```
  1: Dp11    1+u1x
  2: Dp21    u2x
  3: Dp31    u3x
  4: Dp12    u1y
  5: Dp22    1+u2y
  6: Dp32    u3y
  7: Dp13    u1z
  8: Dp23    u2z
  9: Dp33    1+u3z
 10: f11     Dp11/beta^(1/3)
 11: f21     Dp21/beta^(1/3)
 12: f31     Dp31/beta^(1/3)
 13: f12     Dp12/beta^(1/3)
 14: f22     Dp22/beta^(1/3)
 15: f32     Dp32/beta^(1/3)
 16: f13     Dp13/beta^(1/3)
 17: f23     Dp23/beta^(1/3)
 18: f33     Dp33/beta^(1/3)
 19: B11     f11*f11+f12*f12+f13*f13
 20: B12     f11*f21+f12*f22+f13*f23
 21: B13     f11*f31+f12*f32+f13*f33
 22: B21     f21*f11+f22*f12+f23*f13
 23: B22     f21*f21+f22*f22+f23*f23
 24: B23     f21*f31+f22*f32+f23*f33
 25: B31     f31*f11+f32*f12+f33*f13
 26: B32     f31*f21+f32*f22+f33*f23
 27: B33     f31*f31+f32*f32+f33*f33
 28: detF    -(f13*f22*f31)+f12*f23*f31+f13*f21*f32-f11*f23*f32-f12*f21*f33+f11*f22*f33
 29: J       detF
 30: i1      B11+B22+B33
 31: i2      (i1^2-(B11^2+B12^2+B13^2+B21^2+B22^2+B23^2+B31^2+B32^2+B33^2))/2
 32: cfF11   -(f23*f32)+f22*f33
 33: cfF12   f23*f31-f21*f33
 34: cfF13   -(f22*f31)+f21*f32
 35: cfF21   f13*f32-f12*f33
 36: cfF22   -(f13*f31)+f11*f33
 37: cfF23   f12*f31-f11*f32
 38: cfF31   -(f13*f22)+f12*f23
 39: cfF32   f13*f21-f11*f23
 40: cfF33   -(f12*f21)+f11*f22
 41: cfDp11  cfF11*beta^(2/3)
 42: cfDp21  cfF21*beta^(2/3)
 43: cfDp31  cfF31*beta^(2/3)
 44: cfDp12  cfF12*beta^(2/3)
 45: cfDp22  cfF22*beta^(2/3)
 46: cfDp32  cfF32*beta^(2/3)
 47: cfDp13  cfF13*beta^(2/3)
 48: cfDp23  cfF23*beta^(2/3)
 49: cfDp33  cfF33*beta^(2/3)
 50: finv11  cfF11/detF
 51: finv21  cfF12/detF
 52: finv31  cfF13/detF
 53: finv12  cfF21/detF
 54: finv22  cfF22/detF
 55: finv32  cfF23/detF
 56: finv13  cfF31/detF
 57: finv23  cfF32/detF
 58: finv33  cfF33/detF
 59: f11t    u1xt/beta^(1/3)-(1/3)*(1+u1x)/beta^(4/3)*betat
 60: f21t    u2xt/beta^(1/3)-(1/3)*u2x/beta^(4/3)*betat
 61: f31t    u3xt/beta^(1/3)-(1/3)*u3x/beta^(4/3)*betat
 62: f12t    u1yt/beta^(1/3)-(1/3)*u1y/beta^(4/3)*betat
 63: f22t    u2yt/beta^(1/3)-(1/3)*(1+u2y)/beta^(4/3)*betat
 64: f32t    u3yt/beta^(1/3)-(1/3)*u3y/beta^(4/3)*betat
 65: f13t    u1zt/beta^(1/3)-(1/3)*u1z/beta^(4/3)*betat
 66: f23t    u2zt/beta^(1/3)-(1/3)*u2z/beta^(4/3)*betat
 67: f33t    u3zt/beta^(1/3)-(1/3)*(1+u3z)/beta^(4/3)*betat
 68: Dv11    f11t*finv11+f12t*finv21+f13t*finv31
 69: Dv21    f21t*finv11+f22t*finv21+f23t*finv31
 70: Dv31    f31t*finv11+f32t*finv21+f33t*finv31
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 71: Dv12    f11t*finv12+f12t*finv22+f13t*finv32
 72: Dv22    f21t*finv12+f22t*finv22+f23t*finv32
 73: Dv32    f31t*finv12+f32t*finv22+f33t*finv32
 74: Dv13    f11t*finv13+f12t*finv23+f13t*finv33
 75: Dv23    f21t*finv13+f22t*finv23+f23t*finv33
 76: Dv33    f31t*finv13+f32t*finv23+f33t*finv33
 77: So11    (Se11+Sdiss11)*beta^(2/3)
 78: So21    (Se21+Sdiss21)*beta^(2/3)
 79: So31    (Se31+Sdiss31)*beta^(2/3)
 80: So12    (Se12+Sdiss12)*beta^(2/3)
 81: So22    (Se22+Sdiss22)*beta^(2/3)
 82: So32    (Se32+Sdiss32)*beta^(2/3)
 83: So13    (Se13+Sdiss13)*beta^(2/3)
 84: So23    (Se23+Sdiss23)*beta^(2/3)
 85: So33    (Se33+Sdiss33)*beta^(2/3)
 86: Se11    2*kI*J^(-2/3)*(f11-(i1/3)*finv11)+2*kV*(J-1)*cfF11
 87: Se12    2*kI*J^(-2/3)*(f12-(i1/3)*finv21)+2*kV*(J-1)*cfF12
 88: Se13    2*kI*J^(-2/3)*(f13-(i1/3)*finv31)+2*kV*(J-1)*cfF13
 89: Se21    2*kI*J^(-2/3)*(f21-(i1/3)*finv12)+2*kV*(J-1)*cfF21
 90: Se22    2*kI*J^(-2/3)*(f22-(i1/3)*finv22)+2*kV*(J-1)*cfF22
 91: Se23    2*kI*J^(-2/3)*(f23-(i1/3)*finv32)+2*kV*(J-1)*cfF23
 92: Se31    2*kI*J^(-2/3)*(f31-(i1/3)*finv13)+2*kV*(J-1)*cfF31
 93: Se32    2*kI*J^(-2/3)*(f32-(i1/3)*finv23)+2*kV*(J-1)*cfF32
 94: Se33    2*kI*J^(-2/3)*(f33-(i1/3)*finv33)+2*kV*(J-1)*cfF33
 95: Sdiss11 cfF11*Tdiss11+cfF21*Tdiss12+cfF31*Tdiss13
 96: Sdiss12 cfF12*Tdiss11+cfF22*Tdiss12+cfF32*Tdiss13
 97: Sdiss13 cfF13*Tdiss11+cfF23*Tdiss12+cfF33*Tdiss13
 98: Sdiss21 cfF11*Tdiss21+cfF21*Tdiss22+cfF31*Tdiss23
 99: Sdiss22 cfF12*Tdiss21+cfF22*Tdiss22+cfF32*Tdiss23
100: Sdiss23 cfF13*Tdiss21+cfF23*Tdiss22+cfF33*Tdiss23
101: Sdiss31 cfF11*Tdiss31+cfF21*Tdiss32+cfF31*Tdiss33
102: Sdiss32 cfF12*Tdiss31+cfF22*Tdiss32+cfF32*Tdiss33
103: Sdiss33 cfF13*Tdiss31+cfF23*Tdiss32+cfF33*Tdiss33
104: T11     (Te11+Tdiss11)
105: T21     (Te21+Tdiss21)
106: T31     (Te31+Tdiss31)
107: T12     (Te12+Tdiss12)
108: T22     (Te22+Tdiss22)
109: T32     (Te32+Tdiss32)
110: T13     (Te13+Tdiss13)
111: T23     (Te23+Tdiss23)
112: T33     (Te33+Tdiss33)
113: Te11    2*kI*J^(-5/3)*(B11-i1/3)+2*kV*(J-1)
114: Te12    2*kI*J^(-5/3)*B12
115: Te13    2*kI*J^(-5/3)*B13
116: Te21    2*kI*J^(-5/3)*B21
117: Te22    2*kI*J^(-5/3)*(B22-i1/3)+2*kV*(J-1)
118: Te23    2*kI*J^(-5/3)*B23
119: Te31    2*kI*J^(-5/3)*B31
120: Te32    2*kI*J^(-5/3)*B32
121: Te33    2*kI*J^(-5/3)*(B33-i1/3)+2*kV*(J-1)
122: Tdiss11 mu*(Dv11+Dv11)
123: Tdiss12 mu*(Dv12+Dv21)
124: Tdiss13 mu*(Dv13+Dv31)
125: Tdiss21 mu*(Dv21+Dv12)
126: Tdiss22 mu*(Dv22+Dv22)
127: Tdiss23 mu*(Dv23+Dv32)
128: Tdiss31 mu*(Dv31+Dv13)
129: Tdiss32 mu*(Dv32+Dv23)
130: Tdiss33 mu*(Dv33+Dv33)
131: TSph    (T11+T22+T33)/3
132: phi     kI*(J^(-2/3)*i1-3)+kV*(J-1)^2
133: pEsh    phi-detF*TSph
134: DpEsh1  d(pEsh,x)
135: DpEsh2  d(pEsh,y)
136: DpEsh3  d(pEsh,z)
137: chmu    pEsh*(alpha/rho0)
138: Dchmu1  DpEsh1*(alpha/rho0)
139: Dchmu2  DpEsh2*(alpha/rho0)
140: Dchmu3  DpEsh3*(alpha/rho0)
```

```
141: ho1      -D*Dchmu1
142: ho2      -D*Dchmu2
143: ho3      -D*Dchmu3
144: beta     1+alpha*c
145: betat    alpha*ct
146: tchmu    test(c)*1[Pa*m^3/mol]
147: tDchmu1 test(cx)*1[Pa*m^3/mol]
148: tDchmu2 test(cy)*1[Pa*m^3/mol]
149: tDchmu3 test(cz)*1[Pa*m^3/mol]
150: tv1      test(u1)*1[1/s]
151: tv2      test(u2)*1[1/s]
152: tv3      test(u3)*1[1/s]
153: tDv11    test(u1x)*1[1/s]
154: tDv21    test(u2x)*1[1/s]
155: tDv31    test(u3x)*1[1/s]
156: tDv12    test(u1y)*1[1/s]
157: tDv22    test(u2y)*1[1/s]
158: tDv32    test(u3y)*1[1/s]
159: tDv13    test(u1z)*1[1/s]
160: tDv23    test(u2z)*1[1/s]
161: tDv33    test(u3z)*1[1/s]
```