Figure S1. Mass spectrometric evidence of disulfide formation. An in-gel trypsin digest of A361C/G438C MetRS was analyzed by LC-MS in positive ion mode. The CID spectrum shown indicates the presence of disulfide-linked peptides $^{357}$YYYTCK$^{362}$ and $^{436}$EFCK$^{439}$ (calculated mass for [M+2H]$^{2+}$ - H$_2$O is 673.80). This peak was not present in the corresponding CID spectrum of wild-type MetRS.