# **Dictionary Methods**

#### Method 1: Unmodified

#### Carbon Template

kphOthers\_Cscore\_dict, kphTrO1\_Cscore\_dict, kphTrO2\_Cscore\_dict others\_Cscore\_dict, flaggedStars\_Cscore\_dict, wNm\_Cscore\_dict, carbon\_Cscore\_dict, others\_Cscore\_dict, wNm\_Cscore\_dict

#### Weak CN Template

kphOthers\_score\_dict, kphTrO1\_score\_dict, kphTrO2\_score\_dict, others\_score\_dict flaggedStars\_score\_dict, wNm\_score\_dict, carbon\_score\_dict weak\_score\_dict, marginal\_score\_dict

## Method 1: Unmodified - 1U

#### Carbon Template

carbon\_Cscore\_dict\_1U, wNm\_Cscore\_dict\_1U, others\_Cscore\_dict\_1U, kphOthers\_Cscore\_dict\_1U

## Weak CN Template

carbon\_score\_dict\_1U , wNm\_score\_dict\_1U others\_score\_dict\_1U, kphOthers\_score\_dict\_1U

#### Method 2: Modified Diluted:

#### Carbon Template

getRanger findOptimalC seeModTemplate

wNm\_c\_dict, wNm\_s\_dict, wNm\_score2\_dict carbon\_c\_dict, carbon\_s\_dict, carbon\_score2\_dict kphTrO1\_c\_dict, kphTrO1\_s\_dict, kphTrO1\_score2\_dict kphTrO2\_c\_dict, kphTrO2\_s\_dict, kphTrO2\_score2\_dict kphOthers\_c\_dict, kphOthers\_s\_dict, kphOthers\_score2\_dict others c\_dict, others s\_dict, others score2\_dict

W Template findWOptimalC seeModWTemplate

wNm\_c\_wdict, wNm\_s\_wdict, wNm\_score2\_wdict carbon\_c\_wdict, carbon\_s\_wdict, carbon\_score2\_wdict kphTrO1\_c\_wdict, kphTrO1\_s\_wdict, kphTrO1\_score2\_wdict kphTrO2\_c\_wdict, kphTrO2\_s\_wdict, kphTrO2\_score2\_wdict kphOthers\_c\_wdict, kphOthers\_s\_wdict, kphOthers\_score2\_wdict others\_c\_wdict, others\_s\_wdict, others\_score2\_wdict

## Method 2: Modified Diluted - 1U:

## Carbon Template

wNm\_c\_dict\_1U, wNm\_s\_dict\_1U, wNm\_score2\_dict\_1U carbon\_c\_dict\_1U, carbon\_s\_dict\_1U, carbon\_score2\_dict\_1U kphTrO1\_c\_dict\_1U, kphTrO1\_s\_dict\_1U, kphTrO1\_score2\_dict\_1U kphTrO2\_c\_dict\_1U, kphTrO2\_s\_dict\_1U, kphTrO2\_score2\_dict\_1U kphOthers\_c\_dict\_1U, kphOthers\_s\_dict\_1U, kphOthers\_score2\_dict\_1U others\_c\_dict\_1U, others\_score2\_dict\_1U

#### W Template

wNm\_c\_wdict\_1U, wNm\_s\_wdict\_1U, wNm\_score2\_wdict\_1U carbon\_c\_wdict\_1U, carbon\_s\_wdict\_1U, carbon\_score2\_wdict\_1U kphTrO1\_c\_wdict\_1U, kphTrO1\_s\_wdict\_1U, kphTrO1\_score2\_wdict\_1U kphTrO2\_c\_wdict\_1U, kphTrO2\_s\_wdict\_1U, kphTrO2\_score2\_wdict\_1U kphOthers\_c\_wdict\_1U, kphOthers\_s\_wdict\_1U, kphOthers\_score2\_wdict\_1U others\_c\_wdict\_1U, others\_s\_wdict\_1U, others\_score2\_wdict\_1U

## Method 3: Modified Undiluted Template

W Template getRanger2 findWOptimalC2 seeModWTemplate2

wNm\_c\_uwdict, wNm\_s\_uwdict, wNm\_score2\_uwdict carbon\_c\_uwdict, carbon\_s\_uwdict, carbon\_score2\_uwdict kphTrO1\_c\_uwdict, kphTrO1\_s\_uwdict, kphTrO1\_score2\_uwdict kphTrO2\_c\_uwdict, kphTrO2\_s\_uwdict, kphTrO2\_score2\_uwdict kphOthers\_c\_uwdict, kphOthers\_s\_uwdict, kphOthers\_score2\_uwdict others c\_uwdict, others s\_uwdict, others score2\_uwdict

<u>C Template</u> findCOptimalC2 seeModCTemplate2

wNm\_c\_ucdict, wNm\_s\_ucdict, wNm\_score2\_ucdict carbon\_c\_ucdict, carbon\_s\_ucdict, carbon\_score2\_ucdict kphTrO1\_c\_ucdict, kphTrO1\_s\_ucdict, kphTrO1\_score2\_ucdict kphTrO2\_c\_ucdict, kphTrO2\_s\_ucdict, kphTrO2\_score2\_ucdict kphOthers\_c\_ucdict, kphOthers\_s\_ucdict, kphOthers\_score2\_ucdict others\_c\_ucdict, others\_s\_ucdict, others\_score2\_ucdict

## Method 4: Slope Comparison

findOptimalM getWSlopes

wNm\_s1\_dict, wNm\_s2\_dict, wNm\_s3\_dict, wNm\_s4\_dict carbon\_s1\_dict, carbon\_s2\_dict, carbon\_s3\_dict, carbon\_s4\_dict kphTrO1\_s1\_dict, kphTrO1\_s2\_dict, kphTrO1\_s3\_dict, kphTrO1\_s4\_dict kphTrO2\_s1\_dict, kphTrO2\_s2\_dict, kphTrO2\_s3\_dict, kphTrO2\_s4\_dict kphOthers\_s1\_dict, kphOthers\_s2\_dict, kphOthers\_s3\_dict, kphOthers\_s4\_dict others\_s1\_dict, others\_s2\_dict, others\_s3\_dict, others\_s4\_dict allstars\_s1\_dict, allstars\_s2\_dict, allstars\_s3\_dict, allstars\_s4\_dict wNmNc\_s1\_dict, wNmNc\_s2\_dict, wNmNc\_s3\_dict, wNmNc\_s4\_dict