Equation assignment sequence for variable C_p

no	var	equ	quations	token
99	9	-	$S_{I,p}$ :: port variable	
98	4	-	${F^{sink}}_{N,I}$ :: port variable	
97	198	-	${K^o}_K$ :: port variable	
96	197	-	${E^a}_K$ :: port variable	
95	122	-	k^B :: port variable	
94	121	-	N^A :: port variable	
93	26	-	$N_{S,K}$ :: port variable	
92	19	-	$A_{N,p,q}$ :: port variable	
91	27	-	$I_{N,A}$ :: port variable	
90	10	-	$S_{I,q}$ :: port variable	
89	3	-	${F^{source}}_{N,I}$ :: port variable	
88	2	-	$F_{N,A}$ :: port variable	
87	25	-	r_{zN} :: port variable	
86	24	-	r_{yN} :: port variable	
85	23	-	r_{xN} :: port variable	
84	1	-	t :: port variable	
83	109	-	S_N :: port variable	
82	108	-	U_N :: port variable	

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no	var	equ	quations	token
81	101	-	$\#$ :: port variable	
80	132	-	λ_S :: port variable	
79	164	171	$\_x := {F^{source}}_{N,I} \overset{N}{\star} x_{N,S}$	
78	166	170	$\_T := {F^{source}}_{N,I} \overset{N}{\star} T_N$	
77	165	168	$x := \left({F^{sink}}_{N,I} \cdot \_x_{I,S}\right) \overset{I}{\star} S_{I,p}$	
76	167	164	$T := \left({F^{sink}}_{N,I} \cdot \_T_I\right) \overset{I}{\star} S_{I,p}$	
75	168	162	$f := {x_{N,S,p}}^{((\lvert N_{S,K} \rvert))}$	
74	139	161	$n^t := \mathbf{reduceSum}\left(n_{N,S}, S\right)$	
73	143	160	$\rho := {(V_N)}^{-1} \,.\, m_N$	
72	199	156	$K := {K^o}_K \,.\, \mathbf{exp}\left((-{E^a}_K) \,.\, {(R \,.\, T_{N,p})}^{-1}\right)$	
71	169	154	$\xi := \prod_S f_{N,S,K,p}$	
70	120	153	$v_z := \frac{\partial r_{zN}}{\partial t}$	
69	119	152	$v_y := \frac{\partial r_{yN}}{\partial t}$	
68	161	151	$\mu^o := \mathbf{Instantiate}(\mu_{N,S}, \#)$	
67	140	149	$x := {(n^t{}_N)}^{-1} \,.\, n_{N,S}$	
66	123	146	$R := N^A \,.\, k^B$	
65	118	145	$v_x := \frac{\partial r_{xN}}{\partial t}$	
64	189	143	$\rho := I_{N,A} \overset{N}{\star} \rho_N$	
63	183	142	$k_x^c := I_{N,A} \overset{N}{\star} \left(\left(\lambda_S \overset{S}{\star} {(\mu_{N,S})}^{-1}\right) \,.\, {(V_N)}^{-1} \,.\, \frac{\partial U_N}{\partial p_N} \,.\, v_{xN}\right)$	
62	157	141	$d := \mathbf{sign}\left(F_{N,A} \overset{N}{\star} p_N\right)$	

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no	var	equ	quations	token
61	104	140	$0.5 := \mathbf{Instantiate}(\#, \#)$	
60	200	135	$\tilde{n} := A_{N,p,q} \overset{p}{\star} \left(N_{S,K} \overset{K}{\star} \left(K_{N,K,p} \,.\, \xi_{N,K,p} \right) \right)$	
59	188	134	$k_z^q := I_{N,A} \overset{N}{\star} \left(\left(V_N \right)^{-1} \,.\, C_{pN} \,.\, v_{zN} \right)$	
58	187	133	$k_y^q := I_{N,A} \overset{N}{\star} \left(\left(V_N \right)^{-1} \,.\, C_{pN} \,.\, v_{yN} \right)$	
57	186	132	$k_x^q := I_{N,A} \overset{N}{\star} \left(\left(V_N \right)^{-1} \,.\, C_{pN} \,.\, v_{xN} \right)$	
56	192	131	$\hat{k}_z^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{zN} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \,.\, \left(n_{N,S} \right)^{-1} \right)$	
55	182	129	$k_z^d := I_{N,A} \overset{N}{\star} \left(\left(\mu_{N,S} \right)^{-1} \,.\, \left(v_{zN} \,.\, \left(\left(V_N \right)^{-1} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
54	148	128	$A_{xy} := r_{xN} \,.\, r_{yN}$	
53	181	127	$k_y^d := I_{N,A} \overset{N}{\star} \left(\left(\mu_{N,S} \right)^{-1} \,.\, \left(v_{yN} \,.\, \left(\left(V_N \right)^{-1} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
52	191	125	$\hat{k}_y^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{yN} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \,.\, \left(n_{N,S} \right)^{-1} \right)$	
51	149	124	$A_{xz} := r_{xN} \,.\, r_{zN}$	
50	180	123	$k_x^d := I_{N,A} \overset{N}{\star} \left(\left(\mu_{N,S} \right)^{-1} \,.\, \left(v_{xN} \,.\, \left(\left(V_N \right)^{-1} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \right) \right) \right)$	
49	114	122	$\mu := \frac{\partial U_N}{\partial n_{N,S}}$	
48	114	118	$\mu := \mu^o{}_{N,S} + R \,.\, T_N \,.\, \mathbf{ln} \left(x_{N,S} \right)$	
47	190	115	$\hat{k}_x^{d,Fick} := I_{N,A} \overset{N}{\star} \left(v_{xN} \,.\, \frac{\partial U_N}{\partial \mu_{N,S}} \,.\, \left(n_{N,S} \right)^{-1} \right)$	
46	150	114	$A_{yz} := r_{yN} \,.\, r_{zN}$	
45	138	113	$c := \left(V_N \right)^{-1} \,.\, n_{N,S}$	
44	159	110	$\hat{V} := \left(\rho_A \right)^{-1} \,.\, k_{xA}^c \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} p_N$	
43	158	107	$c := \left(0.5 \,.\, \left(F_{N,A} - d_A \,.\, \left| F_{N,A} \right| \right) \right) \overset{N}{\star} c_{N,S}$	
42	201	104	$\_np := \mathbf{reduceSum} \left(\left(\left({F^{source}}_{N,I} \overset{N}{\star} \tilde{n}_{N,S,q} \right) \,.\, S_{I,q} \right), q \right)$	

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no	var	equ	quations	token
41	211	103	$\hat{w} := \mathbf{Instantiate}(\hat{q}_{xA}, \#)$	
40	153	101	$\hat{q}_z := k^q_{zA} \,.\, A_{xyN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
39	152	99	$\hat{q}_y := k^q_{yA} \,.\, A_{xzN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
38	151	97	$\hat{q}_x := k^q_{xA} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} T_N$	
37	156	95	$\hat{n}^d_z := \hat{k}^{d,Fick}{}_{A,S} \,.\, (A_{xyN} \,.\, F_{N,A}) \overset{N}{\star} c_{N,S}$	
36	156	92	$\hat{n}^d_z := k^d_{zA,S} \,.\, (A_{xyN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
35	155	90	$\hat{n}^d_y := k^d_{yA,S} \,.\, (A_{yzN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
34	155	87	$\hat{n}^d_y := \hat{k}^{d,Fick}{}_{A,S} \,.\, A_{xzN} \,.\, F_{N,A} \overset{N}{\star} c_{N,S}$	
33	154	84	$\hat{n}^d_x := k^d_{xA,S} \,.\, (A_{yzN} \,.\, F_{N,A}) \overset{N}{\star} \mu_{N,S}$	
32	154	80	$\hat{n}^d_x := \hat{k}^{d,Fick}{}_{A,S} \,.\, A_{yzN} \,.\, F_{N,A} \overset{N}{\star} c_{N,S}$	
31	160	77	$\hat{n}^c_x := \hat{V}_A \,.\, c_{A,S}$	
30	136	76	$h := H_N \,.\, (n_{N,S})^{-1}$	
29	202	73	$\tilde{n} := F^{source}{}_{N,I} \overset{I}{\star} \_np_{I,S}$	
28	195	72	$\dot{n}^d_x := F_{N,A} \overset{A}{\star} \hat{n}^d_{xA,S}$	
27	194	71	$\dot{n}^c_x := F_{N,A} \overset{A}{\star} \hat{n}^c_{xA,S}$	
26	214	69	$\dot{w} := F_{N,A} \overset{A}{\star} \hat{w}_A$	
25	210	67	$\dot{q}_z := F_{N,A} \overset{A}{\star} \hat{q}_{zA}$	
24	209	65	$\dot{q}_y := F_{N,A} \overset{A}{\star} \hat{q}_{yA}$	
23	208	63	$\dot{q}_x := F_{N,A} \overset{A}{\star} \hat{q}_{xA}$	
22	207	61	$\dot{H}^d_z := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{zA,S} \overset{S}{\star} h_{N,S} \right)$	

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no	var	equ	quations	token
21	206	59	$\dot{H}^d_y := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{yA,S} \overset{S}{\star} h_{N,S} \right)$	
20	205	57	$\dot{H}^d_x := F_{N,A} \overset{A}{\star} \left(\hat{n}^d_{xA,S} \overset{S}{\star} h_{N,S} \right)$	
19	204	53	$\dot{H}^c_x := F_{N,A} \overset{A}{\star} \left(\hat{n}^c_{xA,S} \overset{S}{\star} h_{N,S} \right)$	
18	203	52	$n^o := \mathbf{Instantiate}(n_{N,S}, \#)$	
17	196	48	$\dot{n} := \dot{n}^c_{xN,S} + \dot{n}^d_{xN,S} + V_N \,.\, \tilde{n}_{N,S}$	
16	216	47	$H^o := \mathbf{Instantiate}(H_N, \#)$	
15	215	38	$\dot{H} := \dot{H}^c_{xN} + \dot{H}^d_{xN} + \dot{H}^d_{yN} + \dot{H}^d_{zN} + \dot{q}_{xN} + \dot{q}_{yN} + \dot{q}_{zN} + \dot{w}_N$	
14	106	37	$t^e := \mathbf{Instantiate}(t, \#)$	
13	105	36	$t^o := \mathbf{Instantiate}(t, \#)$	
12	112	35	$p := \frac{\partial U_N}{\partial V_N}$	
11	110	31	$V := r_{xN} \,.\, r_{yN} \,.\, r_{zN}$	
10	222	30	$T^{ref} := \mathbf{Instantiate}(T_N, \#)$	
9	111	27	$n := \int_{t^o}^{t^e} \dot{n}_{N,S} \;\, d\,t + {n^o}_{N,S}$	
8	115	21	$H := \int_{t^o}^{t^e} \dot{H}_N \;\, d\,t + {H^o}_N$	
7	115	18	$H := U_N - p_N \,.\, V_N$	
6	113	16	$T := H_N \,.\, (C_{pN})^{-1} + {T^{ref}}_N$	
5	113	13	$T := \frac{\partial U_N}{\partial S_N}$	
4	141	11	$c_p := \mathbf{Instantiate}(c_{pN}, \#)$	
3	141	10	$c_p := C_{pN} \,.\, (m_N)^{-1}$	
2	137	7	$m := \lambda_S \overset{S}{\star} n_{N,S}$	

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no	var	equ	quations	token
1	124	4	$C_p := \frac{\partial H_N}{\partial T_N}$	
0	124	1	$C_p := m_N \,.\, c_{pN}$	