WHAT IS CLAIMED IS:

1. A method of forming an opening within a metallic structure of a workpiece comprising a dielectric structure and the metallic structure on the dielectric structure, wherein the opening formed in the metallic structure exposes a portion of the dielectric structure, the method comprising:

scanning a beam of laser energy directed onto the workpiece such that the beam of laser energy is incident upon the metallic structure, wherein the scanning includes addressing, in sequence, a plurality spot locations of a scan pattern by delivering the laser energy to each of the plurality of spot locations such that a distance between spot locations in pairs of consecutively-addressed spot locations of the plurality of spot locations is greater than a distance between spot locations in pairs of spatially-adjacent spot locations;

during scanning of the laser energy, heating a region of the metallic structure and vaporizing the dielectric structure adjacent to the heated region of the metallic structure; and

ejecting the heated region of the metallic structure from the workpiece under the influence of a pressure of the vaporized dielectric structure only after all spot locations of the plurality of spot locations have been addressed.

2. The method of claim 1, wherein the laser energy has a wavelength in the infrared range of the electromagnetic spectrum.

3. The method of claim 1, wherein the laser energy has a wavelength in the ultraviolet range of the electromagnetic spectrum.

4. The method of claim 1, wherein scanning the beam of laser energy includes delivering at least one laser pulse to each of the plurality of spot locations.

5. The method of claim 4, wherein scanning the beam of laser energy includes delivering only one laser pulse to at least one of the plurality of spot locations.

6. The method of claim 1, wherein scanning the beam of laser energy to deliver the laser energy comprises:

°°°

generating, at a laser source, a first laser pulse; and

temporally dividing the first laser pulse into a plurality of second laser pulses, wherein at least two of the plurality of second laser pulses have different pulse durations.

7. The method of claim 1, wherein scanning the beam of laser energy to deliver the laser energy comprises:

generating, at a laser source, a first laser pulse; and

temporally dividing the first laser pulse into a plurality of second laser pulses, wherein at least two of the plurality of second laser pulses have the same pulse duration.

8. The method of claim 6 or claim 7, wherein the pulse duration of at least one of the plurality of second laser pulses is less than or equal to 1 μs.

9. The method of claim 6 or claim 7, wherein at least two of the plurality of second laser pulses have different peak powers.

10. The method of claim 6 or claim 7, wherein at least two of the plurality of second laser pulses have the same peak power.

11. The method of claim 6 or claim 7, wherein temporally dividing the first laser pulse comprises diffracting the first laser pulse.

12. The method of claim 1, wherein delivering the laser energy, in sequence, to the plurality of spatially different spot locations of the scan pattern includes delivering the laser energy to a different spot location at a rate greater than or equal to 20 kHz.

13. The method of claim 12, wherein the rate is greater than or equal to 1 MHz.

14. The method of claim 1, wherein

a portion of the metallic structure is melted when the metallic structure is ejected from the workpiece.

15. The method of claim 14, wherein another portion of the metallic structure is unmelted when the metallic structure ejected from the workpiece, wherein the unmelted portion is surrounded by the melted portion.

16. An apparatus for forming a feature within a workpiece comprising a metallic structure and a dielectric structure,

wherein the feature includes an opening formed in the metallic structure, the apparatus comprising:

a laser source operative to generate a beam of laser energy,

wherein the beam of laser energy is propagatable along a beam path to be incident upon the metallic structure of the workpiece;

a positioner operative to deflect the beam path; and

a controller communicatively coupled to the positioner,

wherein the controller is configured to control an operation of the positioner to effect a scanning process as recited in claim 1.

17. A controller for use with an apparatus for forming a feature within a workpiece comprising a metallic structure and a dielectric structure,

wherein the feature includes an opening formed in the metallic structure and

wherein the apparatus includes

a laser source operative to generate a beam of laser energy,

wherein the beam of laser energy is propagatable along a beam path to be incident upon the metallic structure of the workpiece, and

a positioner operative to deflect the beam path, the controller comprising:

a processor communicatively coupled to the positioner; and

memory accessible to the processor,

wherein the memory has instructions stored thereon which, when executed by the processor, cause the processor to control an operation of the positioner to effect a scanning process as recited in claim 1.

°°°

18. A non-transitory computer-readable medium for use with an apparatus for forming a feature within a workpiece comprising a metallic structure and a dielectric structure, wherein the feature includes an opening formed in the metallic structure and wherein the apparatus includes a laser source operative to generate a beam of laser energy, wherein the beam of laser energy is propagatable along a beam path to be incident upon the metallic structure of the workpiece, a positioner operative to deflect the beam path, and a controller operative to control an operation of the positioner, the non-transitory computer-readable medium having stored thereon instructions which, when executed by the controller, cause the controller to carry out the method recited in claim 1.

19. The method of claim 1, wherein the laser energy has a wavelength in the green range of the electromagnetic spectrum.

20. The method of claim 1, further comprising directing the beam of laser energy such that, during the scanning, the laser energy is continuously directed onto the workpiece over a period of time when spot locations of at least one pair of consecutively-addressed spot locations are addressed.

°°°