Attached is the revised edition.

Some comments of mine related to Mark's comments are below.

1.  Why 1 ps relaxation time?

This is somewhat arbitrary and usually not even listed within papers.  When conducting work when I first started, I found that varying the relaxation time can produce effects on the amount of defects present in the simulations.  The choice of 1 ps is somewhat arbitrary, in that it lies in the 'middle'.  As you move to shorter relaxation time, energy can be removed from the system too rapidly, dissipating the cascade and limiting the damage it creates.  If relaxation time is too long, there is an overall damping of the system that occurs, restricting movement, and limiting the amount of damage that can possibly be created.  So, it is a reasonable, but somewhat arbitrary middle ground.  The fact that we provide this information is important for reproducibility.

2.  Why 6 ps?

I chose 6 ps because it is sufficiently long enough after initiating the cascade such that the thermal spike has dissipated, and some diffusion is allowed.  If changing to 10ps, results would most likely not change, but perhaps by a very small fraction (i.e. 1% for a given data point, which would yield less than 1% change in the resulting value of the TDE).  If changing to 100ps, it is possible that a larger change could in fact occur, as some diffusion of interstitials exists at 300K and substantial diffusion exists at 500K.  Dealing with finite systems, we essentially want to remove the diffusion element from these systems.  We allow for 'instantaneous' recombination, within a few ps.  Anything more than that is neglected.  This is consistent with other groups doing similar work.  It is rare that relaxation times longer than 10-15ps are reported, unless VERY high energy cascades are involved.  We have especially low energy cascades, so I feel 6 ps is quite appropriate.

3.  What is beam spreading?

This is related to a statement that when comparing TDE values to experiment, adjustment for beam spreading needs to be taken into account.  A beam is incident at a specific angle, but a beam inherently has some 'width'.  Thus, a beam incident in the <100> direction is actually incident on <100> +/- 1 degree.  Or two degrees.  So, some amount of 'spreading' of the beam.  This non-perfect directional incidence is what is referred to.  This is discussed in the nordlund paper, and I felt discussing this point is beyond the scope of this paper.

4.  Why 4th order polynomial?

There is not a specific mathematical justification for using 4th order polynomials.  I had started with 3rd order, I increased the complexity to 4th order (I believe on the suggestion of Niels).  Utilizing higher order potentials is possible, but I feel with the amount of data points present in these graphs that using 5th or 6th order polynomials almost approaches a 'dots connected' kind of fit.  Which does not necessarily show overall trends, it just shows what the data looks like if the dots are connected.  I can include plots of 5th or 6th order polynomial fits if you would like to see how these charts change.  But for now I am keeping at 4th order.  Let me know if you would like to see this.