Pronko *et al.* Reply: We thank Gupta and Naik [1] for bringing our attention to work performed at their institution over 20 years ago [2] where certain similarities were observed with the data presented in our Letter [3].

We proposed a magnetic field interaction as one possible mechanism and supported the proposal by using a simple comparison with a conventional plasma centrifuge. The question being asked and answered in that discussion concerned the field strength needed to have a plasma centrifuge concept operational in the 7 cm distance from our ablation target to the thin film deposition substrate where a 2.5 cm radial enrichment separation was observed. The required field is 4 kG. This was then compared to the spatially averaged one-dimensional value of 44 kG obtained from extrapolating experimental magnetic field observations. Using a cubed root reduction, to account for three-dimensional expansion far from the ablation surface results in 3.5 kG as the average effective field across the region, a value that is close to the required field strength of 4 kG. Obviously this is an extremely simple comparison; however, it does make the point that adequate field strengths are available both close to the ablation surface and at a distance from it. In further consideration of the centrifuge model, it is the drift rotation rate of the entire plasma, in its transit to the deposition substrate, which is responsible for the isotope separation effect. As is stated by Geva *et al.* [4], in their detailed analysis of the plasma centrifuge phenomena, the individual gyromotion of electrons and ions has superimposed upon it a lower frequency, axis encircling azimuthal plasma rotation (the $E_r \times B_z$ drift), which is responsible for the isotope enrichment. The angular frequency of 3.3×105 rad/sec stated in our paper is, by definition, this bulk plasma rotation rate and is meaningful only in respect to the radial distribution observed on our thin film and its relation to the magnetic field comparison that was made above. To apply that frequency as a rotation rate for individual ions, which are undergoing collisions while executing their own gyrofrequencies within the plasma, is simply not meaningful in the context of the comparison. Extending discussions of magnetic field effects beyond this point and invoking detailed comparison with ion charge states and energy spectra requires a much more careful examination of the space and time dependence of the fields involved. This needs to be done in relation to the expansion rate of the plasma, the time evolution of the electromagnetic fields, and the average velocities of various ion species within the plasma where both single and multiple scattering events may be taking place. These comparisons and discussions are more properly suited to a separate paper. However, a few relevant points may be addressed here. The data set of ion energy spectra presented in our Letter is essentially raw spectra as obtained by time of flight analysis through a pair of collimating apertures that lead to an E/q electrostatic energy/charge analyzer having a multichannel plate output. In that form, the data appear to show the high-energy high-charge state ions as making the greatest contribution to the enriched isotopes. However, when these spectra are presented as energy-density distributions [(ions/cm^2)/eV], through incorporation of the energy dependent detector efficiency and acceptance resolution, a different picture emerges. The data as presented in our Letter (Fig. 2), after having undergone conversion to a proper energy-density distribution, have been presented, along with additional experimental results, in a subsequent conference proceedings report [5]. It is observed under these circumstances that lower energy ions make a much more significant contribution to the plasma. This is further confirmed by Langmuir probe data taken from our femtosecond laser plasmas, examples of which are presented in a companion paper [6]. We have observed enrichment effects in a wide range of elemental species [5], and it appears to be dependent only on the difference in mass of the observed isotopes and not on the absolute mass of the element being observed. Hydrodynamic expansion processes have been considered for such effects and are found to have a square root of absolute mass dependence in regard to the efficiency of proposed mass separation phenomena [7]. A centrifuge process, whether driven magnetically or otherwise, depends only on the mass difference of the enriched species and not on the absolute mass [4,8]. Also, the similarity of our observed results, for a wide range of materials in elemental and compound form [5], implies that details of resonant ionization are not playing a dominant role.

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