The Mass Conservation Additions to the Multisignal Sedimentation Velocity Global Parameter Window in SEDPHAT

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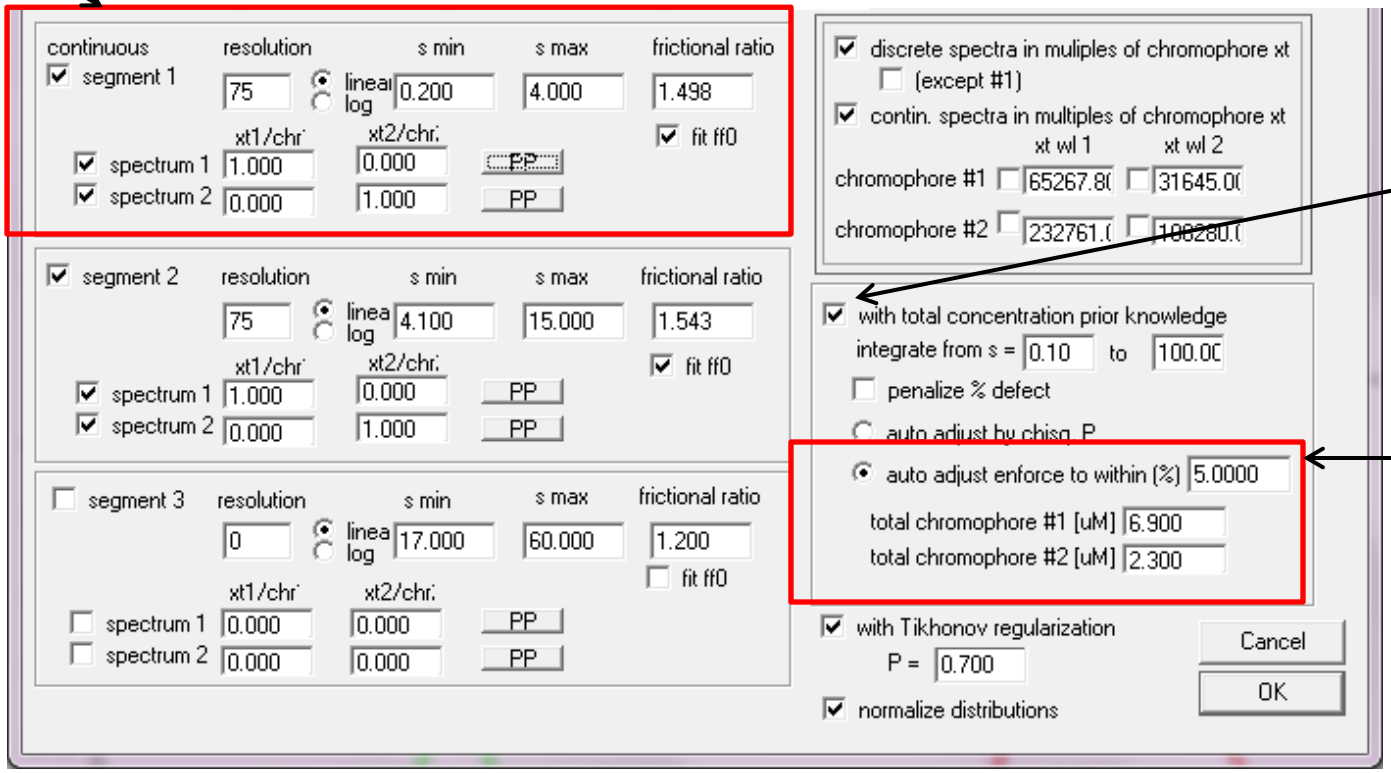
Standard Mass Conservation

Here, two “spectra” are being used to describe the information between 0.2 and 4 S.

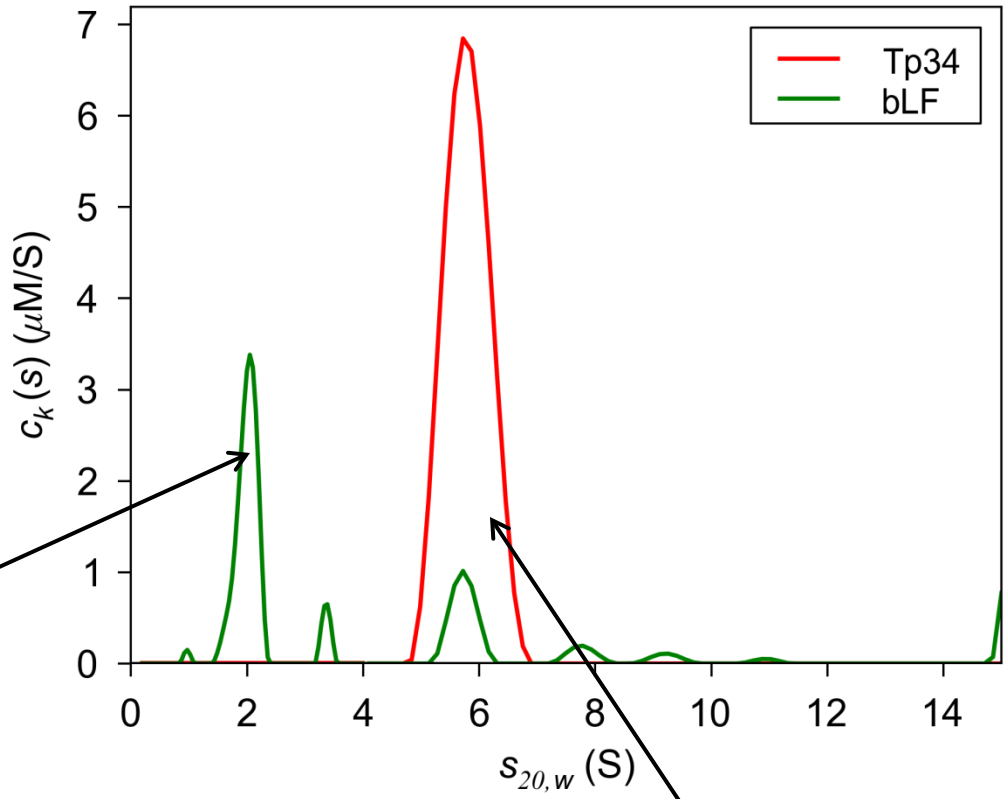


The checkbox turns Mass Conservation on.

The enforce to within % option has been selected, and 5.0 has been input to the entry box. The known concentrations of chromophore #1 (Tp34) and chromophore #2 (bLF) have been input.

The Resulting Distribution

The preceding parameters could work for a better-behaved case, but there are pathologies present for these data:

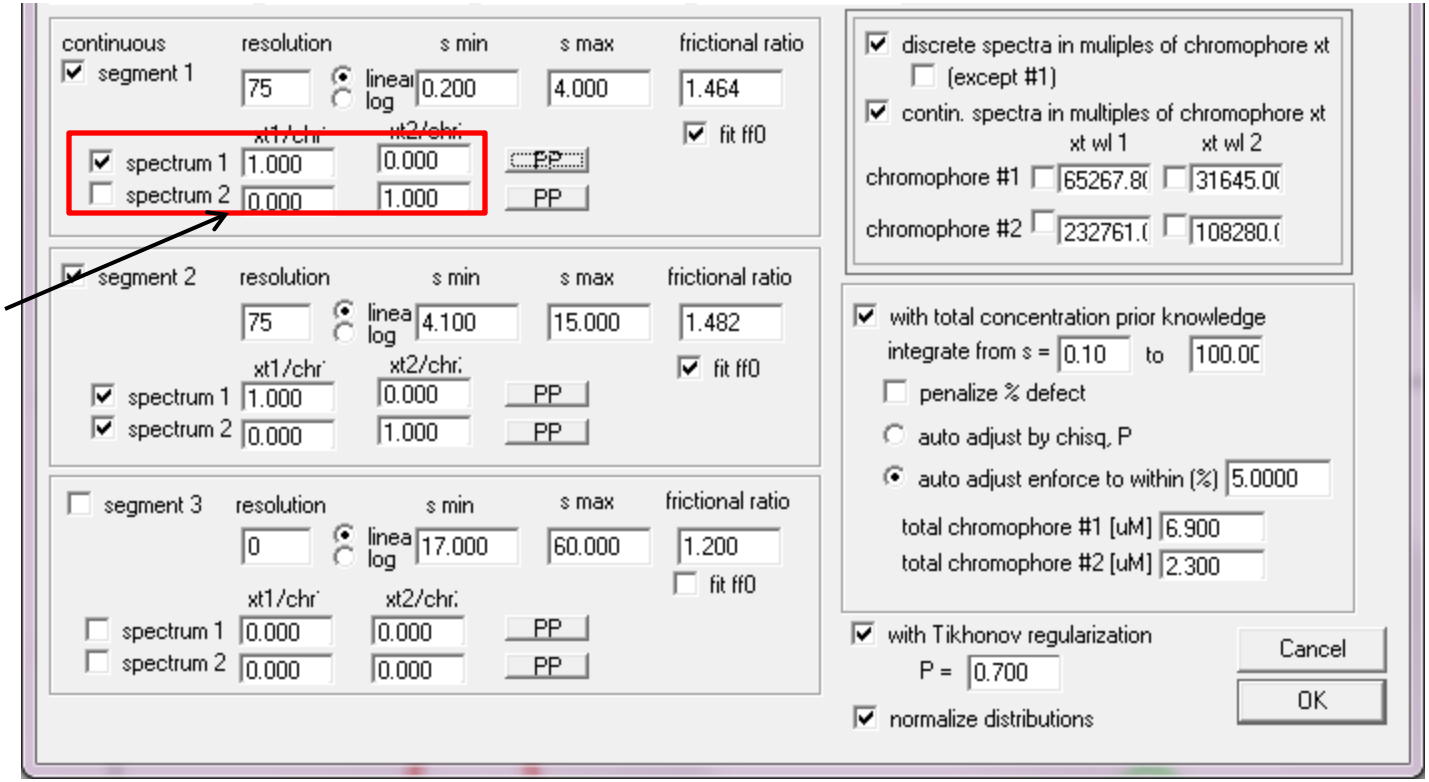


bLF at impossibly low s-values.

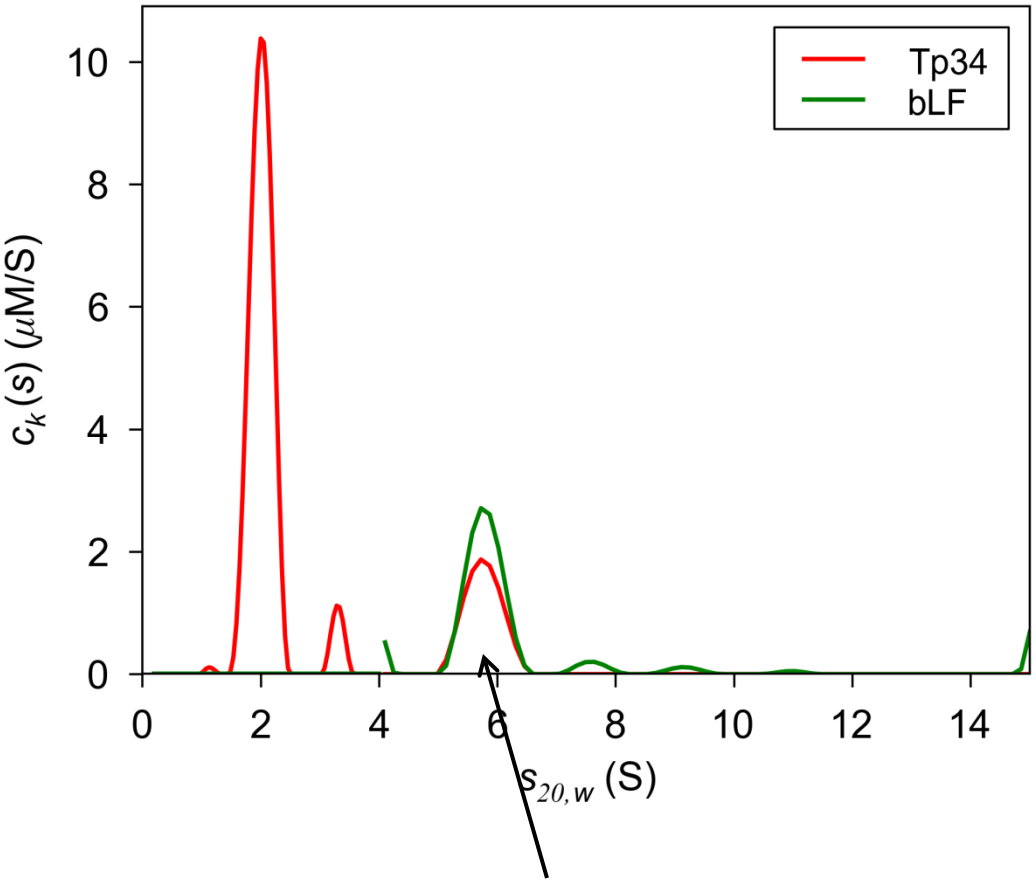
Drastically incorrect molar ratio for co-sedimenting material.

Low-*s*-Constrained Mass Conservation

Here, spectrum 2 , which accounts for bLF, has been turned off, forcing all of the low-s material to be Tp34.



The Final Distribution



Now, a reasonable ratio of Tp34:bLF is found.