

cemekl, cevmdl: plasma emission, multi-temperature using mekal

A multi-temperature plasma emission model built from the mekal code. Emission measures follow a power-law in temperature ($dEM = (T/T_{max})^{\alpha-1} dT/T_{max}$). The switch parameter determines whether the mekal code will be run to calculate the model spectrum for each temperature or whether the model spectrum will be interpolated from a pre-calculated table. The former is slower but more accurate.

For the **cemekl** version, the abundance ratios are set by the **abund** command. The cevmdl variant allows the user to define the abundances.

The parameters for **cemekl** are:

par1= α	index for power-law emissivity function
par2= T_{max}	maximum temperature
par3	n_H (cm ⁻³)
par4	abundance relative to solar
par5	redshift z
	0 \Rightarrow calculate
par6	1 \Rightarrow interpolate
	2 \Rightarrow interpolate using APEC model
norm	Normalization

For the **cevmdl** variant the parameters are:

par1	index for power-law emissivity function
par2	maximum temperature
par3	n_H (cm ⁻³)
par4-17	abundance relative to solar Abundances for He, C, N, O, Ne, Na, Mg, Al, Si, S, Ar, Ca, Fe, Ni wrt Solar (defined by the abund command)
par18	redshift z

0 \Rightarrow calculate

par19 1 \Rightarrow interpolate

2 \Rightarrow interpolate using APEC model

norm Normalization