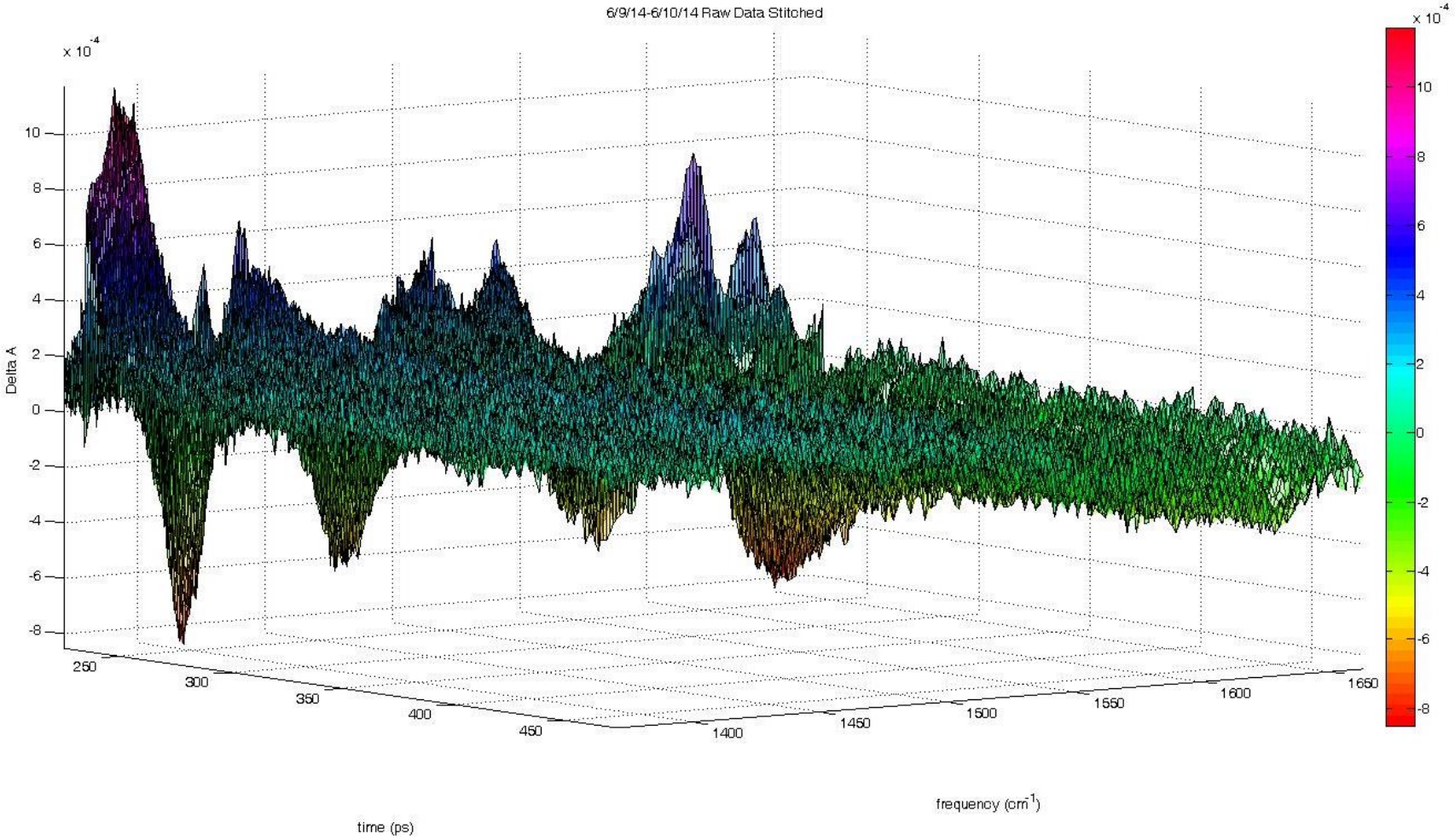
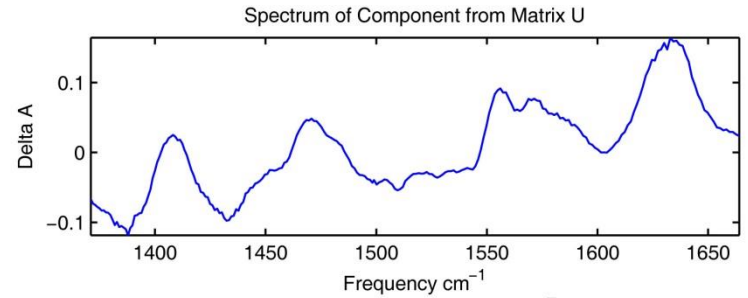
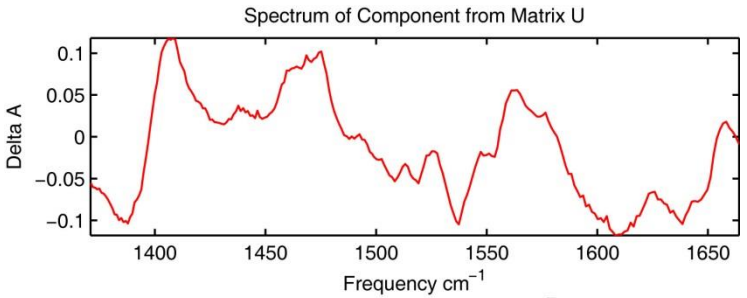
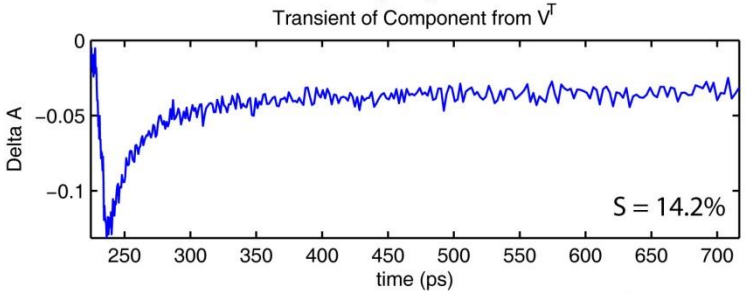
# Stitched MetHb Data

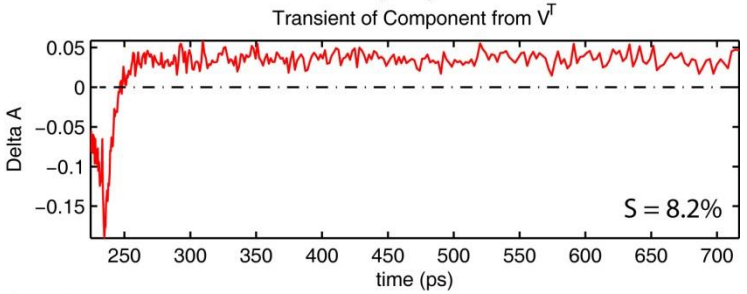


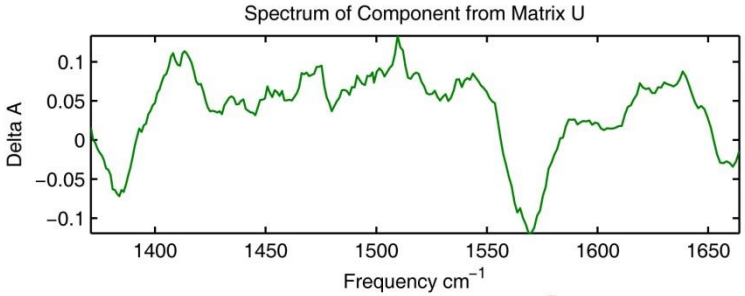
# U and $V^T$ Components

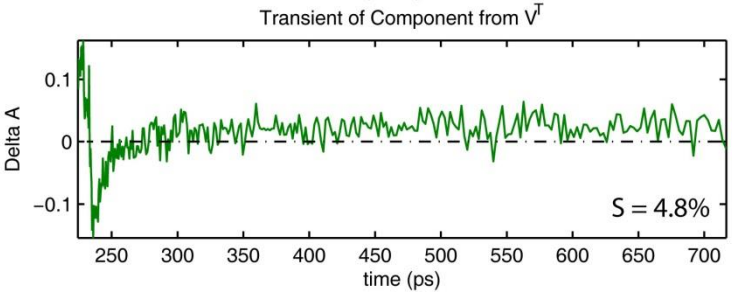


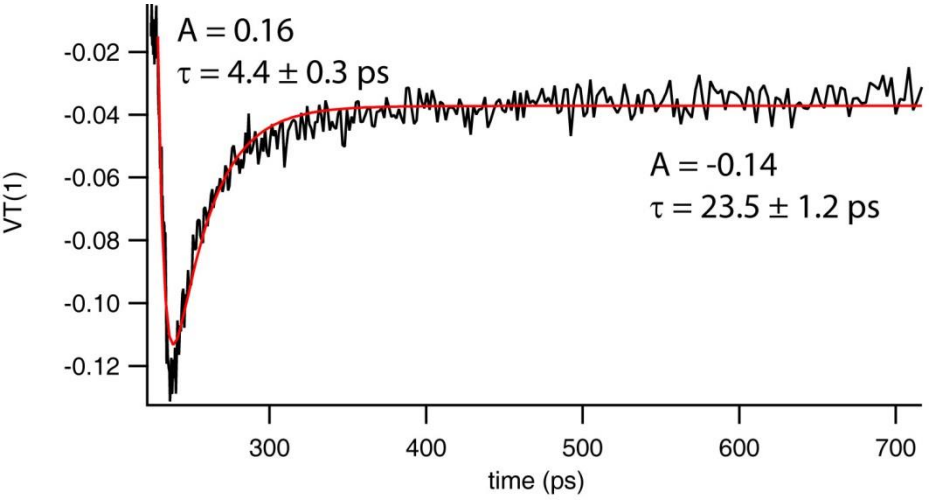



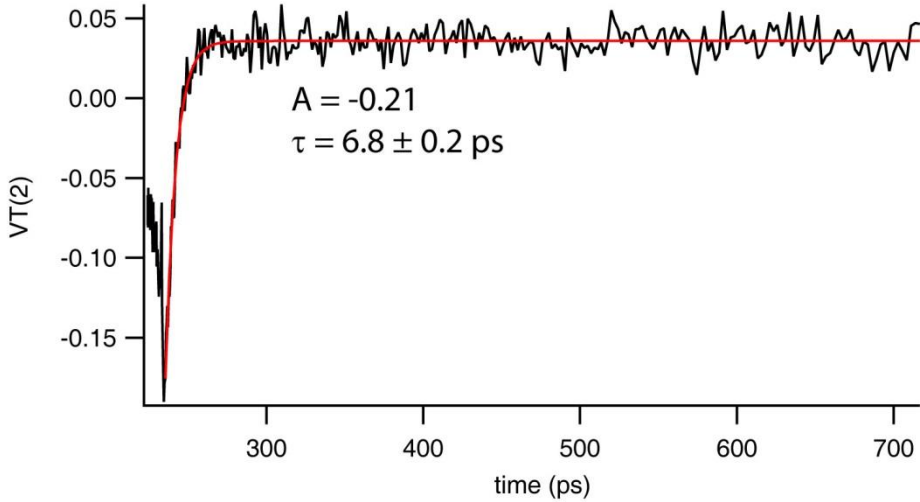



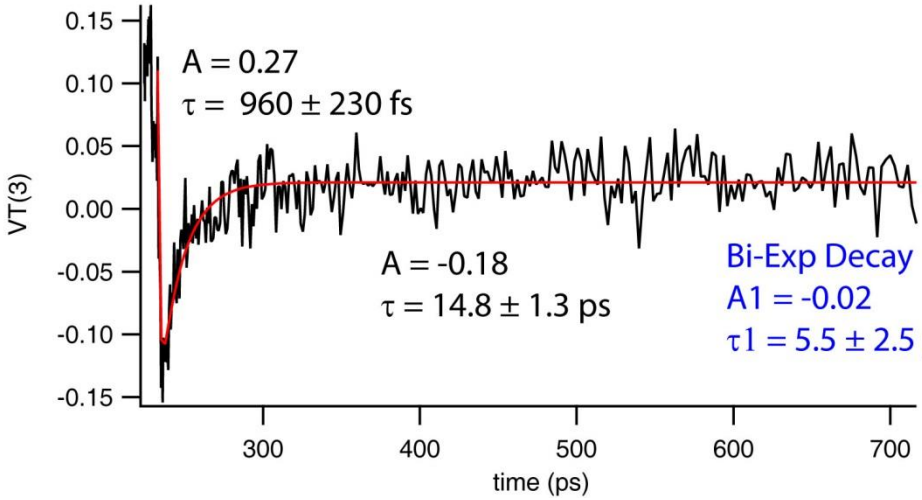



# MetHb in $D_2O$ - VT Fitting

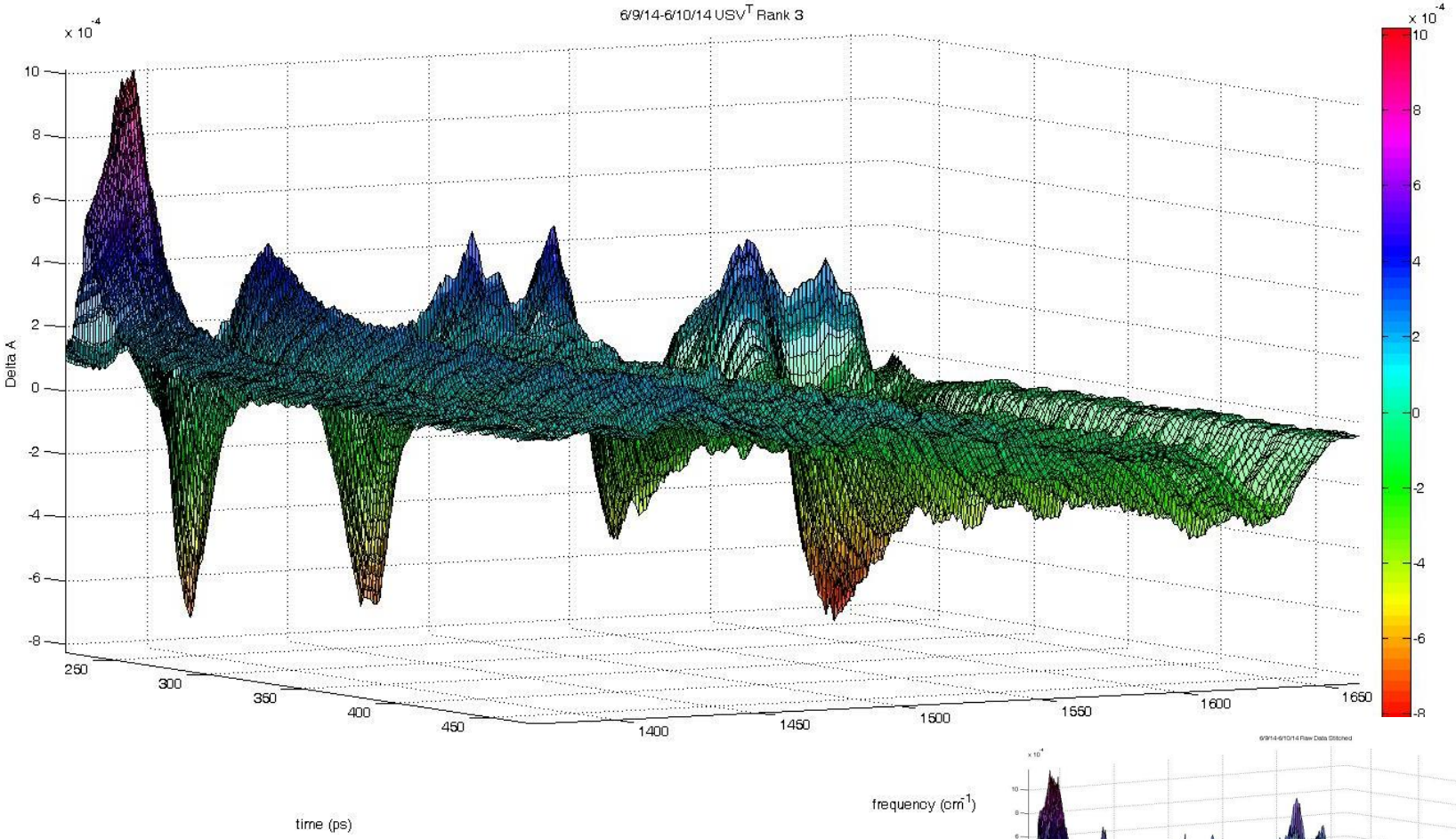


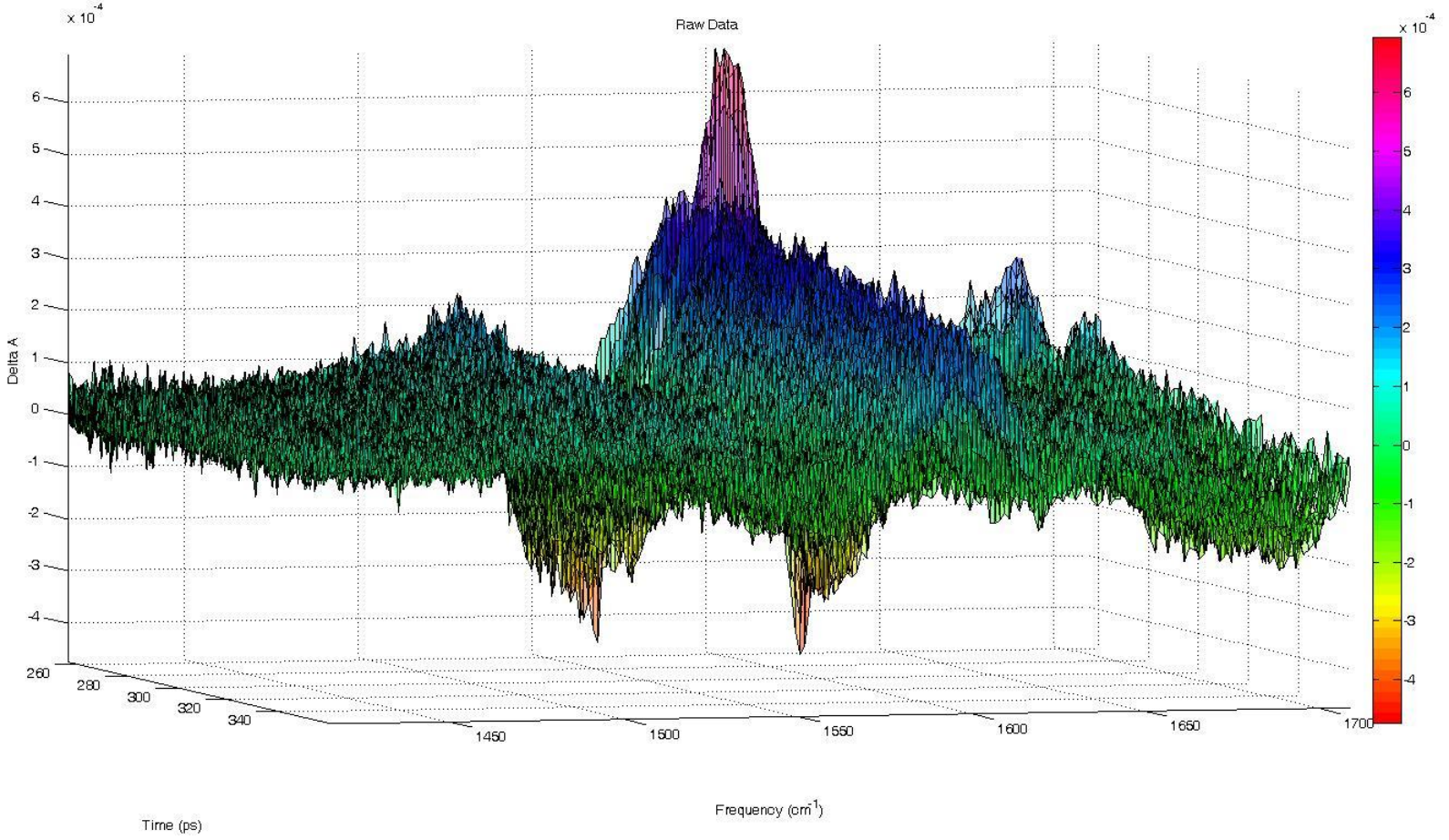




Bi-Exp Decay
A1 = -0.02 A2 = -0.06
τ1 = 5.5 ± 2.5 ps τ2 = 29.6 ± 16.8 ps

# U*S*V$^T$ to Rank 3



# MetHb EG/$D_2O$ Stitched Raw Data

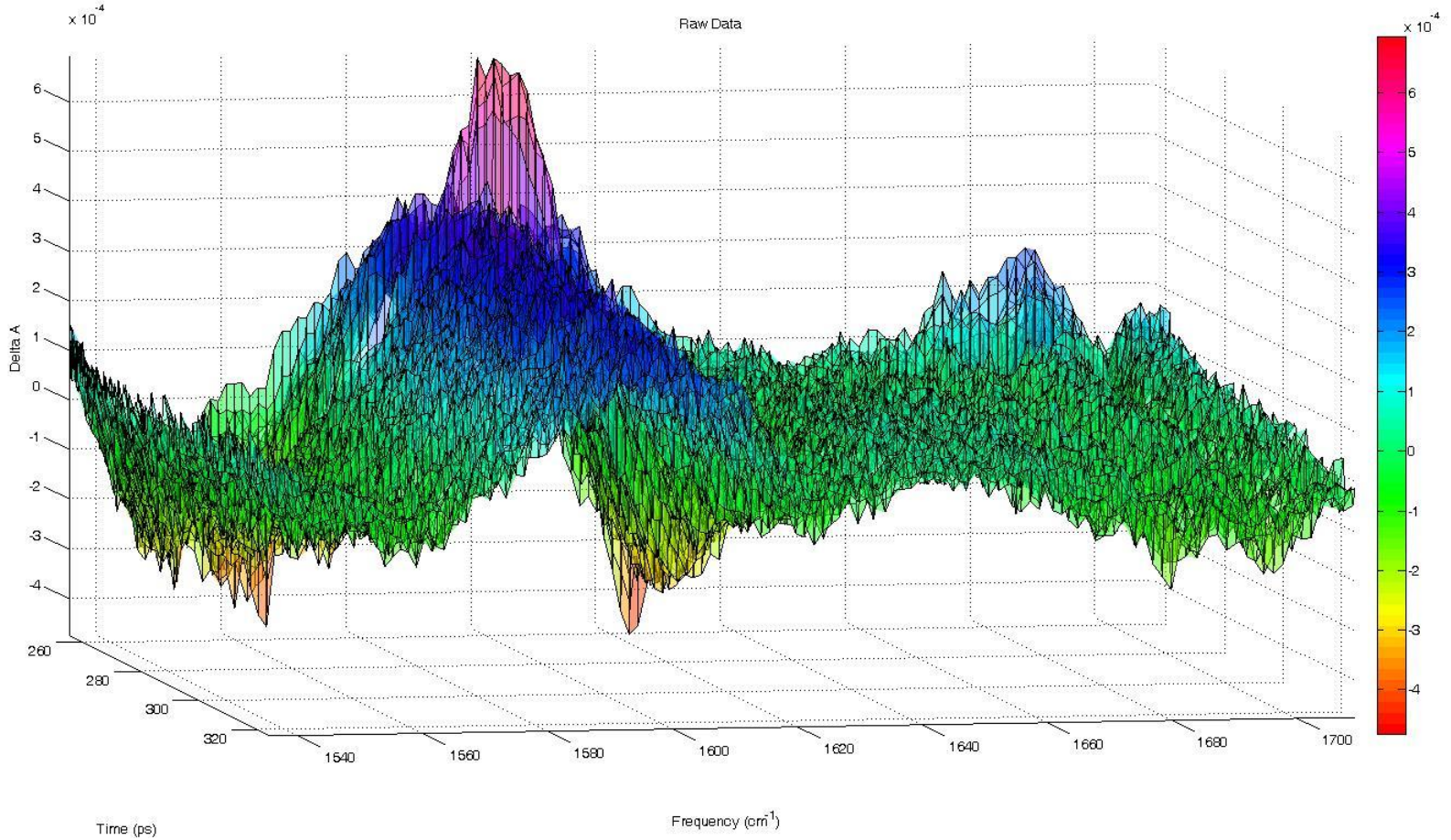



Incomplete Low Frequency Data, only down to ~1420 $cm^{-1}$

Missing principal heme mode at 1407 $cm^{-1}$

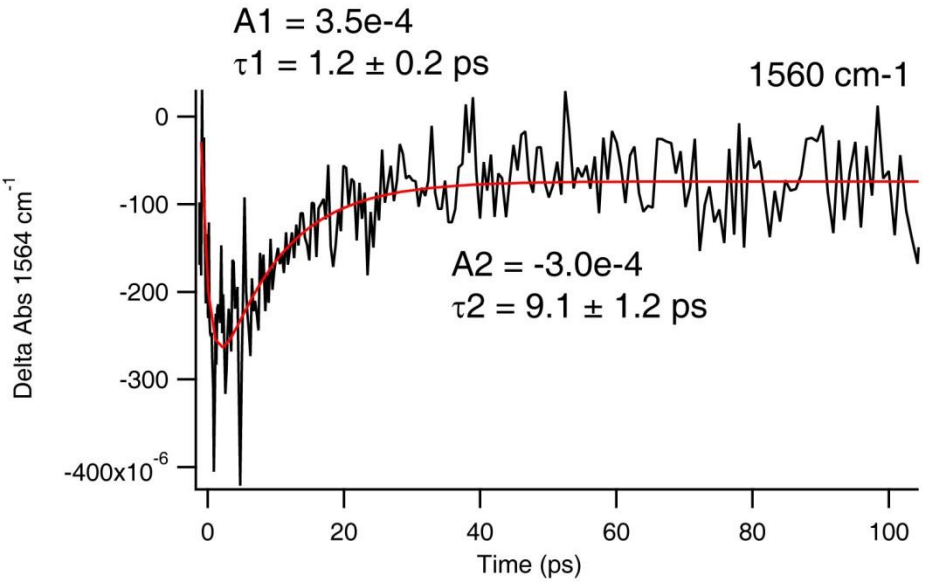
SVD of whole data doesn't add anything compared to high frequency half

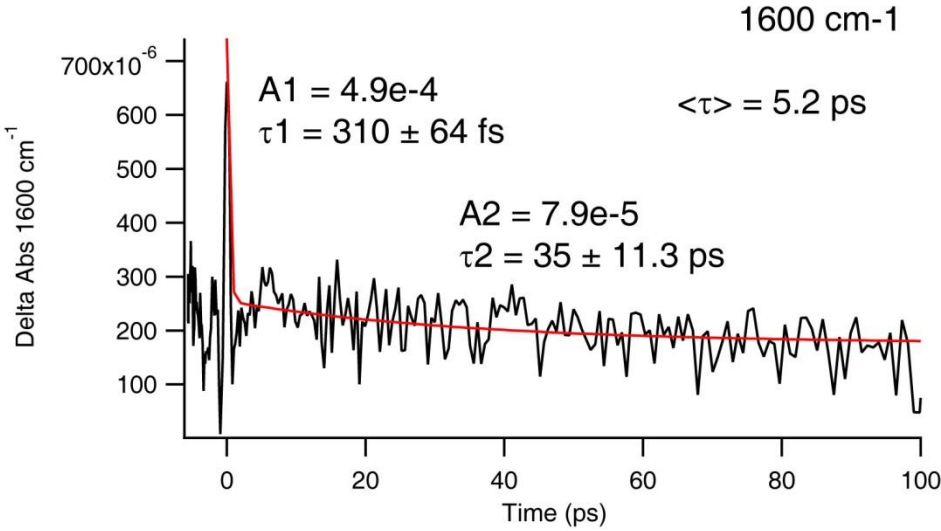
# Raw Data: MetHb EG/$D_2O$ 1530-1710 $cm^{-1}$



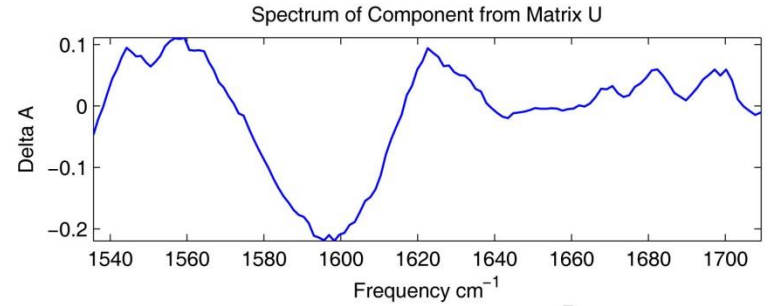
# MetHb in EG/$D_2O$ Raw Transient Fits

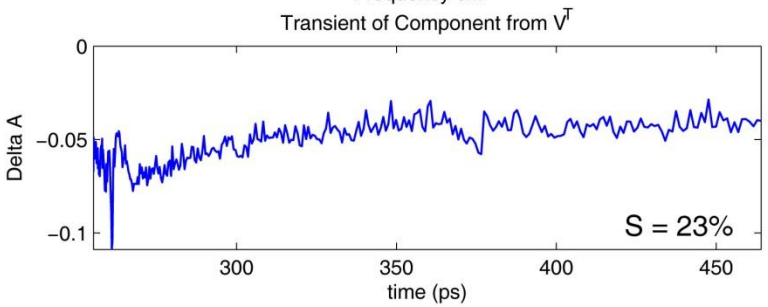
- Transients are noisy, so fits have larger std. dev.
- MetHb in $D_2O$ @ 1560 cm-1
  - same bleach time
  - faster decay time (~2 ps) but noisier data

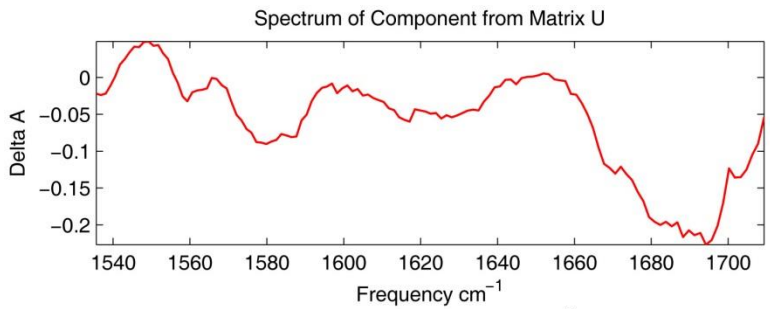


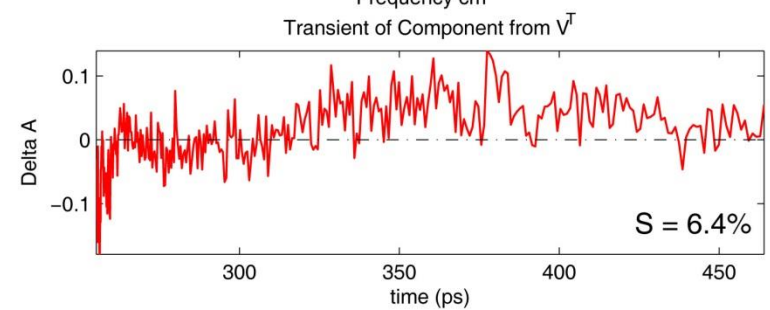



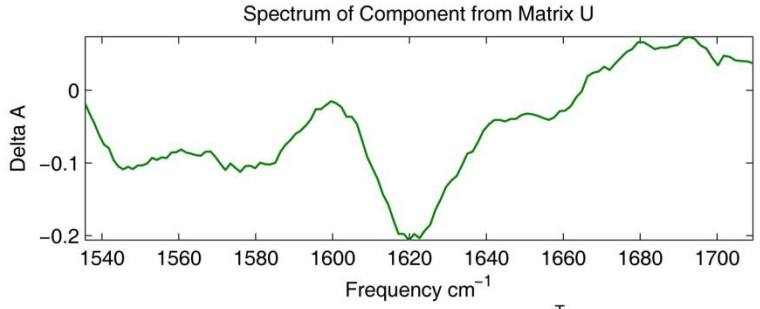
# U and $V^T$ to Rank 2: MetHb EG/$D_2O$ 1530-1710 $cm^{-1}$

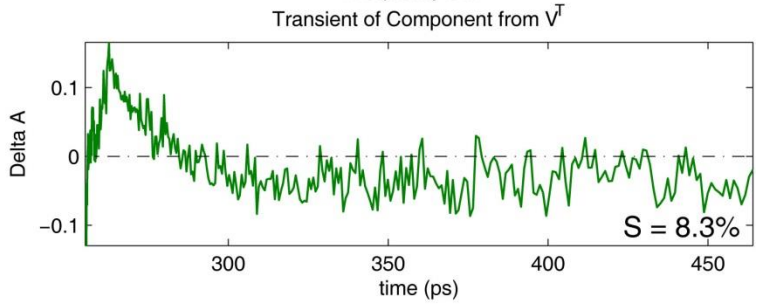


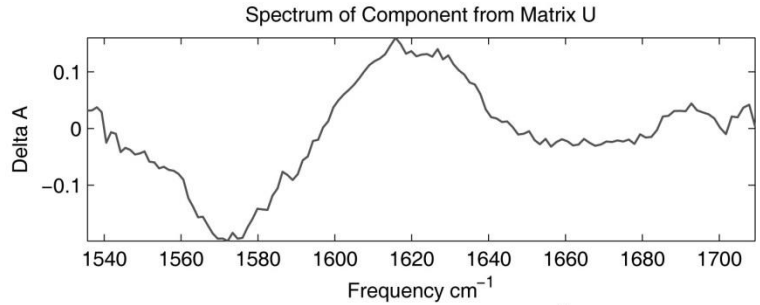



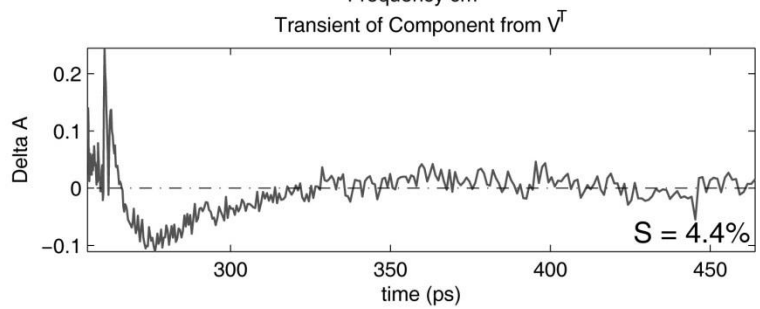



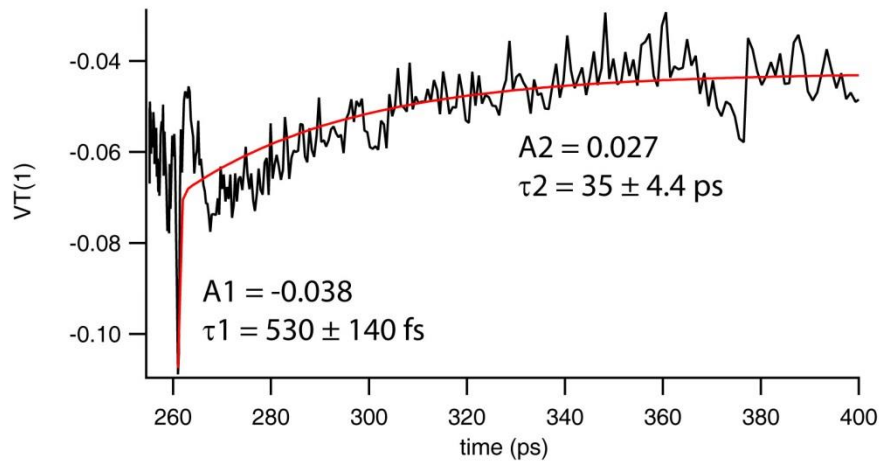



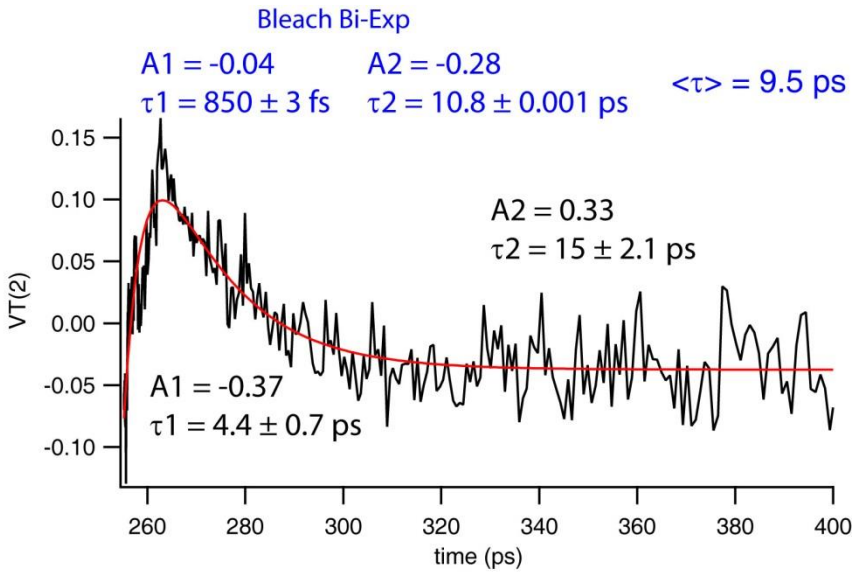



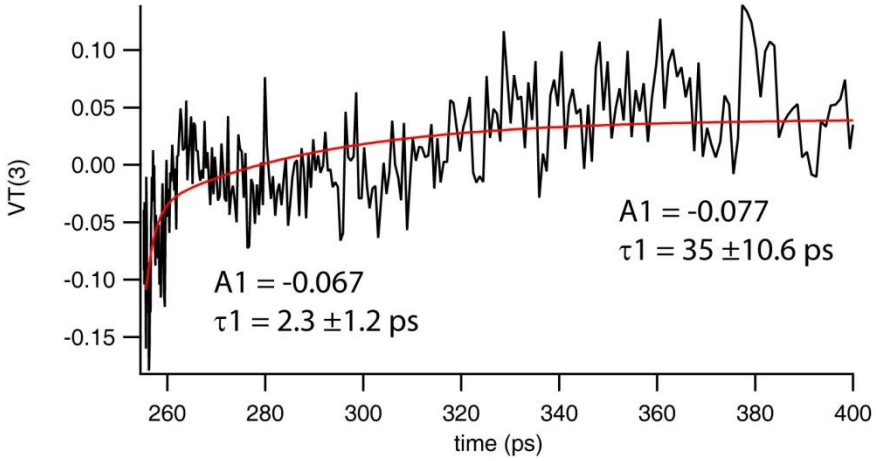



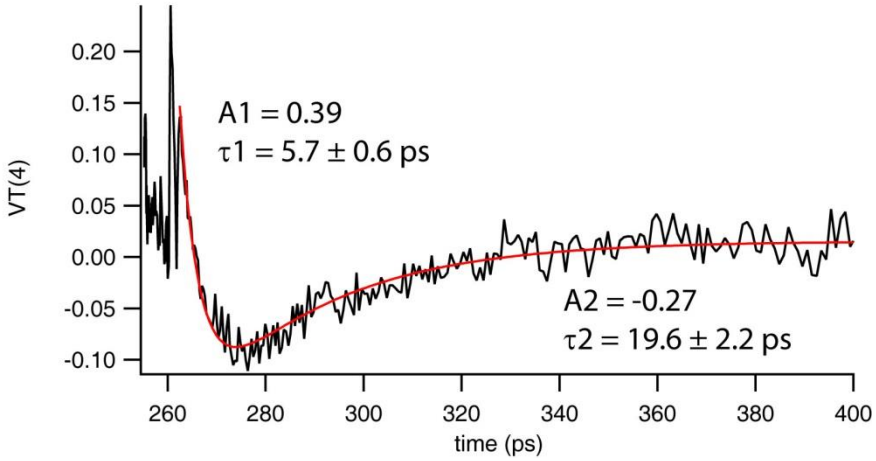



# $V^T$ Fitting to Rank 2: MetHb EG/$D_2O$ 1530-1710 $cm^{-1}$

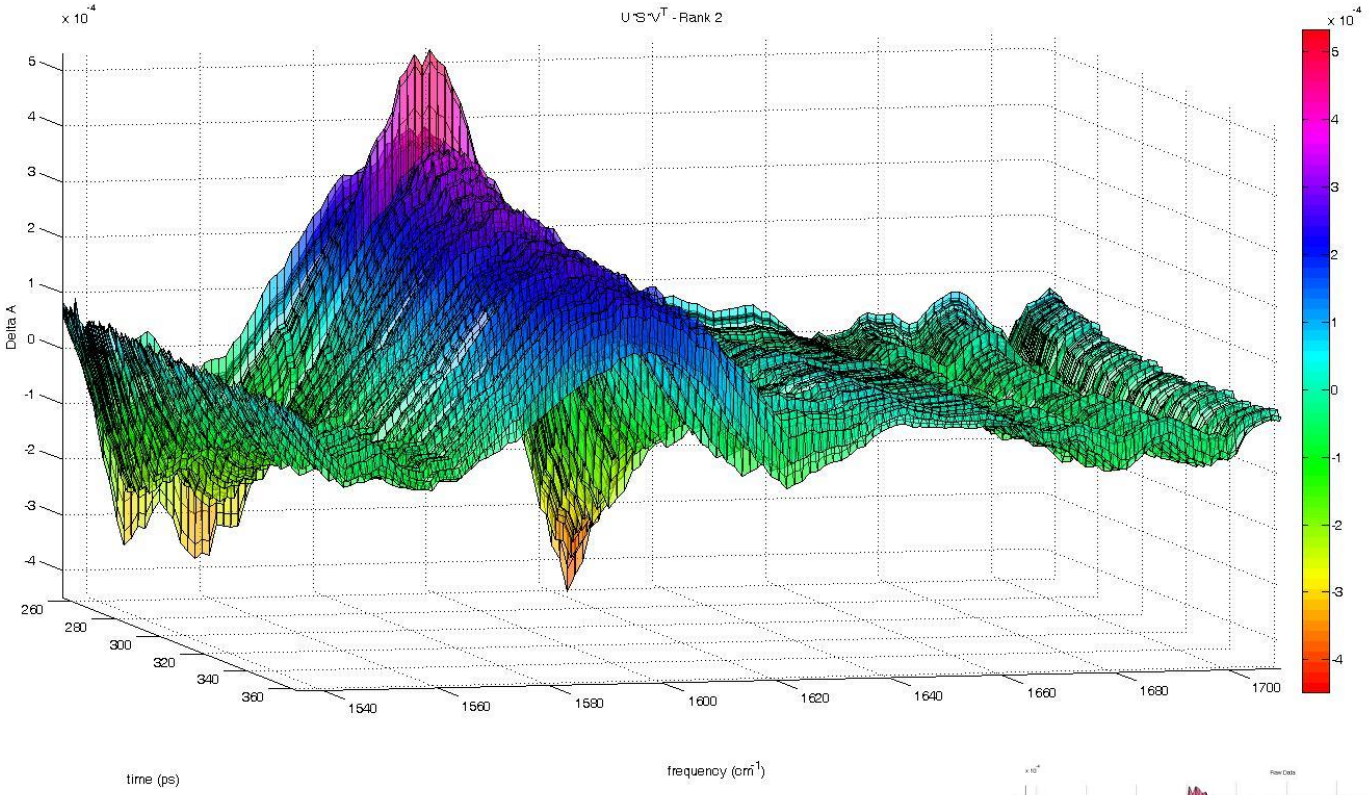


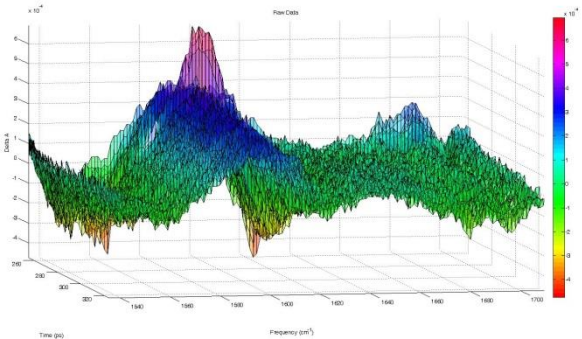



# $U*S*V^T$: MetHb in $EG/D_2O$ 1530-1710 $cm^{-1}$ Rank 2




Comparison to Raw Data



# $U*S*V^T$: MetHb in $EG/D_2O$ 1530-1710 $cm^{-1}$ Rank 4