Assignment 2

Given the following data on  (J. mol‒1) corresponding to the bounding binary systems of Co-Cu-Fe-Ni, plot for Co10Cu30Fe60-*y*Ni*y* from *y*=0 to 60 at.% Ni using Muggianu, Colinet, and Kohler extrapolation methods (single plot with three curves, clearly marking each curve). Also report the numerical values of  for an equiatomic quaternary alloy computed using these extrapolation schemes. (Due date: 21-03-2018)

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| System |  |
| Co-Cu | *x*Co*x*Cu(+39332−1356(*x*Co‒*x*Cu) +7953(*x*Co‒*x*Cu)2−1119(*x*Co‒*x*Cu)3) |
| Co-Fe | *x*Co*x*Fe(−9312−1752(*x*Co‒*x*Fe)) |
| Co-Ni | *X*Co*x*Ni(+1331) |
| Cu-Fe | *x*Cu*x*Fe(+35626−1530(*x*Cu‒*x*Fe) +12714(*x*Cu‒*x*Fe)2+1177(*x*Cu‒*x*Fe)3) |
| Cu-Ni | *X*Cu*x*Ni(+12049−1862(*x*Cu‒*x*Ni)) |
| Fe-Ni | *X*Fe*x*Ni(−18379+9228(*x*Fe‒*x*Ni)) |