```
State( 21):    ChebCoeff_02                0.22356           0.20000           1.00000
State( 22):    Bkg_Scale_01                0.25361           0.02600           1.00000
=> Iteration      2   R-Factor =           4.7140    Chi2 =          0.3400
State(  1):    Scale_Factor                1.00850           1.00676           1.00000
State(  2):    cell_a                      3.12935           3.12857           1.00000
State(  3):    cell_b                      3.12935           3.12857           1.00000
State(  4):    u                           0.01346           0.01909           1.00000
State(  5):    alpha0401                   0.10691           0.10604          -1.00000
State(  6):    alpha0404                   0.89309           0.89396           1.00000
State(  7):    Dg                        447.77664         438.82492           1.00000
State(  8):    num_layers                 30.07755          27.07360           1.00000
State(  9):    pos_z0201                   0.22262           0.22241           1.00000
State( 10):    pos_z0202                   0.22262           0.22241           1.00000
State( 11):    Dl                        454.88370         431.11209           1.00000
State( 12):    alpha0101                   0.81239           0.82070          -2.00000
State( 13):    alpha0102                   0.09381           0.08965           1.00000
State( 14):    alpha0104                   0.09381           0.08965           1.00000
State( 15):    alpha0202                   0.92024           0.91589          -1.00000
State( 16):    alpha0203                   0.07976           0.08411           1.00000
State( 17):    alpha0301                   0.13771           0.13474          -1.00000
State( 18):    alpha0303                   0.86229           0.86526           1.00000
State( 19):    cell_c                      4.60875           4.60913           1.00000
State( 20):    ChebCoeff_01               -0.13444          -0.18202           1.00000
State( 21):    ChebCoeff_02                0.13713           0.22356           1.00000
State( 22):    Bkg_Scale_01                0.25370           0.25361           1.00000
=> Iteration      3   R-Factor =           2.2782    Chi2 =          0.0927
State(  1):    Scale_Factor                1.01231           1.00850           1.00000
State(  2):    cell_a                      3.12877           3.12935           1.00000
State(  3):    cell_b                      3.12877           3.12935           1.00000
State(  4):    u                           0.04624           0.01346           1.00000
State(  5):    alpha0401                   0.10830           0.10691          -1.00000
State(  6):    alpha0404                   0.89170           0.89309           1.00000
State(  7):    Dg                        483.88968         447.77664           1.00000
State(  8):    num_layers                 30.12982          30.07755           1.00000
State(  9):    pos_z0201                   0.22294           0.22262           1.00000
State( 10):    pos_z0202                   0.22294           0.22262           1.00000
State( 11):    Dl                        461.69067         454.88370           1.00000
State( 12):    alpha0101                   0.80535           0.81239          -2.00000
State( 13):    alpha0102                   0.09733           0.09381           1.00000
State( 14):    alpha0104                   0.09733           0.09381           1.00000
State( 15):    alpha0202                   0.92046           0.92024          -1.00000
State( 16):    alpha0203                   0.07954           0.07976           1.00000
State( 17):    alpha0301                   0.13469           0.13771          -1.00000
State( 18):    alpha0303                   0.86531           0.86229           1.00000
State( 19):    cell_c                      4.60853           4.60875           1.00000
State( 20):    ChebCoeff_01               -0.12781          -0.13444           1.00000
State( 21):    ChebCoeff_02                0.13290           0.13713           1.00000
State( 22):    Bkg_Scale_01                0.25355           0.25370           1.00000
=> Iteration      4   R-Factor =           2.0229    Chi2 =          0.0673
```