.0906e-05	-5.4489e-06	-2.2266e-06	-2.4957e-05	4.8230e-03
23	2.0144e-05	-3.3859e-05	-3.0224e-06	2.9893e-06	-6.2794e-06	2.4549e-06
24	-2.2165e-05	-1.0538e-04	6.4239e-05	1.3349e-05	3.9523e-06	-2.5401e-05
25	-1.3341e-03	-1.3554e-05	-1.2407e-04	-4.2441e-05	-5.7683e-05	-2.4535e-03
26	-3.5625e-04	-8.5419e-03	-1.2821e-02	-4.9626e-03	5.9355e-06	1.4552e-05
27	6.7294e-03	-3.2233e-04	-2.7333e-05	-5.8397e-05	3.1735e-05	-1.0439e-02
28	-1.0190e-03	-1.9853e-05	6.3554e-05	-4.8551e-05	-1.1639e-02	1.0615e-05
29	-3.8094e-03	-2.3302e-05	-5.1752e-05	1.4179e-05	6.7903e-03	9.1648e-05
30	-6.6000e-03	-4.0961e-05	-1.3160e-05	4.0508e-05	5.2163e-03	-6.0752e-05
31	-4.5851e-03	2.2502e-04	4.3122e-05	1.3143e-05	7.8117e-05	3.1906e-03
32	2.3986e-04	6.1356e-03	5.4412e-04	-1.6239e-03	5.4360e-06	3.4820e-05
33	-9.7381e-03	4.9339e-04	1.1976e-05	5.7450e-05	-1.7949e-05	8.5842e-03
34	-2.2556e-05	2.1123e-04	1.8582e-05	3.2385e-05	2.5396e-06	6.0739e-06
35	1.9484e-03	6.5733e-06	-1.9072e-05	1.6945e-05	3.7358e-03	-1.1152e-05
36	3.4529e-06	3.6731e-04	-1.7364e-03	1.1927e-03	-6.5080e-06	-4.3711e-06
37	-6.9423e-03	-3.5724e-05	-7.2746e-05	-9.5032e-05	-7.2707e-03	7.2060e-05
38	-5.6628e-04	-8.9454e-03	2.9081e-02	1.8544e-02	-2.9259e-05	-1.6025e-05
39	-2.6981e-02	1.4323e-03	-1.6592e-04	-1.1809e-04	-7.5242e-05	-6.2836e-03
40	-2.6213e-05	7.0715e-04	-1.0032e-03	-5.9909e-04	-3.7479e-05	7.4355e-06
41	1.3004e-03	-5.0335e-04	1.4847e-04	8.7699e-05	2.2039e-06	1.4446e-04
42	-1.1423e-02	5.1948e-04	1.6332e-05	3.7175e-06	-1.0387e-05	-1.2521e-03
43	-1.2952e-03	-2.9824e-02	-8.4799e-03	-2.4093e-03	-1.7044e-06	5.9316e-06
44	-1.2415e-02	-9.0092e-05	-3.2385e-05	-7.2843e-07	2.1634e-03	-8.9418e-06
45	2.1198e-04	5.2886e-03	-1.2529e-02	-4.5152e-04	-1.8132e-05	-1.1268e-06
46	7.3792e-03	-3.8838e-04	4.6166e-05	4.3311e-05	-1.6835e-05	8.9897e-03
47	3.7134e-03	2.1881e-05	-2.5743e-05	1.2279e-05	4.3345e-03	5.3658e-05
48	-1.7315e-06	1.0563e-04	-2.3126e-04	-5.8690e-05	-3.9055e-06	1.1054e-05
49	-1.0061e-03	-2.3749e-02	3.9286e-03	5.8284e-03	-1.9331e-05	-3.4023e-05
50	3.7833e-04	-1.7748e-04	1.8980e-04	1.1881e-05	2.6481e-06	-6.9042e-05
51	1.6426e-02	-8.2615e-04	6.5662e-06	-1.8190e-05	7.1023e-06	-3.0460e-03
52	1.5682e-04	9.1279e-07	3.0432e-05	-2.1036e-05	-5.2005e-03	7.2801e-06
53	1.1521e-02	-5.6614e-04	-8.8779e-06	-2.0867e-05	-1.6682e-07	-3.7066e-03
54	-2.3099e-03	-1.1931e-05	1.1878e-05	-1.8928e-05	-5.7232e-03	-4.9936e-06
55	3.1324e-04	6.4097e-03	3.7588e-03	-6.1168e-03	9.5260e-06	-8.7813e-05
56	-1.0422e-05	2.2384e-04	-3.6565e-03	-2.1282e-03	-8.0805e-05	-6.4672e-05
57	-2.6871e-05	5.7044e-04	-3.4847e-05	2.0976e-06	-2.6342e-06	-2.0279e-06
58	4.9466e-04	7.8941e-03	5.0412e-03	-1.0182e-02	-1.0971e-04	5.6886e-05
59	1.6942e-02	-3.0396e-05	1.0888e-07	-1.0437e-06	-1.2723e-03	-1.5832e-05
60	-3.4943e-02	1.8083e-03	6.9878e-06	-4.5187e-05	-5.4338e-05	3.9903e-04
61	-1.5751e-03	-3.7683e-02	-5.7896e-03	-1.9328e-03	-3.6858e-06	1.2801e-05
62	2.6256e-04	6.0963e-03	-8.6733e-04	1.2985e-02	2.7030e-05	6.6243e-05
63	3.8597e-03	8.4798e-02	4.9844e-02	-1.3329e-01	-2.9387e-05	-6.8545e-05
64	-1.3245e-01	-8.0848e-03	4.2169e-03	-4.3513e-04	-1.2394e-06	2.5605e-03
65	-1.9049e-03	1.9107e-01	-5.1904e-02	6.7674e-03	3.2410e-06	2.1891e-04
66	1.2767e-01	7.6593e-04	3.4747e-04	3.9679e-05	-6.2987e-04	-4.5431e-06
67	7.1984e-04	-6.1804e-03	1.5731e-05	1.0554e-04	-8.0124e-06	-3.6822e-06

68	-2.7329e-01	1.3640e-02	4.1172e-05	-8.3568e-05	2.2514e-06	-8.2514e-04
69	4.5640e-03	1.0119e-01	1.0736e-01	4.7266e-02	3.6158e-05	2.1581e-05
70	-2.9722e-02	-2.3742e-04	2.1437e-04	4.4391e-05	-2.6131e-03	9.5812e-07
71	3.2586e-04	1.8288e-04	4.4014e-03	7.2758e-04	1.3572e-06	-1.2318e-06
72	6.4507e-01	-6.3028e-02	-4.1093e-03	-7.6513e-04	-4.1695e-04	-9.1337e-04
73	-6.8581e-01	-2.5054e-02	-9.0664e-03	-1.7064e-03	-9.6492e-04	3.9058e-04
74	-2.5054e-02	-9.4665e-01	-2.0022e-01	-3.7856e-02	3.3828e-05	-1.6190e-05
75	9.0664e-03	2.0022e-01	-9.1284e-01	-3.2816e-01	-1.3214e-04	-2.1263e-04
76	1.7064e-03	3.7856e-02	-3.2816e-01	9.3272e-01	-2.7089e-04	2.0001e-04
77	9.6492e-04	-3.3828e-05	-1.3214e-04	-2.7089e-04	-1.9917e-06	9.9979e-01
78	3.9058e-04	-1.6190e-05	2.1263e-04	-2.0001e-04	-9.9979e-01	-1.6769e-06

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